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IN THE SPOTLIGHT:

PASSENGER FACILITATION

Issue 5, 2025

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Issue 4, 2025



Issue 2, 2025



Issue 3, 2025



Issue 1, 2025

Clear skies ahead

Editor. Ioe Bates. reflects on a busy and eventful year for Airport World and the 'passenger facilitation' theme of this issue.

ith our December/January 2026 issue being published in January next year, it feels right to use my last opinion piece of 2025 to reflect on an unexpectedly eventful year for Airport World magazine.

Now under new ownership and operating as an independent publication for the first time in our 30-year history, it is fair to say that this year hasn't been without its challenges.

Nevertheless, it hasn't stopped us from producing some terrific issues, starting with our 'new technology' themed first issue of 2025 in which Pittsburgh International Airport was our lead airport feature, followed by issues focused on 'safety & security', 'planning & design', 'innovation' and now 'passenger facilitation'.

In addition to Pittsburgh (PIT), we have turned the spotlight on Delhi's Indira Gandhi International Airport; Lithuania's airport system; Hartsfield-Jackson Atlanta International Airport; and Incheon International Airport, while covering a multitude of issues ranging from the pioneering design and construction of new facilities, robotic technology and sustainability leadership to the opening of a 'hotel' for dogs at Rome Fiumicino Airport.

Now on a more stable footing, I am confident that we will do even better next year as we strive to showcase airport excellence and address the challenges and exciting opportunities facing the industry today.

My confidence in the future is boosted by the continued loyalty of our readers and the fact that we remain on good terms with ACI World. Indeed, I look forward to catching up with director general Justin Erbacci and many more of the ACI World team at the upcoming Airports Innovate conference in Busan, South Korea, at the end of November.



So, what of this issue? The theme of the October/ November edition is 'passenger facilitation', a topic that encompasses everything from the provision of good customer service and operational efficiency to utilising passenger friendly facilities.

In the themed section we take a closer look at San Diego International Airport's new Terminal 1; digital wayfinding; innovative F&B; and the key role restrooms play in the overall airport experience for passengers.

The section also contains features about enhancing communication with passengers; how airline digitalisation will transform airport departure halls; and Quito's decision to embrace sunflower lanyards for passengers with hidden disabilities.

The lead airport feature is on Amman's Queen Alia International Airport, where Airport International Group (AIG) CEO, Nicolas Deviller, tells us more about the growth, development and expansion plans of Jordan's air gateway to the world.

Elsewhere in this issue, we have a special report on new infrastructure that covers the planning, development and, in some cases the opening, of key new facilities across the globe.

Competition for connecting passengers in the Middle East; the latest IT innovation at Singapore Changi Airport; cybersecurity; safeguarding airport operations from litigation; and how artwork and advertising can work together at airports also come under the microscope in this issue.

We round the issue out with our regular 'people matters' column and airport supplier news and views in the 'business exchange' section.

I hope you agree that it's another cracking issue of your favourite airport magazine. We look forward to bringing you more of the same in 2026.









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Sustaining momentum

We find out more about the growth, development and expansion plans of Queen Alia International Airport, Jordan's air gateway to the world.

ith passenger traffic on the rise, a newly extended concession agreement for Airports International Group (AIG) and plans underway for the next phase of its infrastructure development, these are busy times for Jordan's Queen Alia International Airport.

The Amman gateway – commonly referred to as QAIA by AIG instead of its given IATA code of AMM – handled a record 4.4 million passengers in the first half of 2025.

Its best-ever first-half year performance for passenger traffic represented a 6% rise over H1 2024. Aircraft movements were also up by 2.2% during the same period to 36,331.

And the upward trend has continued into the second half of the year with August proving to be its busiest ever month, while QAIA's recently released traffic figures for September show that it handled 834,894 passengers during the month, a notable 15.7% rise on the corresponding period a year ago.

The gateway also recorded 6,965 air traffic movements and processed 6,282 tons of cargo during September 2025.

The new figures mean that QAIA handled a total of 7.3 million passengers (+7.5%) and 59,268 aircraft movements (+4.7%) in the first nine months of 2025.

"September 2025 marked a steady return to regular traffic levels at QAIA, signalling a solid rebound after the summer season," noted Airport International Group CEO, Nicolas Deviller.

"This recovery was supported by the return of Jordanian expatriates, consistent travel demand and enhanced airline connectivity.

"These results underscore QAIA's resilience and operational stability despite regional challenges and emphasise the dedication of our teams and partners.

"Looking ahead, we remain committed to sustaining this momentum, elevating the passenger experience and reinforcing QAIA's role as Jordan's prime gateway to the world."

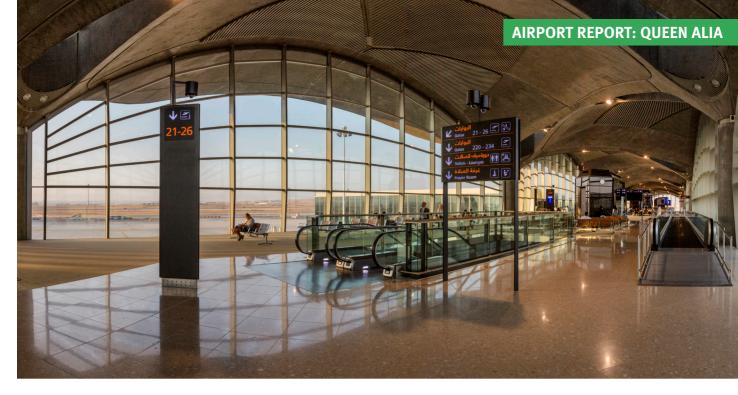
The upward trend in passenger numbers is very welcome after last year's slight dip in passenger traffic, which AIG attributed to "the challenges posed by regional tensions, which impacted the overall performance" at QAIA.

The difficult operating climate led to a 4.4% decline in passengers compared to 2023 as a total of 8.79 million passengers passed through QAIA's facilities in 2024. On the plus side though, cargo volumes soared by 12% to 75,450 tons.

DEVELOPMENT OF QUEEN ALIA UNDER AIG

While it hasn't been all plane sailing for AIG since it was awarded the concession to operate QAIA in 2007 – the sharp drop in passenger numbers during the COVID-19 pandemic being a case in point – there is no denying that its leadership has been the catalyst for the transformation of the gateway.

Indeed, since AIG signed the Build-Operate-Transfer (BOT) concession agreement to manage the rehabilitation, expansion and operation of



the airport, its traffic numbers have more than doubled from 3.9 million in 2007 to 8.7 million in 2024, while earning a number of prestigious customer service and sustainability achievements.

These have included QAIA being named Best Airport by Size and Region (Middle East, 5 to 15 million passengers) eight times in ACI World's Airport Service Quality (ASQ) Survey, the world's leading airport customer experience benchmarking programme.

It has also twice been chosen by passengers as the 'Most Enjoyable Airport in the Middle East' in the ASQ programme and, in 2024, attained a 4-Star Airport Rating following its first-ever participation in the SKYTRAX World Airport Audit, signifying that staff service or product standards meet a good quality level.

If that wasn't impressive enough, Queen Alia also became the first airport in the Middle East to achieve Level 3 of ACI World's Airport Customer Experience Accreditation programme.

So, is it safe to say that being customer service focused is a key strategy of Airport International Group?

Deviller says: "For us at Airport International Group, customer service is a mindset, not a function. Every decision we make is rooted in our responsibility to create a seamless, welcoming journey for passengers, while shaping QAIA into a future-ready airport that reflects Jordan's sustainability ambitions.

"By investing in people, partnerships and eco-conscious infrastructure, we are building a gateway that grows with purpose and resilience."

TOP OF THE AGENDA: SUSTAINABLE DEVELOPMENT

Deviller and Airport International Group are also very proud that QAIA became the first airport in the Middle East and second in Asia-Pacific to attain Level 4+ status in the Airport Carbon Accreditation programme.

Recently renewed until May 2028, the certificate reaffirms AlG's steadfast commitment to environmental stewardship, climate action and supporting the global aviation sector's goal of achieving net-zero carbon emissions by 2050.

Deviller believes that the renewed accreditation acknowledges QAIA's exceptional work in aligning its carbon management strategies with global climate goals by reaching absolute emissions reductions, responsibly compensating for residual emissions under its control, and actively engaging business partners in these efforts.

Airport International Group notes that the accreditation will also largely benefit QAIA's partners, such as the airlines, by supporting them in meeting their decarbonisation objectives.

Indeed, it states that by leveraging the airport's advanced sustainability initiatives, its partners can reduce their carbon footprint and enhance their environmental performance, "contributing meaningfully to the broader goal of a sustainable aviation industry".

"Reducing QAIA's carbon footprint is a responsibility that we at Airport International Group have embraced since day one," notes Deviller.

"This renewal demonstrates to our passengers, partners, grantor and wider community that QAIA is not just connecting people, but also leading the charge in climate-conscious operations and sustainable transformation.

"We extend our sincere gratitude and congratulations to our team and stakeholders for their inspiring dedication to elevating QAIA as a trailblazing gateway within Jordan and the region."

The carbon accreditation milestone complements a broader environmental journey driven by Airport International Group. Shortly after inaugurating the new terminal building in 2013, the airport embarked on a strategic decarbonisation path by joining the Airport Carbon Accreditation programme.



Over the past decade, it has steadily advanced through the programme's tiers, becoming the first airport in the Middle East to secure most of them, culminating in Level 4+ certification.

Moreover, QAIA's 4.8MWac Solar Farm, which generates over 10.5GWh of clean electricity annually, meets nearly 37% of Airport International Group's operational energy needs and eliminates approximately 12,000 tons of CO2 emissions annually.

This landmark project not only places QAIA among the largest solar-powered airports in the MENA region but also furthers Jordan's national ambition to increase the share of renewables in its energy mix.

Deviller is quick to point out that QAIA's track record in environmental stewardship has earned it repeated recognition by ACI Asia-Pacific and Middle East's Green Airports Recognition programme, with a Silver award in 2017 for Energy Management and a Gold award in 2022 for Carbon Management.

In tandem, AIG has contributed to climate mitigation and biodiversity preservation by launching tree-planting campaigns in Al Jizah and Dibeen Forest Reserve, underscoring a holistic approach to sustainability that extends beyond airport grounds.

LOOKING TO THE FUTURE

Earlier this year, AIG signed a joint declaration with Jordan's Ministry of Transport reaffirming its commitment to the modernisation, development and future growth of Queen Alia International Airport.

It notes that this reflects the strength of its partnership with the Government of Jordan (GoJ) as its grantor – one built on trust, transparency and a shared ambition to ensure QAIA continues to serve as the Kingdom's global gateway and a source of national pride.

The joint declaration follows the government's decision last year to extend AIG's Build-Operate-Transfer (BOT) concession for the gateway until 2039, effectively ensuring its continued investment in the rehabilitation, expansion and operation of Queen Alia International Airport.

With this renewed commitment, the Ministry of Transport – currently led by Minister of Transport, Dr Nidal Qatamin – and Airport International Group have reinforced their focus on the developing

the airport, and more specifically on "upholding the highest standards of safety, security and operational efficiency at QAIA".

Both parties also emphasised their dedication to enhancing the passenger experience through premium services, real estate development, innovation and stakeholder incentives, while advancing sustainability initiatives by reducing carbon emissions and adopting renewable energy solutions.

Put another way, the extension of the concession agreement is seen as pivotal to developing and strengthening QAIA's position as a leading regional and global aviation centre.

It also aligns with the GoJ's strategy to support the air transport sector and boost QAIA's international competitiveness.

And it backs efforts to improve passenger services, upgrade infrastructure and integrate advanced technology across airport facilities in a bid to ensure seamless and efficient travel.

Several airport projects are underway or have been completed, including a capacity expansion plan to accommodate 18 million passengers annually, the installation of nine state-of-the-art e-gates, a water supply enhancement project, security checkpoint upgrades at QAIA's entrances and exits and studies for rehabilitating the southern runway.

AIG notes that to ensure the continued development of QAIA, ongoing collaboration and co-ordination among all relevant stakeholders is required to "maintain the highest standards of performance and aviation competitiveness, contributing to national economic growth and cementing Jordan's standing as a key air transport centre in the region".

From Airport International Group's perspective, Deviller believes that extending the concession by another seven years, with the possibility of future extensions, gives the airport operator the opportunity to take things to the next level in terms of expanding QAIA's capacity and worldwide connectivity, integrating smart technologies and advancing sustainability initiatives.

Can he give us an inside scoop of what we can expect in the future in terms of expanding/growing the airport's key airport infrastructure and the timeframe for their development?



Deviller says: "At QAIA, we have set forth an ambitious enhancement plan to expand our capacity from 12 to 18 million passengers annually, through the execution of 15 pivotal projects across our terminal and airside facilities by 2034.

"Alongside these long-term developments, we have completed multiple initiatives to meet immediate operational and business needs, while keeping sustainability at the heart of our efforts.

"From constructing our onsite solar farm to securing a dedicated water pipeline for reliable supply and improving accessibility across the airport, every step underscores our unwavering commitment to sustainable growth, operational excellence and preparing QAIA to meet the needs of the future."

AIRLINES AND ROUTE NETWORK

QAIA's growing route network means that during its busiest ever month in August it was served by 35 airlines operating scheduled services to 67 destinations in 36 countries across the Middle East, Europe, Asia, North America and Africa regions.

The top five airlines serving QAIA in terms of traffic passenger traffic are Royal Jordanian, flynas, Jordan Aviation, Qatar Airways and Emirates. The most popular destinations served from Amman are Dubai, Istanbul, Riyadh, Cairo and Jeddah.

Eurowings became the latest airline to launch services to QAIA when it commenced a non-stop service between Stuttgart and Amman on Monday, October 27. The German airline will increase to two weekly flights on the route in December.

Speaking about the new addition to Amman's list of airlines, Deviller enthused: "We are delighted to welcome Eurowings to QAIA, marking yet another milestone in our pursuit of expanding Jordan's connectivity with key European markets.

"As the value airline of Lufthansa Group, Eurowings offers passengers affordable and flexible options to explore both Jordan and Germany, supporting leisure and business travel between the two nations.

"We look forward to building a strong and lasting relationship with Eurowings as we continue shaping a welcoming travel experience that feels like home at Jordan's prime gateway to the world." In the first half of 2025, QAIA witnessed a significant rebound in airline activity, marked by the resumption of services by several carriers and the introduction of new airlines and routes.

For example, flyadeal and Ajet resumed operations at QAIA, while Royal Jordanian grew its global network with the launch of its own routes to Damascus, Aleppo, Mumbai and Washington DC. Meanwhile, Libyan Wings and SunExpress commenced operations at the airport.

These developments underscore QAIA's growing appeal as a regional hub and its continued efforts to enhance connectivity across key markets.

They follow the introduction of new direct routes to London Stansted and Manchester in the UK, Berlin in Germany, AlUla in Saudi Arabia (via Royal Jordanian) and Moscow in Russia (via Jordan Aviation and Royal Jordanian) last year.

Deviller says: "We are fortunate to already have strong connectivity to North America through Royal Jordanian's direct services to key cities in both Canada and the United States.

"Supporting our national airline's ambitious development is vital to our mission as its growth directly strengthens QAIA's role as a strategic gateway for Jordan."

ECONOMIC ENGINE

According to a comprehensive study commissioned by AIG and conducted by IATA Consulting, in 2019, QAIA supported 238,000 jobs and \$3.53 billion in GDP.

By 2032, these figures are expected to increase to 278,000 jobs and \$5.5 billion in GDP. Underscoring its socio-economic significance and standing as the main entry point to the Kingdom, QAIA processes over 97% of passengers and 99% of cargo entering the country.

QAIA operator, Airport International Group, is a Jordanian company made up of local and international investors with proven experience in airport rehabilitation, enhancement, operation and management.

Its main stakeholder is global airport operator, Groupe ADP (51%), with the other shareholders comprising Meridiam Eastern Europe Investments (32%), Mena Airport Holding Ltd (12.25%) and Edgo Investment Holdings Ltd (4.75%).

AW



Big, bold and beautiful

San Diego International Airport's new Terminal 1 was designed for the passenger experience, writes Terence Young, aviation leader, design director and principal at Gensler.

hroughout my architectural career I have designed airports around the world from LAX to Incheon, and over the years I've seen how the aviation industry responds to trends, with each new terminal capturing a snapshot of the airline industry at a specific moment in time.

However, the scale of an airport requires enormous investments of time and money, meaning the latest trends must be resilient over time, or we risk designing for obsolescence.

As a result, we must create structures that will work well for passengers now and in the future. We accomplish this through meaningful, human-centred designs that focus on a seamless passenger experience and provide flexibility for airports to evolve with the needs of passengers.

As global travel and passengers' expectations change, airports are expected to serve not just as transit points, but as immersive environments that shape first impressions and imprint lasting memories.

The modern airport must balance operational efficiency with cultural expression, environmental responsibility, and technological innovation. Couple this with the transformation of the United States' aging airports, as outdated facilities receive billions of dollars in funding for updates via the US infrastructure bill.

Many operators are capitalising on this moment to rethink the passenger experience and how travellers engage with their city – from wheels down to wheels up.

Gensler's recent work with Turner-Flatiron on the redevelopment of Terminal 1 at San Diego International Airport (SAN) represents more than a capital improvement – it's a transformation that reimagines the traveller experience at the nation's busiest single-runway commercial airport.

The new terminal replaces the original 1960s-era structure with a facility nearly three times larger – expanding from 336,000 square feet to approximately 1 million square feet – and positions San Diego as a hub of innovation, connectivity, and sustainability for decades to come.

With 19 gates, 17 new food and retail concessions, 13 security lanes, and seven baggage carousels, the facility vastly expands SAN's ability to better serve travellers. A second phase, scheduled for completion in early 2028, will add 11 additional gates.

ALL ROADS LEAD TO THE TERMINAL

We know that a successful airport design goes beyond the walls of the terminal and encompasses the journey to arrivals and departures. If that isn't seamless, the passenger experience is off to a rocky start.

For Terminal 1, our team redesigned the roadway system to include 1.2 miles of new airport access roads, an elevated departures roadway, an extended arrivals kerb, and two new passenger bridges linking the terminal to a parking and transportation plaza.

The integration of new passenger processing eases congestion, which was a hallmark of the old T1 SAN experience, while introducing a ground transportation plaza, pedestrian-friendly pathways, and multi-use trails to integrate the terminal with the city, reinforcing its role as a civic and cultural gateway.



The result is a seamless drop-off and pick-up experience that reduces friction in getting travellers to their destination.

AIRPORT AS FRONT DOOR

More than just infrastructure, airports increasingly serve as cultural front doors that reflect the identity and aspirations of the city they serve. When we designed Terminal 1, we aimed to celebrate Southern California's natural beauty by bringing in abundant daylight, allowing for expansive views from within and using local materials at every turn.

We prioritised a seamless, passenger-focused experience for all travellers, knowing that San Diego as a community is a diverse and welcoming population. In addition, we recognise that every passenger experiencing an airport is having a different experience.

From natural wayfinding to a variety of amenities, the design team provided a journey meant to reduce stress and maximise comfort, acknowledging neurodiversity and stresses which travellers often feel.

These guiding principles shaped every aspect of Terminal 1's design, where architecture, art, and user experience converge to create a welcoming gateway to San Diego.

The curved, fritted glass panels of the 80oft long terminal façade is itself a piece of public art titled 'Luminous Wave' designed in collaboration with artist James Carpenter. The filtered sunlight illuminates the ticketing hall while reducing glare on monitors and wayfinding screens.

The structure's braced columns minimise interior obstructions and provide conditioned air. The wave-inspired wood ceilings and acoustic treatments create a calming security experience and acknowledge San Diego's distinct ties to the ocean.

The terminal celebrates the variety of the surrounding San Diego landscape through experiential design moments both large and small. An outdoor dining terrace with views of the San Diego skyline and Harbor Island provide a reprieve for passengers who traditionally have been relegated indoors once they pass through security.

WHERE PERFORMANCE MEETS PLACE

Terminal 1 is a cornerstone of SAN's long-term airport campus transformation plan and aligns with the City of San Diego's Climate Action Plan, advancing a vision for airports that are efficient, resilient, and deeply connected to the communities they serve.

The new terminal is pursuing LEED v4 Silver certification, Parksmart Gold for the parking plaza, and Envision v3 Silver for infrastructure performance.

It operates on 100% carbon-free electricity, supported by stormwater reuse systems, a 900,000-gallon underground cistern, and a roof designed to accommodate a 4MW solar array.

The terminal is projected to reduce total energy use by 20% and embodied carbon by more than 30%, with a structural lifespan exceeding 100 years.

San Diego's Terminal 1 also reflects a growing industry trend: designing for the leisure traveller.

As business travel declines and discretionary travel surges, airports are adapting to longer dwell times and shifting expectations. Gensler's design approach embraces this shift by curating environments that invite exploration, relaxation, and personalisation.

Terminal 1 signals a turning point for the aviation industry, proving that an airport can be both a high-performance engine and a reflection of its city's character while setting a new standard for what travellers should expect worldwide. Airports are no longer judged only by how many planes they move, but by how well they move people — through experiences that restore calm, operations that cut carbon, and connections that drive regional economies.

As designers, we have the opportunity to shape not just how people move, but how they feel, while moving.

I believe the next generation of airports will be defined by empathy, adaptability, and a deep connection to place. By improving the passenger experience, we're improving the flying experience.







Changing the menu

With global travel retail sales at airports yet to return to pre-pandemic levels, Kavanagh Communication's John Matheson considers the potential economic and customer service benefits of F&B innovation.

Ithough global traffic continues to recover well beyond 2019 levels, the performance of the travel retail market has struggled to keep pace with traffic growth.

Last year saw passenger traffic volumes of 9.5 billion, but total retail sales of \$74.1 billion lagged significantly at 13% below 2019 levels (Source: Kearney), and F&B has outperformed its retail neighbour.

Globally, the airport F&B market grew to \$22.7 billion in 2024, with a projected CAGR of 7.1% (2025-2033), which will deliver a market of \$42.3 billion by 2033 (Source: Data Intelo).

As travel retail faces a rising challenge to grow its conversion and average transaction value, the F&B offer is becoming an even more influential element in the passenger's airport experience.

At almost all airports, the F&B offer achieves notably higher penetration rates than the retail offer, with around 60-80% of passengers making a purchase (Source: ACI).

Rising traffic and increased dwell times, alongside the often-limited appeal of the inflight F&B offer, are creating stronger revenue opportunities within the terminals.

The post-2019 period has obviously seen a significant shift in the pace of change in passenger demands from their airport experience in everything from security and health procedures to digitalisation and contactless services, and these behavioural adjustments have helped F&B to grow in importance versus the retail offer.

Passenger expectations of airport F&B have risen, and, while traditional fast food formats and food courts still dominate, these operations have had to raise their standards for customers demanding greater quality and choice and enhanced service across the whole F&B offer.

That offer also increasingly needs to reflect the airport's location, incorporating local/regional menus, artisanal products and authentic local brands.

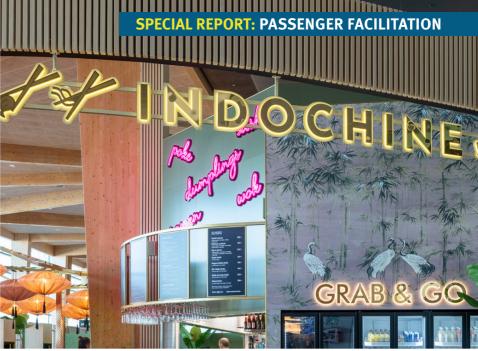
Particularly driven by the demands of Gen X and Millennials, and increasingly now by the rising influence of Gen Z, F&B operators have also had to respond to increased interest in health and wellness, including demand for plant-based menu options as well as a sharper focus on sustainability in both food products and packaging, especially in takeaway and 'grab & go' outlets.

As airports continue to develop a sense of place as a mark of differentiation of their location and customer experience, F&B has become an increasingly powerful contributor.

In response to this, the world's biggest travel retail operator, Avolta, has developed an aggressive global growth strategy in F&B, built on the company's formation from the 2023 amalgamation of retailer Dufry and Autogrill, the world's leading provider of food and beverage services for travellers.

Avolta's focus includes the development of a portfolio of core F&B concepts that can be adapted to locations worldwide, but it





has also recognised the power of F&B to provide an engaging, authentic and commercially effective flavour for each unique airport location.

Among its newest specialist localised concepts, for example, is The Hungry Club, launched at Adolfo Suárez Madrid-Barajas Airport Terminal T4 Satellite last year and followed by further openings at five further Spanish airport locations, including Madrid Airport terminals 2 and 4, Josep Tarradellas Barcelona–El Prat Airport Terminal 1, and Málaga–Costa del Sol Airport Terminal 3, with more launches to follow.

The concept was created in partnership with one of the world's leading chefs, Madrid-born Dabiz Muñoz.

Isabel Zarza, CEO Southern Europe Avolta, commented: "Combining innovative travel retail and F&B offers into new hybrid commercial concepts confirms Avolta's ability to revolutionise the traveller's experience through innovative, highly experiential shopping and dining locations, such as Hungry Club.

"The joint venture is part of our wider innovation and expansion path in Spain, introducing several new travel retail and F&B concepts across the airport channel.

"Leveraging on Aena's partnership and other collaborations, we can focus on the uniqueness and excellence of each territory, supporting local businesses and enhancing the airport's sense of place."

Avolta also partnered with Spanish football club Real Madrid to launch The Corner by Real Madrid, a premium food and retail hybrid concept operating in two terminals at Adolfo Suárez Madrid-Barajas Airport, offering a traditional Spanish F&B menu alongside official Real Madrid merchandise.

The concept is obviously most relevant and effective at Real Madrid's 'home' gateway but is planned for a further 11 Spanish airport locations and will expand to locations outside Spain.

And Real Madrid's global appeal – the club has around 400 million social media followers – makes this F&B concept viable at airports across the globe.

F&B is almost invariably more effective than retail in expressing the airport's sense of place, particularly when driven by the presence of local brands, and many airports are seeing a shift away from generic chains to region-specific eateries that deliver a sense of the location and the cultural identity of the region.

Copenhagen Airport, for example, was a pioneer in adopting what it called 'local hero' brands, especially in attracting popular F&B brands from downtown Copenhagen, thereby strengthening the local flavour, creating a unique F&B profile for the airport and deepening its links to the city.

From premium restaurants to burger bars, from cocktail lounges to microbreweries, this integration of authentic local flavours has become one of the strongest drivers of differentiation of the airport F&B offer, while simultaneously supporting each airport's individual sense of place.

With the stronger growth seen in F&B over retail performance since 2019 – and that gap is forecast to widen further – operators are exploiting the synergy of blended F&B/retail spaces as probably the single most important tactic to prop up long-term commercial performance.

This hybrid approach includes innovative concepts that blend retail and F&B within a single commercial unit, but the broader strategy is to create a blend of the two experiences that inspires performance synergies.

Although the strategy is developing globally, European operators have been most pressured to respond to try to arrest the region's relatively stronger weakening of retail performance since 2019.

Stockholm's Arlanda Airport, for example, recently completed a five-year project, the largest investment in its history, blending retail



and F&B across 11,000sqm and incorporating a strong focus on local brands to drive authenticity and appeal in the offer and local design to drive a unique sense of place for the airport.

Swedavia's director of marketing and commercial business development, Charlotte Ljunggren, said: "Our vision for The Marketplace has been to provide a shopping, food and drink experience with an element of the unexpected that will leave an impression on passengers.

"The investment builds on Swedavia's long-term commercial strategy, with its focus on variety, renewal and value for money. We want a wide variety of restaurants serving food from all over the world, and shops with a price range to suit all pockets. The Marketplace will offer something for all tastes and all budgets."

Similarly, at Rome Fiumicino Airport, ADR's latest major investment programme plans to enhance the non-Schengen F&B areas to increase the visual connection between the two commercial floor levels and create an enhanced, immersive F&B experience.

Across Europe, dozens of airport development programmes – including Frankfurt, Manchester, Sofia, Helsinki, Southampton, Belfast, Leeds – are seeking to drive future performance by incorporating a closer connection between the retail and F&B experiences in their newly developed spaces.

By innovating new concepts that aim to boost both retail and F&B performance, new F&B experiences also provide a vital element of novelty and surprise for the customer, which is especially crucial in attracting younger consumers, while also supporting the differentiation of the airport offer.

In the US, at Gerald R Ford International Airport, Avolta's Ink By Hudson concept blends a bookstore with a wine bar featuring local Michigan wines.

"[The concept] celebrates the state's rich cultural heritage and local flavours, narrating a compelling story and cultivating a Sense of Place," noted Avolta's chief operating officer for retail in North America, Brian Quinn.

"Hudson is excited about this distinctive addition to the lnk brand, and for the continued opportunity we see to make the journey as exciting as the destination for travellers by creating unique, hybrid retail and food and beverage experiences."

New formats are also being developed to enable small and mediumsized airports to adopt a hybridisation of retail and F&B, such as the 'Little' concept by Smartseller, a joint venture between major retailer Gebr. Heinemann and F&B specialist Casualfood.

The concept has been implemented for the first time at Ljubljana Airport with the Little Slovenia space situated in the waiting lounge of the non-Schengen area, combining an F&B offer with a duty free assortment.

Probably the most spectacular new hybrid launch was the Louis Vuitton store featuring the luxury brand's first UK café concept at London Heathrow Airport Terminal 2, including a stunningly designed store facade.

The space, which covers more than 300sqm, presents a combination of a large collection of luxury fashion goods with a stylish café that echoes the premium positioning of the Louis Vuitton brand and has become a 'must see' (and 'must post') for travellers.

It offers a premium experience in both retail and F&B, but, crucially, the experience is at least as important, if not more so, than the products. It offers a unique and memorable luxury experience at the airport – and almost every customer shares it on social media.

F&B operators are learning that the customer experience and the story they can share with friends and family are as important as the menu.

Beyond an airport, Changing the World

Incheon airport, which has set new standards for airports over the past 24 years, is now stepping beyond the boundaries of airports to become a global platform. A new airport, created by the AI innovation Hub and hyper-connected mobility.

From a global mega hub to a hub of digital innovation, Incheon Airport is once again soaring toward a new era.





The **bottom** line

By reframing the restroom as a key component of passenger experience, airports can differentiate themselves and enhance the entire customer journey, writes Tork's Katrin Ferge.

irport operators know there's no one-size-fits-all recipe for success. Though, the financial incentive to continually improve the terminal is clear, with ACI World <u>research</u> showing that a 1% increase in passenger satisfaction can lead to a 1.5% growth in non-aeronautical revenue.

As airport operators work to optimise the passenger experience, they focus on everything from frictionless check-in to diverse retail and experiential options. Yet, a surprising barrier to this goal is hiding in plain sight – the restroom.

More than a matter of personal preference, restroom cleanliness represents a significant opportunity to protect and grow business performance.

Recent data from <u>Tork</u> shows that after a poor restroom experience, 23% of people deliberately limit what they eat and drink to avoid using it again, and 28% spend less time in a place altogether.

And while nearly half of airport travellers have high expectations for hygiene, only 28% feel those standards are met, revealing a massive experience gap that can translate directly into lost terminal sales and lower passenger satisfaction.

These findings, while striking, also point to a clear opportunity. By reframing the restroom as a key component of passenger experience, airports can differentiate themselves and enhance the entire customer journey.

Implementing a hygiene strategy built on three pillars – data-driven operations, high-capacity systems, and accessible design can close this experience gap, recover lost revenue, and solidify reputation.

PILLAR #1: SHIFT FROM A REACTIVE TO A DATA-DRIVEN CLEANING MODEL

The traditional method of cleaning restrooms on a fixed schedule is no longer sufficient in a world of increasingly high standards. It guarantees that some restrooms are cleaned when they don't need it, while high-traffic areas get overlooked.

In addition to creating a poor passenger experience, this reactive approach wastes valuable staff time and resources.

The solution is to let real-time data guide maintenance operations. Data-driven cleaning – powered by connected dispensers and people counters – tells staff exactly which areas and restrooms need service and when.

Instead of guessing, maintenance staff can focus their efforts where they are needed most. This proactive model eliminates product runouts, a frequent complaint for travellers, and ensures a consistently high standard of cleanliness.

Just as importantly, it empowers cleaning staff, reducing their stress and allowing them to focus on detailed cleaning work that makes a visible difference to passengers.



PILLAR #2: UPGRADE TO PEAK-READY DISPENSER SYSTEMS

An airport's operational resilience is tested daily during intense waves of traffic. In the restroom, dispensers are often the weakest link, either running out of supply, jamming, or not working entirely.

This negative experience – from the passenger who finds an empty dispenser to the cleaning staff who become overwhelmed by complaints – can be avoided by utilising hygiene systems specifically designed to perform under pressure and manage high-volume surges.

High-capacity, easy-to-refill dispensers are essential. They hold more product, drastically reducing the need for refills during busy periods. But the benefits go beyond capacity. Investing in modern, easy-to-use systems is also a direct investment in staff efficiency and retention.

<u>Research</u> shows 51% of cleaners report that if dispensers were quicker and easier to refill, they would have more time for other essential cleaning tasks.

By upgrading dispensers across the terminal and making sure they are well-placed and regularly stocked, teams can build resilience and empower cleaning staff to keep up during the busiest travel surges.

Plus, this modern approach to hygiene also strongly supports an airport's sustainability goals. A data-driven service model reduces the unnecessary use of water and cleaning chemicals, while high-capacity systems prevent paper waste.

PILLAR #3: DESIGN RESTROOMS WITH EVERY TRAVELLER IN MIND

A clean restroom is the baseline, but to create an exceptional experience that drives positive passenger experience, teams must consider how to make restrooms that work for everyone.

For the 54% of people that contend with some form of physical or cognitive challenge, many of them invisible, a standard restroom can quickly turn into a stressful environment.

Barriers to hygiene are everywhere in the restroom but often are not well-known to those operating and maintaining restrooms.

For example, loud hand dryers can be overwhelming for travellers with sensory sensitivities.

Similarly, poorly designed dispensers can be a barrier for those with arthritis or limited mobility. While certain soaps or hand sanitisers can be especially tough on skin for those with eczema or skin sensitives.

By offering the option of paper hand towels playing calming music to mask unwanted noises, ensuring dispensers are easy to use for everyone, and providing clear signage signalling the changes made to promote inclusive hygiene, airports can send a powerful message of care.

These small changes reduce stress and show travellers that their needs are considered, fostering a sense of trust that improves satisfaction, drives revenue, and ensures a world-class passenger experience.

CLEANER RESTROOMS IMPROVE THE AIRPORT EXPERIENCE AND BUSINESS PERFORMANCE

Ultimately, these strategic upgrades create an environment where visitors feel comfortable arriving early, lingering longer, and fully patronising terminal shops and restaurants.

In a competitive market, this enhanced experience can become a powerful differentiator, even potentially leading to travellers choosing one airport over another to start their journey.

By refining workflows and ensuring access to easy-to-use hygiene products, airports can transform a costly liability into a strategic asset, creating a better journey for every passenger while driving the non-aeronautical revenue that is critical to their success.

About the author

Katrin Ferge is Tork's regional manager for commercial.

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Finding the way

Embracing the passenger experience is the new competitive advantage for airports, writes Acuity Brands' digital and wayfinding expert, Andrew Dallmann.

s passenger numbers rise, the challenge of enhancing the customer experience inevitably becomes more of a challenge for the world's airports as increased volumes puts a greater strain on existing facilities and manpower.

This year, *more than 5.2 billion* people are expected to fly. As numbers climb, so do the familiar complaints: confusing signage, long security lines, difficulty finding food or restrooms, random gate changes without clear guidance, and too few staff members to help when something goes wrong.

These customer pain points aren't minor inconveniences. People who feel rushed, overwhelmed, or lost in the vast spaces of unfamiliar terminals are less likely to spend money.

<u>Studies</u> have shown that for every 10 minutes a person spends waiting in line or wandering around in search of amenities, retail spending is reduced by up to 30%. Across millions of travellers, that lost revenue adds up fast. Indeed, according to the study, a key finding is the concept of an emotional experience gap between what the passenger expects and what the airport delvers.

This, it is claimed, represented a staggering \$695 million in at-risk revenue across five major airports involved in the project.

Traditional signage and static infrastructure are no longer enough to support today's traveller expectations. What's needed is a more adaptive approach.

A new generation of indoor technologies, like real-time "blue dot" guidance and dynamic signage that personalises traveller needs, is helping airports transform how passengers move, orient themselves, and engage with the terminal environment.

These tools are solving the <u>problems</u> that signage alone can't fix, including unpredictability and information gaps. Some of the world's busiest airports are leading the way, showing that better navigation and communication not only improve passenger satisfaction, but they also support more efficient operations and measurable financial return.

In terminals where signs compete for attention and wayfinding feels inconsistent, people are more likely to spend time looking for staff to help them, or hover near gates out of uncertainty. As a result, they are less likely to explore restaurants, browse shops, or take advantage of airport services.

But tools that streamline movement and reduce confusion, including interactive maps, digital directional cues, and location-specific alerts, help passengers move through the terminal with more confidence. In turn, this lowers stress and increases dwell time in high-value areas like restaurants, gift shops, and lounges.

One of the most high-traffic airports in the world, London Heathrow in the UK, has made investments in <u>digital navigation</u> tools that guide passengers from check-in to gate. Mobile apps provide real-time walking directions throughout the terminals, offering travellers a guided experience through what, for many, is unfamiliar territory.



In one terminal, the airport ran a study to understand where travellers hesitated or got lost. The research revealed specific visual pain points, such as sign placement and information overload.

Based on this data, Heathrow made targeted changes as to how and where guidance now appears, and the combination of live navigation and design refinement has made a measurable difference.

Passengers now report greater ease in finding gates and favourite amenities. The airport has gained new insight into how people use its spaces, and valuable data now helps informs retail layout and service placement.

Another example of technology being used to solve communication issues is found at international gateways where passengers speak a different language to the one used at the airport.

Indeed, language barriers can be a significant point of confusion for travellers, especially when they arrive in large groups and need directions quickly. This problem has been significantly reduced with the installation of dynamic signage systems that can adapt based on flight origin data.

To help these passengers navigate the airport with confidence, airports can install digital wayfinding displays that automatically adjust to convey directions in the languages of incoming passengers.

A traveller arriving from Frankfurt, for example, might see directions displayed in German, while those from São Paulo see the same signs in Portuguese with the next flight's arrival.

Because the system can update in real time, it doesn't require manual intervention from busy staff. The result is smoother flow throughout these complex spaces and greater passenger comfort, especially for those making tight connections.

Airport employees can focus on helping those most in need when they aren't spending time repeating routine instructions.

Whether the problem is signage that's too generic, a terminal under construction, or travellers new to an airport's layout, the cost of confusion adds up. Missed retail sales, delays at security checkpoints, and added pressure on airport personnel cost airports, travellers, and vendors time and money.

New indoor wayfinding tools are helping airports adapt in real time. When gate changes happen, passengers receive alerts with updated directions. When congestion builds near certain areas, passengers can be rerouted.

Information is no longer static or dependent on staff alone, but moves with the passenger, providing them with practical support every step of the way.

In the background, airports collect data on which amenities get the most traffic, which corridors are causing stalls in foot traffic, and how long people linger in different areas. That feedback loop becomes a tool for both improving the day-to-day experience and long-term business decisions.

The need for adaptable infrastructure and passenger-centric technologies will only grow in the future as passenger volumes increase their upward trajectory.

Many airports are, of course, aware of this and already committed to improving the customer experience in their facilities by investing in passenger-centric technologies now.

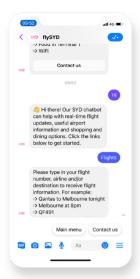
This sets the course for long-term resiliency while helping them be more equipped to manage growth and keep passengers happy. The path to a better passenger experience starts with something as simple as helping people find their way.

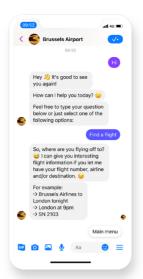
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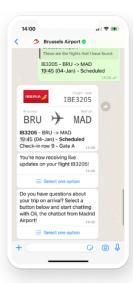
About the author

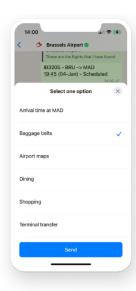
Andrew Dallmann is director of product management for the spatial intelligence group, Acuity Brands. He is responsible for the development of products that support indoor positioning, mapping, wayfinding, asset tracking, and spatial analytics.

SPECIAL REPORT: PASSENGER FACILITATION









Happy talk!

From disruption management to ancillary revenue generation, AI communications are critical to the airport passenger experience, writes Pierre Cuquemelle.

hen communication fails during disruptions, the impact ripples through every corner of airport operations.

Customer service teams face angry passengers armed with conflicting information from multiple sources. Ground staff waste valuable time correcting misinformation rather than solving problems. And security checkpoints can become bottlenecks.

Every hour of disruption extends operational recovery times and potentially inflicts damage to an airport's reputation and traveller loyalty.

Travel anxiety peaks during disruptions, and unclear communication amplifies stress. Passengers who feel informed and supported, even during delays, report higher satisfaction scores than those kept in the dark during minor schedule changes.

This emotional impact reinforces the need for proactive, effective two-way communication.

BUILDING PROACTIVE COMMUNICATION SYSTEMS

In my opinion, the shift from reactive to proactive communication requires more than new technology – it demands a fundamental rethinking of how airports view their role in the passenger journey.

Indeed, rather than simply responding to problems as they arise, an ever increasing number of airports have recognised the need to building systems that anticipate passenger needs and deliver information before it's requested.

This approach starts with data integration. Modern airports generate enormous volumes of real-time data; the challenge isn't collecting it, but connecting it, synthesising information from all stakeholders into coherent, actionable messages for specific passenger segments.

This includes collaborating between other airports and airlines, even competitors, to create more continuous passenger journeys.

Conversational AI platforms are emerging as a solution to this challenge. The recent combination of 15 below and Airport AI, for instance, aims to create unified communication systems that can process multiple data streams and deliver contextual responses through natural language interfaces.

Airports and airlines can even customise the tone and language of the chat experience to align with their brand values. Sydney Airport in Australia and Brussels Airport in Belgium are examples of airports that do just this.

These systems do more than just answer queries; they anticipate needs based on passenger context and journey stage.

A family travelling with young children needs different information than a business traveller racing to make a connection. The family, for example, might benefit from updates about quiet zones and kidfriendly dining options during their extended wait.

While the business traveller needs precise timing on security queues, lounge availability, and rebooking options. Proactive systems recognise these distinctions and tailor their communications accordingly.

Timing proves equally critical. The most sophisticated communication platforms understand the optimal moment for delivery. A gate change notification sent too early might be forgotten; too late, and passengers miss their flights.

Machine learning algorithms help airports identify these patterns and automate message timing for maximum effectiveness.

This automation extends beyond simple notifications. Conversational Al creates a self-service model for passenger support that reduces operational costs while improving response times.

Rather than joining queues at information desks, passengers can receive instant, accurate answers through digital interfaces that feel intuitive and human, freeing customer service staff to handle more complex service needs.

INTEGRATION THE FOUNDATION OF EFFECTIVE MESSAGING

The greatest barrier to effective disruption communication isn't technology, it is organisational silos. Airlines, airports, ground handlers, and retail concessions often operate separate communication systems with limited integration.

This fragmentation becomes painfully apparent during disruptions when passengers need unified and authoritative information.

Breaking down these silos requires Al-powered platforms that can aggregate data from multiple sources and distribute it through various channels. These systems must be robust enough to handle surge traffic during disruptions, yet flexible enough to accommodate the diverse requirements of different stakeholders.

Arguably, addressing this integration challenge by bridging the traditional divide between airline and airport channels rather than maintaining misaligned messaging systems is the solution.

This approach requires airlines and airports to establish common communication protocols, service standards, and above all, data sharing.

Successful integration also extends to consumer-facing channels. Passengers today expect consistency whether they're checking airport websites, mobile apps, social media, digital displays or speaking with staff.

In fact, many passengers prefer to communicate through channels they use for trip planning with family and friends, like WhatsApp or Facebook Messenger.

This omnichannel approach requires sophisticated content management systems that ensure updates propagate instantly across all platforms.

REVENUE OPPORTUNITIES IN CRISIS COMMUNICATION

While communication is sometimes viewed as a cost centre, forward-thinking airports are discovering its revenue potential.

When passengers feel informed and supported during delays, they are more likely to engage with airport services rather than simply endure the wait.

While targeted messaging during disruptions can drive specific commercial behaviours.

For instance, a passenger notified of a two-hour delay might receive suggestions for nearby restaurants with available seating, special offers at retail outlets, or day-pass options for premium lounges.

These aren't random promotions, but carefully curated recommendations based on the passenger's profile, location, and available time.

The data generated through disruption communication also has intelligence and business value. Understanding how passengers respond to different message types, channels, and timing helps airports optimise both their communication strategies and their commercial offerings.

Which passengers are most likely to purchase lounge access during delays? What message formats drive the highest engagement? These insights inform everything from retail placement to service design.

THE FUTURE OF PASSENGER EXPECTATIONS

The aviation industry stands at an inflexion point. Passengers that have grown accustomed to real-time updates from ride-sharing apps and food delivery services now expect similar transparency and immediacy from airports. This isn't a temporary trend but a permanent shift in baseline expectations.

Within the next five years, accurate information during disruptions will be the baseline passenger expectation – they'll also demand predictive insights.

Passengers will want to know not just that their flight is delayed, but the probability of further delays, expected recovery times, and personalised recommendations for alternative travel options. They'll expect this information to be contextual, considering their onward connections, hotel bookings, and ground transportation arrangements.

Meeting these expectations requires airports to stop viewing communication as an operational support function and start treating it as core infrastructure – as essential as runways, terminals, and baggage systems.

This means sustained investment in communication platforms, data analytics capabilities, and staff training. It means establishing clear governance structures for crisis communication and regular testing of response protocols.

The airports that make this transition successfully will not only weather disruptions better, but they'll turn them into opportunities to demonstrate service excellence.

In an industry where disruptions are inevitable, the ability to communicate effectively during these challenging moments becomes a competitive advantage.

About the author

Pierre Cuquemelle is the CEO and co-founder of Airport AI, a conversational AI platform built for airports. To learn more, visit 15below.com.

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High values

Embracing sunflower lanyards for passengers with hidden disabilities and a new look Arrivals area provide examples of how high Quito International Airport values good customer service.

Quito's Mariscal Sucre International Airport has become one of the latest gateways to embrace the Hidden Disabilities Sunflower.

The initiative is aimed at improving accessibility and travel experience for people with non-visible disabilities such as autism, anxiety, epilepsy, fibromyalgia, diabetes, among others.

Airport operator, Quiport, notes that the programme is important in dynamic environments like airports, where people with non-visible disabilities may have special needs that are not always obvious to those providing passenger assistance.

Ramón Miró, president and CEO of Quiport, enthuses: "One of the greatest satisfactions I take from implementing the Hidden Disabilities Sunflower programme is witnessing that the entire airport community is genuinely committed to learning how to effectively engage with individuals with hidden disabilities.

"We believe that true excellence in service is rooted in empathy. We are proud to have a team that is incentivised and trained to provide real support to those living with non-visible conditions. This programme not only transforms the way we serve but also the way we understand inclusion."

At Quito airport, individuals who may need assistance can request a sunflower lanyard, which is available at the information desk in the departures area.

The lanyard is provided free of charge and without the need to present medical documentation. Recognised across the globe, the discreet sunflower symbol signals to airport staff that the wearer may require more time, detailed explanations, or simply more empathetic treatment.

While it does not grant benefits such as priority lines nor exempts passengers from going through all processes and controls, it facilitates more conscious and adapted service to the passenger's needs.

Quiport admits that the implementation of the programme has only been possible because of the collective buy-in of the airport community, which it says recognise that enhancing customer service and improving the passenger experience is a shared responsibility of all employees.

This commitment, notes Quiport, extended to over 900 staff from 15 different companies across the airport, including representatives from the airlines, security, immigration and commercial tenants who agreed to undergo training to learn more about the programme and its benefits for passengers with hidden disabilities.





And as part of its development at Quito airport, a tour of the facilities was carried out with people with different disabilities, in collaboration with the Rett Ecuador Foundation, to identify possible opportunities for improvement in signage, infrastructure, and customer service.

"The participation of people with disabilities in all spaces is key to guaranteeing their rights. We applaud and congratulate this initiative, which marks an important step toward more conscious, empathetic, and accessible care," notes Isabel Maldonado, executive director of the Rett Foundation.

Input was also incorporated from the initiatives of the Metropolitan Public Airport Services Company (EPMSA), which had been working on care protocols for people with autism at security checkpoints.

Flavia Callafange, regional director for Latin America of Hidden Disabilities (Sunflower), says: "We are very happy that Quito Airport has joined this important initiative. This is a significant step towards a more inclusive city and country. I appreciate Quiport's continued commitment and collaboration to this project."

And the incorporation of the sunflower programme is not an isolated achievement at Quito airport as the terminal has previously been recognised with the Progressive Inclusive Seal from the Municipality of Quito and is the first in Ecuador to obtain Level 1 Accessibility Accreditation for Airports (AEA), granted by ACI World.

NEW ARRIVALS AREA

Earlier this year, Mariscal Sucre International Airport unveiled its new and improved International Arrivals area as part of a \$74.2 million upgrade.

The newly opened area is 3,500 square metres bigger than before providing much needed extra space that operator, Corporación

Quiport, says allowed it to "optimise the arrival process for international passengers".

In effect this means that the customs area, X-ray screening, and public Arrivals hall have been expanded to make the entry process more comfortable, faster, and more efficient.

In addition to the new Arrivals area, the upgrade has already added a new boarding bridge and an extra 35,000sqm of apron for parking aircraft up to the size of the B777, B787 and A330.

The airport notes that "advanced electrical systems" have been installed as part of the upgrade, including a main generator, over 3,000 metres of fibre optics, and 16 communication rooms.

A new baggage handling system and technical systems such as HVAC and fire protection networks are said to be progressing rapidly ahead of the opening of a new Departures Hall with 20 check-in desks for international airlines and a new 1,800sqm boarding lounge.

Quiport believes that the investment in new facilities reaffirms its commitment to the development of Quito Airport, ultimately "offering greater capacity, improved services and more spacious areas for passengers".

Speaking at the time, Quiport's Miró said: "This expansion is not just an investment in infrastructure – it is a commitment to the future of Ecuador's connectivity.

"We want every passenger arriving or departing from the country to enjoy a smooth, comfortable, and safe experience, and to leave with a good impression."





Change is coming

Airline digitalisation will transform the airport departure hall and how other processing facilities are used in the future, writes Stephan Hirmer, head of passenger servicing for airport operations at Amadeus.

transformative impact on airport operations.

Departure Control Systems (DCS) are gradually being replaced by more flexible <u>Delivery Management Systems (DMS)</u>. This shift is reshaping not only airport environments, both physically and operationally, but most importantly, the passenger experience

he evolution of airline systems is beginning to have a

These changes extend beyond back-end technology. They influence the design of terminal spaces, the deployment of staff, and promise to completely transform the passenger experience at the airport.

Delivery systems enable a more connected and responsive model of airport operations, based on real-time context and continuous optimisation.

For airports, this presents both a challenge and an opportunity: to support airlines in their digital and operational transformation, while simultaneously adapting their own infrastructure, processes and partnerships.

This must happen in parallel with day-to-day operations, requiring incremental co-ordinated changes that improve the passenger experience and enable more commercially agile, future-ready airport spaces in the process.

RETHINKING TERMINAL DESIGN

One of the most visible impacts of airlines adopting Delivery Management Systems will be how airport space is used.

The shift away from legacy processes means that terminals can be reconfigured with different priorities in mind.

Fixed check-in desks, once central to terminal design, are becoming increasingly redundant. Several leading airlines are retiring them in favour of more flexible models.

This involves agents using tablets to serve passengers on the move, with real-time access to each traveller's 'order' – a unified record of all the products and services the airline has committed to deliver, from seat selection to baggage allowance and onboard meals.

Alternatively, some airlines have opted for expanded self-service zones or a combination of both. This flexibility enables the passenger experience to be designed around convenience and efficiency, rather than processing.

As more documentation is handled digitally and identity verification shifts towards rapid biometric scans, the size of the traditional airport 'processing' areas can be reduced.

This creates space for alternative uses, such as quiet zones, retail areas, workspaces and lounges, which support a more relaxed and productive experience for travellers, as well as offering greater commercial opportunities for operators.

The bag drop process is also evolving. With the introduction of door-to-door baggage services, some passengers may be able to bypass the check-in hall entirely, entering the airport flow at security.

as a whole.

By removing or automating traditional passenger processes like check-in, delivery management enables airports to reconsider how space is used, as part of a customer-centric commercial strategy that unlocks new opportunities to drive non-aeronautical revenue.

STREAMLINING THE PASSENGER EXPERIENCE

As operational decisions become more data-driven and predictive, the need for passengers to wait unnecessarily at gates or in queues for unclear updates will decrease.

Traditionally, passengers have spent much of their time at the airport in a reactive state, checking screens, listening for announcements and moving through staged processes. However, with delivery systems, airlines and airports can take a more proactive approach. A single operational view showing the live status of all flights, delays, regulatory checks and transfer requirements allows agents and station managers to co-ordinate more precisely and make faster, more informed decisions.

These capabilities open up new opportunities. For instance, if a connecting flight is delayed, the system can suggest allocating the arriving aircraft to a gate that minimises transfer time.

Similarly, if boarding is likely to be delayed, this information can be used to notify passengers early, allowing them to spend time elsewhere in the terminal rather than queuing unnecessarily.

By combining passenger information with live flight data, airports can align their services more closely with individual needs.

INCREASING NON-AERONAUTICAL REVENUE

Delivery Management Systems create new opportunities for airports to increase their non-aeronautical revenue by facilitating more time and space-efficient, context-aware retail interactions.

Passengers are more likely to engage with food and beverage outlets, retail stores, and experiential services when they spend less time queuing and more time freely navigating the terminal.

Airports can benefit directly by collaborating with airlines to deliver timely, personalised offers, such as fast-track security, premium dining, and third-party services like spa access and co-working lounges.

SEAMLESS COLLABORATION

Delivery systems combined with collaborative platform technology will make it possible for airlines and airports to choose to share information more easily.

It is increasingly clear that such sharing of information can unlock benefits for both parties and ultimately, travellers. For the next phase of transformation, greater operational and data collaboration will be essential.

For the most part, airports don't interact with passengers directly. Their ability to improve the traveller experience and operational efficiency relies on their visibility of airline systems, particularly with regard to order, delivery and fulfilment data.

SPECIAL REPORT: PASSENGER FACILITATION



Delivery management systems provide a natural opportunity to achieve this alignment. When a passenger's journey status is updated in real time, that information triggers follow-on actions. These could include reassigning stand gates, offering lounge access or updating digital signage and staffing levels.

Airports benefit directly from this. For instance, when document checks or visa validations are handled in advance via digital processes initiated at the time of booking, bottlenecks at the terminal are reduced.

This requires integrated systems and a willingness among stakeholders to share data in a way that supports mutually beneficial outcomes, such as aligning resource planning with passenger flow forecasts or triggering tailored services at the right time.

Achieving this depends on using common standards, open platform technology, and clearly defined data governance models that enable secure, real-time exchange without compromising operational control.

Emerging platform technologies and open APIs are facilitating the establishment of common ground.

Real-time data exchange is now becoming a possibility. When both parties choose to share information, airlines gain better situational awareness and responsiveness, while airports gain earlier insight into passenger volumes, flow patterns and service requirements.

Looking ahead, the airports best positioned for success will be those that proactively engage with this shift by supporting open, intelligent systems that can integrate with airline infrastructure while advancing their own operational goals.

This will not only improve passenger experience but also create smarter, leaner airport environments where technology and data inform every decision.





Transfer tales

OAG's chief analyst, John Grant, explains why the battle for connecting passengers is likely to heat up in the Middle East.

elieve the many stories written about airports, and the world is dominated by the super connectors in the Middle East. Indeed, the major airports and airlines are outstanding examples of how an airport can transform an economy and raise the profile of any country.

And yet, in the recently released OAG Megahubs report, which ranks the world's most connected airports, there is plenty of room for the major Middle East hubs to climb the ranks, with Dubai 'leading' in fifteenth spot, Riyadh twenty-sixth and Doha in thirty-fourth place.

Ten years of Megahubs results highlight how difficult it is to break into the top ten, but also the challenge of keeping the same spot every year.

No one doubts the quality offered by the three Middle East hubs of Dubai, Riyadh and Doha, but will they be able to achieve top Megahub status?

And what does the future hold for the broader Middle East market with the two new super hubs developing in Saudi Arabia, and Dubai World Central taking shape in the middle of the next decade?

While demand continues to grow, a key question surrounds how each airport will evolve in the next decade and how they will be impacted in a part of the world where aviation and politics frequently go hand in hand.

One thing is clear: change is coming. But where, when and how are worth looking at in more detail.

THE IMPACT OF SAUDI ARABIA'S VISION 2030

While the Vision 2030 project may have been a tad ambitious in terms of passenger numbers, traffic will probably double over the decade as the established Saudia network expands and the new Riyadh Air launches services.

Recent aircraft orders for both airlines reflect the commitment to growth in the Kingdom, which has the distinct advantage of a large domestic market; a feature that no other major Middle East market can offer.

While Saudia continues to slowly build its network, supply chain issues mean the pace of development at Riyadh Air has been much slower than originally planned.

London Heathrow should start this winter alongside other more regional services, but the airline is some way behind in its plans. The ultimate network will pivot around their new airport facility and for every London or Paris there will be a Bangkok or Manila.

For Riyadh Air the crucial development of connecting traffic will involve direct competition with established regional carriers which have high service levels and frequency across the globe.

It is, of course, impossible for Riyadh Air to replicate the networks of Emirates and Qatar Airways overnight, so selective market development will be crucial in the early years of operation.

A review of current capacity from Riyadh to the ten largest non-regional markets from the Middle East (see table on left column of page 27) highlights the scale of challenge to be faced in the coming years.

Aside from Cairo, historically a very large local market, Riyadh's respective share of capacity is very small compared to Dubai, the market leader in the region.

Intriguingly for the Saudi authorities, balancing the development of international services to destinations such as Dubai and Cairo from regional markets needs to be offset by allowing those overseas



Arriving Airport	Scheduled Capacity From The Middle East 2025	2025 Capacity From Riyadh	% Capacity Share From Riyadh	2025 Capacity From Dubai	% Capacity Share From Dubai
Cairo International	11,297,544	1,630,030	14.4%	952,765	8.4%
Istanbul Airport	6,487,027	457,457	7.1%	1,020,004	15.7%
London Heathrow Apt	5,386,961	579,532	10.8%	1,517,187	28.2%
Mumbai	4,743,569	228,411	4.8%	1,405,424	29.6%
Delhi	3,506,436	216,959	6.2%	1,206,972	34.4%
Bangkok Suvarnabhumi International	3,169,860	58,570	1.8%	952,699	30.1%
Istanbul Sabiha Gokcen Apt	3,129,107		0.0%	277,564	8.9%
Dhaka	3,060,409	377,760	12.3%	623,348	20.4%
Paris Charles de Gaulle Apt	2,772,981	158,845	5.7%	740,878	26.7%
Islamabad	2,650,126	421,306	15.9%	519,825	19.6%
Source: OAG					

Table 1 – Relative Scheduled Airline Capacity At Riyadh Against Other Middle East Markets.

airlines access to valuable connecting traffic that would otherwise route through either Jeddah, or increasingly Riyadh.

Regional Saudi airports are longing for direct international connectivity, but that increases the competition across the two planned local hubs. Against such a backdrop it will be interesting to see how the desire for open skies plays versus protecting local airline interest.

With over 330 aircraft on order across the major airlines in Saudi Arabia there will be a flood of capacity that will increase competition and place pressure on air fares for all airlines, which might make for some painful results for more niche operators. And that's before we add the India factor into the mix.

THE INDIA FACTOR

India has been a source of valuable connecting traffic through the Middle East, but as far as the Indian airlines are concerned, enough is enough and they want a slice of that market.

The table above (right) shows the recent scale of connecting traffic through some Middle East hubs. With India's vibrant low-cost airline,

Connecting Traffic From India (Two-			
Way)	2022	2023	2024
Via Dubai	3,356,977	3,552,170	3,546,828
Via Doha	1,797,482	2,119,927	2,340,924
Via Abu Dhabi	1,316,513	1,987,251	2,507,500
Via Bahrain	539,389	842,621	852,275

Table 2 - Estimated Passenger Bookings From India Via Major Middle East Hubs

Indigo, launching non-stop Europe services, competition will be increasing around the existing major hubs.

Interestingly, Emirates' traffic volumes have been consistent over the last three years which may in part be a revenue management play linked to the amount of capacity the airline can operate to India.

In recent years the airline has sought more capacity, and regular approaches have been rejected by Indian authorities as they seek to rebalance how traffic flows through the Mumbai and Delhi hubs.

At the same time, growth of some 30% connecting traffic over Doha reflects from a 14% increase in capacity to India, and highlights Qatar Airways' interest in developing more business from the market.

With new airports in Delhi and Mumbai, local airlines are already reshaping domestic networks to use existing slots for more international capacity.

In both cases taking sixth freedom, connecting traffic from the Middle East to Southeast Asia is a major part of development strategy and that means a more competitive market, especially for lower yielding worker segments.

Depending on your position, the Middle East will in the next decade either offer some of the greatest opportunities for new business and development or become one of the most fiercely competitive markets on the planet.





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The best of both worlds

Artwork and advertising can work side by side on the limited wall space in airport terminals, writes Leslie Bensen, CEO of Departure Media.

n an already competitive market with limited wall space, many airport operators feel under pressure to choose between using it for revenue generating advertising or artwork, which can enhance passenger experience and create a unique sense of place.

But there doesn't have to be a choice as the two can coexist and ensure that airports maximise the experience for passengers and advertisers alike as both airport art and advertising share the similar goals of enhancing the passenger experience as they journey through the airport.

Art can transform a potentially stressful travel environment into a more enjoyable and relaxing space by providing visual stimulation, offering a welcome distraction from delays, and even a sense of place or connection to the local culture.

In addition, strategically placed art can guide passengers through the airport and create memorable landmarks, making it easier to navigate the complex terminal layout.

Airport advertising also functions in a similar way to provide passengers with a taste of the place they are passing through and aims to differentiate one airport space from another.

Artwork can be used as a backdrop for social media posts, attracting attention and generating positive buzz about the airport and the local

area, and impressive public art can also garner media attention, according to Artwork Archive.

Generating buzz and interest is also what advertisers aim to do in an airport, and a combination of art with advertising can translate this enthusiasm into real results for advertising brands on both a local and larger scale.

Thinking local and supporting cultural and regional identity are values shared by the most effective airport art and advertising alike.

Airports can provide a valuable platform for local artists to showcase their work, contributing to the local economy and cultural scene while offering passengers a memorable taste of the local artistic offerings of their destination.

And just as airport art can reflect the local and regional culture – welcoming visitors and offering a glimpse of the area's identity – so can local advertising showcasing local brands and stories from companies local to the airport.

Indeed, art and advertising can be seamlessly integrated to create cohesive and engaging environments. For example, artwork can be used to frame or complement advertising displays, or advertising can be incorporated into the design of public art installations. The two do indeed each have a role to play.





The future is now

Ambitious plans for new terminals, imminent openings and longer term airport projects ensure that it has been a busy end to the year for infrastructure development, writes Joe Bates.

ith traffic growth now firmly back on the agenda, the race is well and truly on to ensure that the world's airports are equipped with the infrastructure they will need to handle increased demand, and raised passenger expectations, over the coming decades.

In most cases this means new or upgraded terminals, runways and cargo facilities as well as embracing technology that will improve operational efficiency, simplify passenger journeys and enhance the airport experience.

But it also includes new airports, such as the under construction Western Sydney International Airport (WSI) in Australia, CPK megahub in Poland, and the soon-to-open Noida International (DXN) and Navi Mumbai (NMI) in India, as well as other infrastructure such as new ATC towers, parking garages, Consolidated Rent-a-Car (CONRAC) facilities, Ground Transportation Centre's and access roads.

It is not always the case, but when passenger numbers are on a steep upward trajectory, the timing of building and opening new infrastructure can make the difference between an airport struggling to cope with demand or flourishing, with new facility's often proving the catalyst for growth.

Below are some examples of new facilities that are either planned, being built, newly opened, about to open or are possibly a pipe dream. They include the proposed new airport on the outskirts of Bucharest, Romania, and Cambodia's new state-of-the-art Techno International Airport.

ON THE DRAWING BOARD

Despite plans to build a new terminal at Bucharest's existing Henri Coanda International Airport (OTP), investors have unveiled plans to construct a second gateway for the Romanian capital in Adunatii-Copaceni in Giurgiu County, approximately 40 kilometres from the Bulgarian border.

Provisionally called **Binghatti Aerocity**, the proposed new international airport (pictured above) in the southern metropolitan area of Bucharest is moving forward with strong governmental backing and international collaboration, including design input from leading UK firm Scott Brownrigg.

This ambitious project, initially aimed at alleviating capacity constraints at OTP before potentially replacing it, promises to transform Romania and Eastern Europe's connectivity and economic growth by developing an airport ultimately capable of handling up to 40 million passengers and 500,000 tonnes of cargo per annum.



Being developed by a joint venture between Jetstream and the Property Sud Invest, the plan is to construct the airport in three phases over the coming decades, opening with an initial capacity of 12-15mppa and 100,000 tonnes of cargo in 2028.

To date, over 2,000 hectares of land have been secured for the airport, plus an additional 35 hectares for an associated port facility, with no major objections from key landowners.

It is reported that the project enjoys widespread support from the relevant local authorities, including the host municipality, Giurgiu County Council, Bucharest General Municipality, and Sector 4 Municipality.

Investment in the project has already surpassed €150 million, with a total projected commitment of €2.5 billion required to bring the full vision to life.

Site work is expected to commence once initial funding milestones are met. Its developers claim that major airlines operating in Romania have shown keen interest, including market leader Wizz Air (over 50% share), Ryanair, and Turkish Airlines.

Additionally, international carriers such as Indigo, Scoot, and other Asian airlines have expressed enthusiasm for launching new routes from the facility.

Project director, Dorin Catana, says: "Binghatti Aerocity will be positioned as the principal airport of Bucharest and of Romania, serving as the country's new international gateway.

"We estimate that the construction permit will be obtained by mid-2026, with construction expected to take approximately two years. Accordingly,

the targeted opening is around 2028, with subsequent expansion phases aligned with the projected future growth in passenger and cargo traffic."

To ensure seamless accessibility, the JV behind the gateway note that critical transport infrastructure is being prioritised.

For example, the recently completed southern Bucharest Ring Road will be connected directly to the new airport, and there are bold plans for a monorail project, spearheaded by the Mayor of Sector 4, to link the site to central Bucharest.

Furthermore, the nearby main railway line is undergoing modernisation, complemented by a refurbished adjacent station.

The project's international stature is bolstered by key partners Wall Street Capital Partners and Surbana Jurong. Prominent figures from Wall Street Capital Partners, including Douglas Anderson and Stephan Moore, have been instrumental in advocating for the development through media engagements, emphasising its financial robustness and global appeal.

"This is more than an airport; it's a gateway to Romania's future prosperity," says Anderson. "With the expertise of UK-based Scott Brownrigg in our masterplan, we're ensuring world-class design that will position Bucharest as a premier European hub."

OPEN FOR BUSINESS

Arguably the biggest of all the new openings in the second half of 2025 was **Techno International Airport**, which replaced Phnom Penh International Airport as Cambodia's main international gateway in early September.



Designed by Foster + Partners, the new terminal building is said to embody Cambodia's long-term vision for growth.

According to Foster + Partners, it also evokes a strong sense of place, drawing inspiration from one of the oldest civilisations on earth, inspired by its vernacular forms, and responsive to the tropical climate.

Its head of studio, Stefan Behling, said: "Techo International Airport is a celebration of Cambodian culture and light – forming a new gateway to the country.

"It is also one of the most sustainable airports in the region, filled with natural daylight and incredible local greenery, and offering strong visual connections to the outside.

"The terminal holistically transforms the experience of travel for the people of Cambodia and the millions of visitors who will travel through here every year."

While Nikolai Malsch, senior partner, Foster + Partners, said: "The modular lightweight shell structure and layered soffit filters daylight into the building – allowing people to experience the evolving qualities of the external environment throughout the day.

"Our design blends technological innovation with references to Cambodia's built heritage. Interior materials are warm and welcoming to ensure the highest level of passenger comfort, while reinforcing the country's unique identity."

Located 20 kilometres south of the city centre, the terminal building comprises a central head house and two aerofoil shaped piers. The first phase of the project – the head house and northern pier – opened to the public in September.

The southern pier is planned to open by 2030. The terminal layout prioritises short walking distances, clear sightlines and simple orientation, allowing passengers to navigate through the building with ease.

Passenger processing, security and immigration, and retail are sheltered by a single overarching roof canopy that stretches from the drop-off to airside.

The modular roof is supported by structural 'trees' that each span 36 metres. According to Foster + Partners, the roof has an undulating form that crescendos at the centre of the building, echoing Cambodia's spectacular palaces and temples.

It adds that throughout the terminal building, soffits are inspired by traditional basket weaving. Suspended under the building's lightweight steel grid shell structure, a latticed soffit filters daylight into the vast terminal space throughout the day.

Around 180 skylights are strategically placed around structural 'trees,' to bring natural light deep into the space while ensuring it is distributed evenly.

Greenery follows the passenger journey through the terminal, with native Romduol trees rising within the soaring central void, alongside local palms and flowers, which contribute to a strong sense of place.

Materials are said to be warm and welcoming, evoking the local vernacular in a contemporary manner.

A collection of 200 hand-crafted sculptures, as well as a centrepiece bronze-cast Buddha, have been carefully curated to celebrate the country's history and evolving identity.

The project aspires to be one of the greenest airports in the world by seamlessly integrating architectural design and engineering to reduce the project's carbon footprint significantly.

Elsewhere in the world, in the US, more than 300 guests gathered at **Pittsburgh International Airport (PIT)** on October 11 for a Ribbon Cutting Ceremony for its highly anticipated new state-of-the-art terminal, which opens to the public this autumn.



The ceremony symbolised the culmination of a collective effort to create a new PIT terminal that reflects Pittsburgh's identity and embodies its future.

The project, which broke ground in 2021, was backed through unanimous support of PIT's airline partners, which are covering the majority of the \$1.7 billion cost. No local tax dollars were used to fund the project.

It is the centrepiece of PIT's transition from a hub connecting passengers from around the country to an origin-and-destination (O&D) airport tailored to better serve the Pittsburgh market.

Rather than being a hub with one dominant carrier, PIT has leveraged its airline relationships to diversify its air service portfolio by adding a plethora of legacy, low-cost and ultra-low-cost carriers to align with its O&D strategy.

Inside and out, the terminal includes features that are visually striking and functionally innovative.

The terminal is designed to capture the essence of the Pittsburgh region. The rolling roofline mimics the region's hills, and its structural tree columns and terrazzo flooring's intricate leaf patterns, created by artist Clayton Merrell, reflect the region's forests.

Perhaps most striking is the terminal's constellation lighting – featuring more than 4,000 lights – that emulates the night sky, creating a spectacular effect that is visible inside and outside of the building.

Unique among US airports, the terminal includes four outdoor terraces—two pre-security and two post-security—giving travellers a chance to enjoy fresh air during their journey.

"The building design was always aspirational. It was meant and designed to work for everyone, for actual people who travel through and work in an airport," enthused PIT CEO, Christina Cassotis.

"But the building itself, if you look at it now, I think is actually inspirational. Being in this space feels good, and that's a pretty big statement for an airport today."

In South America, Santiago's **Arturo Merino Benitez International Airport** in Chila, a member of the VINCI Airports network for 10 years, has inaugurated the final phase of the on-time delivery of the Domestic Terminal (T1) expansion and renovation project.

The \$60 million investment significantly increases the airport's capacity, which can now accommodate up to 20 million passengers per year, in response to the 56% increase in domestic traffic since 2015, when VINCI Airports took over management of Santiago Airport.

This is the final stage of the concession contract signed by VINCI Airports with the Chilean government in 2015, aimed at positioning the country as a major hub in Latin America.

"This inauguration celebrates 10 years of successful partnership between VINCI Airports and Chile, supporting the growth of Santiago Airport as well as the country's economic and tourism development. Since 2015, passenger traffic has grown from 17 million to over 26 million by 2024, and demand continues to grow," notes VINCI Airports.

They new additions also include the new International Terminal at **Newcastle Airport** in Australia, which was officially opened in late September. The completed terminal is expected to deliver A\$12.7 billion in economic benefit over the next 20 years and more than 4,000 jobs

UNDER CONSTRUCTION

In the US, Hartsfield-Jackson Atlanta International Airport (ATL) has completed phase two of a \$1.4 billion modernisation project that will increase the size of Concourse D by more than 60%.

Incorporating modular construction, the project will result in an 18% increase in available airline seats — critical for the world's busiest airport, which transported more than 108 million passengers in 2024.





Passengers are now able to experience the new design, as the first five gates have officially opened to travellers.

Built in the 1970s for small regional aircraft, Concourse D is the airport's narrowest concourse. It is being modernised to accommodate larger airplanes and regional jets for the Delta hub.

To keep the airport fully operational – maintaining revenue and minimising disruptions – the project is using an innovative method of modular construction. Giant modular sections are prefabricated offsite and transported by high-tech equipment to comprise the concourse core and shell. Functioning as building blocks, the steel modules are inserted into frames.

Elsewhere in the country, the Port Authority of New York and New Jersey (PANYNJ) has broken ground on a new AirTrain Newark system at **Newark Liberty International Airport**, launching construction of a modern, reliable 2.5-mile automated people mover.

The new \$3.5 billion system will replace the existing AirTrain, which opened in 1996 and has become outdated, over capacity, and unable to accommodate Newark Liberty's rapid growth.

The new AirTrain system will allow for expanded passenger capacity, greater reliability and flexible connectivity in conjunction with the airport's redevelopment plan. It is expected to begin operation in 2030.

"Breaking ground on a new AirTrain system marks another milestone in the complete transformation of Newark Liberty International Airport into a world-class gateway," said PANYNJ chairman, Kevin O'Toole. "This project is about more than just replacing outdated infrastructure. It's about building the capacity, reliability, and customer experience that millions of travellers will depend on for decades to come as we complete a top-to-bottom reimagining of Newark Liberty."

In Nevada, a ground breaking ceremony has been held for the new Ground Transportation Center and Consolidated Rental Car Facility at Reno-Tahoe International Airport (RNO).

The 440,000-square-foot facility will serve as a cornerstone of the airport's \$1 billion MoreRNO Infrastructure Program, transforming passenger access to ground transportation and enhancing the customer experience when it opens in 2028.

"This project embodies our vision for RNO – to be a driver of progress for our region through smart, forward-looking investments," said Daren Griffin, president and CEO of the Reno-Tahoe Airport Authority.

The \$299 million privately financed project will bring all rental car operations and ground transportation providers into a single, on-airport location with direct pedestrian access from baggage claim via a covered walkway.

Levels two through four of the facility will house 24 fuelling stations, six car washes, and 300 staging and storage spaces servicing up to 10 rental car brands.

And in North Carolina, the ongoing Park Economy 3 (PE3) Expansion Project at **Raleigh-Durham International Airport (RDU)** has set a new benchmark for sustainable infrastructure by earning the prestigious Envision Platinum Award.

This recognition from the Institute for Sustainable Infrastructure (ISI) highlights a shared commitment to environmental stewardship and resilient design, representing the highest level of achievement within the Envision framework.

The project, which expands public parking from 3,820 to nearly 11,000 spaces, demonstrates how large-scale infrastructure can integrate seamlessly with ambitious environmental objectives. The expansion is a cornerstone of the airport's long-term vision for sustainable growth.

"The PE₃ project is a powerful testament to our dedication to environmental goals and responsible development," says Delia Chi, CM, vice president of planning and sustainability at the Raleigh-Durham Airport Authority.

NEW INFRASTRUCTURE





"This award validates our strategy of embedding sustainability into every facet of our operations. It's not just about adding parking; it's about creating infrastructure that serves our community and protects our natural resources for generations to come."

A key element of the project's success is North Carolina's first submerged gravel wetland system for stormwater management at an airport. This innovative system naturally filters runoff, significantly improving water quality before it enters local waterways.

RS&H, the employee-owned engineering, architecture and consulting firm behind the design, navigated complex challenges to bring this vision to life.

On the other side of the globe, a major expansion and upgrade of Terminal 2 has commenced at **Perth Airport** in Australia as part of its multi-billion-dollar investment programme.

The works include new self-service check-in facilities, an expansion of the current passenger screening facilities and departure lounge, and an extension to the baggage make-up hall.

Perth Airport CEO, Jason Waters, noted: "We've seen significant growth of regional passenger numbers with with an increase of 3.7% on last year seeing numbers grow from 6 million to 6.24 million.

"This growth is positive for the Western Australian economy and the resource and regional tourism sector and showcases the importance of Perth as an aviation hub.

"This expansion is more than just additional space — it's about enhancing the customer experience and delivering our airline partners the capacity and efficiencies they need to grow their businesses.

MASTER PLANNING

Sydney Airport has released its preliminary draft Master Plan 2045, setting out a vision for growth that forecasts 72 million passengers a year, A\$70 billion in annual economic contribution and more than 105,000 direct jobs by 2045.

By 2045, Sydney Airport is expected to welcome more than 72 million passengers every year, an increase of 75% from today.

International passenger numbers are forecast to grow to 36.4 million annually, with domestic and regional passenger set to increase to 36.2 million by 2045.

International passengers as a proportion of Sydney Airport's total passenger volumes are expected to shift from just under 40% to 50.4% by 2045.

The plan anticipates airfreight volumes will grow to 1.4 million tonnes annually, more than double current levels.

At the heart of the plan is a proposed expansion linking the T2 and T3 domestic terminals, creating a new precinct where regional, domestic and international services are brought under one roof.

The project will deliver up to 12 new international gates, alongside two additional gates at the T1 International Terminal, providing more capacity, smoother connections for passengers and greater efficiency for airlines. Capacity for domestic and regional airlines will also be expanded.

The Master Plan also includes Sydney Airport's new five-year Airport Environment Strategy, embedding environmental goals into long-term planning. The strategy commits to taking steps to reduce emissions, build climate resilience and operate more sustainably.

Scott Charlton, Sydney Airport CEO, said: "We're pleased to release our preliminary draft Master Plan 2045 and look forward to receiving feedback from our local community, airlines and precinct partners, government at all levels – everyone who has a stake in Sydney Airport's sustainable growth and development.

"When Sydney Airport grows, so does business, trade, tourism and jobs. This plan is about building the future of Australia's gateway and ensuring we are ready to play our part in NSW's ambitious visitor economy strategy."





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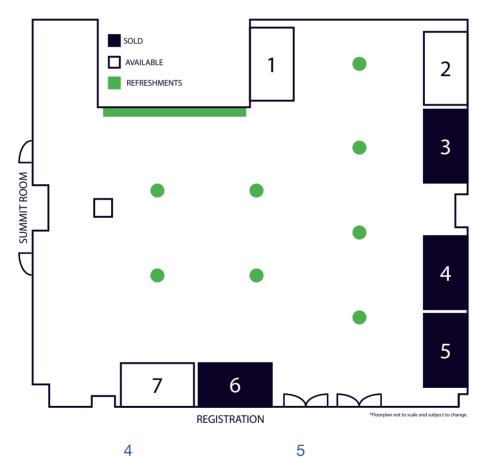


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Tech pioneer

We take a look at the opening of an innovation hub at Singapore Changi and the airport's use of robotic technology to carry out maintenance inspections in hard to get to areas for humans.

hangi Airport Group (CAG) has unveiled Terminal X – a vibrant innovation hub designed to bring together its partner innovators under one roof.

According to CAG, this dynamic space aims to "foster collaboration, spark creativity, and empower our teams to launch groundbreaking ideas that shape the future of travel".

Terminal X features unique spaces like a makers' lab, UI/UX testing facilities, and immersive storytelling chambers – all crafted to support and showcase Changi Airport's continuous innovation journey.

It says: "With the opening of Terminal X, CAG is renewing its commitment to accelerating airport innovation and elevating the Changi Experience for its passengers."

And as if to prove the point about innovation, CAG recently unveiled its own robotic creepy crawlies capable of squeezing through tiny gaps and overhead spaces to inspect a hidden network of wires and cables that link the entire airport together.

Officially called 'Robot Crawlers', the miniature machines – the smallest of which is about the size of a banana – can navigate areas beyond the reach of human technicians, and have been introduced to transform traditionally labour-intensive maintenance work into a workflow that is safer and more efficient.

Once inside, they perform visual inspections and hunt for structural issues such as sagging, leaks, or cracks, while transmitting high-resolution images back to the ground team. This enables faster problem-spotting and significantly reduces the time spent on manual checks.

Talking about the success of the Crawler Robot to date, CAG's senior manager of airport operations technology and corporate IT, Noordin Mohamed (NM), says: "Early trials with the Crawler Robot have reduced the need to open individual ceiling hatches by more than tenfold, thanks to its ability to travel long distances. This has saved significant man-hours, and lowered inspection costs. Plus, with fewer panels needing removal, safety is enhanced as the robot does the hard-to-reach work above.

"In addition, the robot has also been able to conduct close-up inspections from less than 10 centimetres out, allowing anomalies that might be missed by a human from a distance to be detected and addressed proactively.

"Since prototyping began in 2024, we have rolled out the Crawler Robot for trials in Terminal 2, Terminal 3, and other enclosed ceiling spaces across the airport, working closely with our facilities management team to optimise its integration into Changi's operations. The eventual goal is for it to be deployed across all four terminals, supporting team's company-wide with ceiling inspections and maintenance works.

"As the world's first user of robots capable of traversing the spaces above ceilings, we are committed to developing more innovative solutions to tackle operational challenges."

And there's more as pioneering Changi recently unveiled a global first in airport innovation with FlightSaver Assurance on the Changi App, which automatically issues passengers with a S\$10 Changi Transit e-Voucher if their flights are delayed by three hours or more.

Other features of the enhanced Changi App include live flight tracking, real-time destination airport info, and in-app travel insurance.





Are you covered?

Helen Biggin, partner at law firm Vedder Price, considers how airports can seek to safeguard their operations from litigation.

ecent events at various UK and European airports have caused disruption for passengers and have significantly impacted airlines and other companies who use those airports.

Such events include the power outage at London Heathrow, the cyber-attack on a service provider who provided check-in and boarding systems at multiple airports, malfunctioning air traffic control systems, drone incursions and physical infrastructure failures.

These events can, if not adequately foreseen, planned for and managed, give rise to substantial claims against airports.

The most obvious claims will be from passengers seeking recompense for flight delays and cancellations. Though such claims will be against airlines and travel insurance companies, it is entirely possible that those companies will in turn seek to recover their losses from the airports and the airports may face claims directly from other third parties such as shop and restaurant owners in the terminals.

This will be a particular risk if it appears the incident was caused by the negligence or mismanagement on the part of the airport.

For example, if the airport does not have adequate systems and monitoring in place, it has lax processes or procedures when hiring subcontractors, or it has turned a blind eye to issues, then the risk of claims rises exponentially.

Many of the events that occur are the result of bad actors such as cyber-attacks or drone incursions, and though these should be relatively rare occurrences, a prudent airport operator should be taking steps to protect itself against such risks.

If it fails to pro-actively plan and prepare for such eventualities, it will leave itself open to criticism and potential claims.

PROTECTIVE MEASURES

Airports should ensure they have robust operational plans in place. For example, they should schedule regular maintenance work and undertake regular checks on key systems and infrastructure to ensure they are fit for purpose and in good working order.

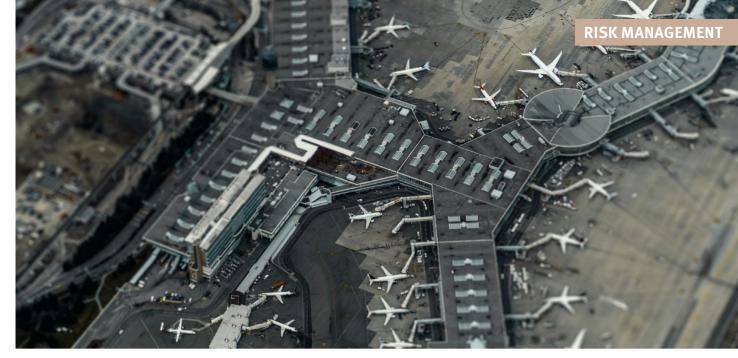
Doing so and, importantly, documenting this maintenance work and checks, will assist the airport if it has to defend itself against claims of negligence or mismanagement.

Airports should also align and work closely with sub-contractors who perform maintenance or supply goods and services to ensure the quality of the work, products and services provided.

Airport management should regularly review procurement policies. They should also undertake spot checks of key service providers to ensure that the right standards of work are being maintained and that the sub-contractors are conducting the work to the required standards and have the relevant expertise for the work they are undertaking.

Having detailed and comprehensive emergency response and business continuity plans in place is another necessary measure as these will ensure that when events happen, airports can try to mitigate their (and others) losses.

Such plans should be reviewed and updated regularly, and airports should hold practice drills implementing these plans periodically.



As part of this process, the airport should pre-identify a core crisis team spanning various competencies which can be put in place quickly if an issue arises. Ideally, such a team will include appropriate people from senior management, operations, engineering, IT, PR, risk, compliance and legal.

Who makes up this core team should also be kept under review so that, for instance, replacements can be sorted ahead of time as and when individuals leave.

The plan should ensure that responsibility and work is clearly divided upfront between the team members because when events occur the airport will be pulled in numerous directions – managing passengers, attempting to fix the issue, messaging the press and stakeholders, for instance.

Additionally, airports must regularly review and carry out risk assessments and threat modelling on their most critical systems and operations.

They should consider isolating critical systems from each other so that a cyber-attack, for instance, does not cross contaminate other systems. This review should focus on security around their critical systems, infrastructure and operations, including thinking critically about who has access to them, making software updates as needed and robustly testing the security of the systems to try to identify and fix gaps.

Adequate training for all staff is essential. With cyber-attacks in particular, the vulnerabilities often lie with the use of IT systems by staff at all levels. Therefore, airports should ensure that all staff are appropriately trained to identify potential issues (e.g. phishing attempts) and they should assess and update policies and procedures covering IT matters, especially policies around the use of personal devices and personal email addresses.

The importance of properly documenting training, risk assessments, business continuity plans and emergency response plans also cannot be understated.

It is worth noting that during any crisis, airports should properly document decisions they have made and why. In the latter instance, this should be done with the advice of lawyers to ensure privilege is maintained as necessary.

Contracts entered in to by the airport should be scrutinised carefully, and notably, the force majeure and material adverse change clauses and also any limitation of liability clause.

If these clauses are appropriately drafted, they may allow the airport the ability to avoid or significantly reduce its liability.

Airports should also review their own insurance policies and assess carefully the exemption provisions to ensure they are adequately protected and ensure they are complying strictly with all relevant legislation and regulations.

PRE-EMPTIVE STEPS

Obviously, it will not be possible for airports to pre-empt every extraordinary event that may arise, but they should consider if there are pre-emptive steps they can take to prevent or minimise the impact of events.

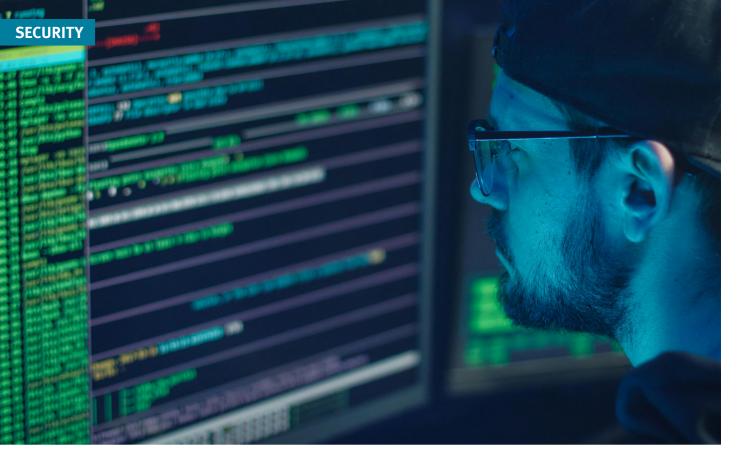
For example, following a spate of protests by climate change activists, many UK airports have obtained injunctions from the English High Court preventing demonstrators from trespassing on the airport's private property.

CONCLUSION

In order to try to minimise disruption for passengers and airlines when such events do inevitably occur, and to best protect themselves against potential claims, airports should be looking to properly and thoroughly plan and prepare for how it will address any such events and continue to assess, maintain and monitor its critical infrastructure and systems.

Being able to demonstrate that the airport had appropriately planned for emergency events can reduce its exposure to claims by showing it took all reasonable steps to avoid the event in the first place and promptly took reasonable steps to mitigate losses when crises did occur.





Protect and serve

Dr Jaushin Lee, founder and CEO of Zentera Systems, addresses how airports can protect themselves from cybercriminals.

irport security has traditionally focused on protecting airports in their roles as critical gateways for commerce, tourism, and national defence, with a corresponding emphasis on passenger, facility, and luggage screening.

For these same reasons, airports have now become high-value targets for cybercriminals seeking to disrupt global travel, hold customer data hostage, or lay the groundwork for compromising airport operations.

Recent incidents, such as those at at <u>Seattle-Tacoma International</u> <u>Airport</u> and <u>Kuala Lumpur International Airport</u>, have highlighted the real-world consequences of successful cyber breaches, including grounded flights, compromised safety protocols, millions in lost revenue, and eroded customer trust.

For IT and cybersecurity professionals in the airport industry, the security challenge is startlingly clear and increasingly complex: How can airport operators protect their highly connected, mission-critical systems against a rising tide of digital threats, especially with legacy infrastructure and tight budgets?

The answer can be found with the right combination of awareness, strategic investment, and an innovative approach to cybersecurity: Zero Trust.

A NEW TYPE OF THREAT TO AN OLD SYSTEM

One of the most significant vulnerabilities airport operators face today is their ongoing reliance on outdated but highly integrated systems.

From backend systems to facility management, many airports rely on legacy infrastructure that was not designed to withstand today's sophisticated and persistent cyber threats. Although these systems still function reliably from an operational standpoint, they often lack the basic security controls necessary to withstand a targeted cyber-attack.

During a recent simulation at the Technology Advancement Center's Adega Airport Cyber Range, which models airport networks and operations to evaluate cybersecurity defences, participants demonstrated just how exposed airports are.

The simulated scenarios, which were based on real-world attacks against aviation infrastructure, revealed how disruptions to baggage handling, fuel systems, air traffic IT, radar, and operational technology (OT) equipment could quickly cascade into widespread delays, outages, and safety risks.

And the results weren't just a matter of staff negligence or poor decision-making. The root problem was systemic: a patchwork of old systems, insufficient network segmentation, and a lack of modern protection for OT devices that control physical infrastructure.

This mix of old and new, with an expanded, always-on attack surface, makes it easier for attackers to exploit overlooked vulnerabilities.

For example, something as innocuous as a connected thermostat in a terminal aquarium can provide a foothold into the broader network. From there, attackers can establish command and control for persistent access, then explore the network to discover and compromise more critical assets, such as baggage sorters, financial systems, or even the air traffic control system.

BUDGET CONSTRAINTS AND MISCONCEPTIONS

Despite the growing threat landscape, many airport cybersecurity teams struggle to move forward. However, this security paralysis is not because they don't know what steps to take, but rather because the perceived cost and complexity of modern solutions seem too high to implement.

Unfortunately, this is one of the biggest misconceptions about security modernisation: that meaningful cybersecurity improvements require massive, dramatic changes.

Because, in reality, security teams can take small, strategic steps using a phased approach that can, over time, yield dramatically powerful results. The key lies in shifting the mindset from "protect everything at once" to "protect what matters most now and scale from there."

Similarly, investments in cybersecurity are often deprioritised in favour of visible infrastructure upgrades or enhancements to passenger experience.

Although the push for airport leadership teams to meet operational performance indicators is a real pressure, failing to build cyber resilience places the impact of those other priorities at risk.

START SMALL, THINK BIG, BUILD MOMENTUM

Zero Trust security is rapidly gaining recognition as the most effective model for securing critical infrastructure. At its core, Zero Trust assumes that no user or system –inside or outside the network – should be trusted by default.

Instead, every connection must be verified, every device's network traffic should be monitored, and every segment of the network needs to be treated as if it were compromised.

This security mindset contrasts sharply with traditional perimeterbased security, in which actors who breach the network often enjoy broad access thanks to weaker internal controls and limited opportunities to enforce security policies.

For airports, which feature tightly integrated systems that are often physically distributed, maintaining the security of the internal network can be exceptionally complex.

BEGIN WITH A PHASED APPROACH

Fortunately, adopting Zero Trust does not require a full-scale overhaul and redesign of IT infrastructure. In fact, a phased implementation is not only possible but also the preferred approach.

Start by identifying small, manageable systems. For example, perform network segmentation and secure seemingly trivial devices such as digital signage and other Internet of Things (IoT) devices with Zero Trust overlays.

These systems are often overlooked as entry points for cyber-attacks, so successfully protecting them can be used to demonstrate success, capture lessons learned, and build internal buy-in for broader adoption.

Gradually, the implementation approach model can be expanded to higher-equity systems, such as baggage control, radar communications, and, eventually, air traffic operations.

The goal isn't to implement Zero Trust throughout an airport's IT and network infrastructure overnight, but to treat it as a continuous transformation that evolves with risk tolerance and budget realities.

OVERCOMING RESISTANCE AND DRIVING CHANGE

Implementing a Zero Trust framework can also seem daunting for airport leaders accustomed to planning conservatively within a highly regulated environment. To executives familiar with traditional IT implementations that span years, such project-oriented Zero Trust implementations can seem limited in scope.

Here, cybersecurity leaders can use the familiar IT world of checkpoints and progress monitors to educate their stakeholders in language they understand. Leverage real-world demonstrations and simulations to showcase the differences between Zero Trust and other security models.

Then, as sensitive digital assets are protected, focus on measuring and reporting the risk reduction that Zero Trust delivers to frame the conversation around progress toward an organisation-level goal.

When stakeholders can see Zero Trust solutions providing value in action, particularly how they shield OT systems from lateral attacks and isolate threats before they spread, the benefits become more tangible.

LOOKING AHEAD: AIRPORTS AS SECURITY INNOVATORS

Airports may be high-value targets, but they are also uniquely positioned to become leaders in shaping the future of cybersecurity.

With sprawling digital ecosystems, physical-to-digital integration, and direct links to national defence and transportation networks, their operations serve as a microcosm for what changes in security posture can mean for other critical infrastructure.

In other words, airport cybersecurity is not only about keeping planes flying, but also enhancing the security of the country's connected critical infrastructure.

By adopting a Zero Trust mindset, prioritising incremental progress, and overcoming the misconception that effective security must come at the cost of usability, budget stability, or operational efficiency, airports can achieve a powerful balance between innovation and resilience.

AW

About the author

Dr Jaushin Lee is a serial entrepreneur with many patents and the visionary architect behind CoIP® Platform, Zentera's award-winning Zero Trust security overlay.

Business exchange

We provide a snapshot of the latest news stories and features from some of the companies that support the growth and development of the world's airports.



SCREENING UPGRADE IN BNE'S DOMESTIC TERMINAL

The brand-new northern screening point in Brisbane Airport's Domestic Terminal is set to deliver a smoother, more streamlined screening experience for Qantas passengers.

It features five brand-new security lanes equipped with Rapiscan CT (Computed Tomography) screening technology, which delivers a more secure screening process and, importantly for passengers, allows laptops and aerosols to remain inside bags, making for a smoother screening experience.

"We're incredibly excited to see this brand-new screening point open to passengers," enthused Stacey Pollard, Brisbane Airport's head of terminal operations.

PRIVATE MEETING PODS UNVEILED AT EDINBURGH AIRPORT

Edinburgh has become the first UK airport to deploy on-demand private meeting pods, following a partnership with Scottish travel tech company SWURF.

The 'SWURF Pod' features advanced soundproofing, private Wi-Fi networks with security-grade encryption, smart LED lighting, air filtration systems, and ergonomic seating for those who suddenly find they need a private space for sensitive business calls.

The gateway's chief commercial officer, Stephanie Wear, said: "We're always looking for new ways to make travel easier and more comfortable for our passengers, and these new SWURF pods are a great example of that."





PPG OPENS HOTEL AT MADRID BARAJAS

Hospitality giant, Plaza Premium Group (PPG), has opened a new landside hotel in Terminal 4 of Adolfo Suárez Madrid-Barajas Airport, Spain's largest and busiest gateway.

Madrid joins London Heathrow, Singapore, Kuala Lumpur, Cebu, Qingdao, Sydney, Rio de Janeiro-Galeão, Muscat, Jeddah, and Shanghai Pudong in boasting Aerotels located either airside or landside on the airport campus.

"By bringing a hotel right into the terminal, we're giving travellers peace of mind and the simple luxury of more time to relax," says PPG's VP for southern Europe, Analia Marinoff.



APOC SOLUTION FROM WAISL COMING TO EUROPE

A pioneering tech company whose Al-powered system has helped boost the efficiency of ground operations at airports in India is looking to export its solution to the UK, Europe and the rest of the world.

According to WAISL, 'AeroWise', a first-of-its-kind Airport Predictive Operations Centre (APOC) has driven efficiencies, increased capacities and provides significant savings for its airport customers in India.

Indeed, it believes that its solution has "revolutionised" the running of Hyderabad's Rajiv Gandhi International Airport and expects the same results when it is fully operational at Delhi's Indira Gandhi International Airport.

WAISL notes that its solution integrates 'landside', 'terminal' and 'airside' systems to enhance operations. It can track people and aircraft across the airport campus, and also predicts problems and offers solutions.

Andy Bordass is heading WAISL's roll-out of AeroWise in Europe, and has no doubt that it could help some of the continent's more capacity constrained airports, including megahubs like Heathrow, which handled an all-time high of eight million passengers in August.

He says: "This is a game-changer. Having worked in the sector for many years, I am only too aware of the stress our airports are under, and the need for efficiencies and increased capacity.

"There are so many systems used in airports, but they are rarely integrated and usually operate independently of each other. What WAISL has done is to enable the integration of them all.

"In Hyderabad, it has successfully integrated more than 40 IT and OT systems. It monitors more than 100 KPIs, provides real-time insights and enables far better planning, faster incident responses, enhanced safety and high levels of passenger satisfaction."

Bordass continues: "One great thing about this tech is that we know it works; it is already operating and making a huge difference.

"Where installed, AeroWise has delivered a 30% improvement in staff and resource utilisation, a 25% reduction in turn-around delays, and an 80% reduction in manual surveillance workloads."

These kind of savings can lead to shorter queues, a better security experience, reductions in missed flights and mishandled baggage, improved traffic flows and more efficient aircraft parking, making airports more sustainable.

Bordass notes that airport retailers can also benefit from AeroWise by improved traffic flows in the terminal.

"Passengers benefit because everything is more efficient and the whole airport experience is better – we know this because it is what passengers going through Hyderabad tell us," he says.

"The UK is a world leader in the sector – our aviation network is second only to China and India's – but to remain so, we have to improve our airports.

"With physical improvements so difficult, technology is often the only option and WAISL's AeroWise is a terrific solution.

"The time it takes to get it up and running depends on the size of airport and the number of systems to integrate – it took 30 months in Hyderabad, an airport with almost 30 million passenger journeys a year.

"Thanks to AI and the tech pioneers at WAISL, we now have a system that can deliver what European airports desperately need."



BOOSTING GATE EFFICIENCY IN CALGARY

Assaia has announced a comprehensive deployment of its ApronAl technology across 67 gates at Calgary International Airport (YYC) in Canada.

The deployment, which started this summer, builds on a successful 10-gate pilot programme already operational at YYC.

"This comprehensive approach addresses a critical AI opportunity – ensuring the technology reaches its full potential through complete coverage and adoption," says YYC's chief information officer, Megan Gupton.

"We expect it to provide consistent, airport-wide visibility and efficiency to turnaround operations."

The airport broke passenger records in 2024, reinforcing the need for advanced operational tools to manage increasing traffic volumes while maintaining service excellence.

Funded in part by a C\$1.1-million investment from the Government of Canada through Transport Canada, the phased implementation ensures thorough integration with YYC's existing operations while maintaining service continuity throughout the deployment process.



FRAPORT EXTENDS NASHVILLE RETAIL CONCESSION

Fraport Nashville LLC will continue to act as the developer and manager of the concessions programme at Nashville International Airport until at least 2034 after singing a five-year extension to its contract with the Metropolitan Nashville Airport Authority (MNAA).

"Our team in Nashville has aligned itself with the goals and vision of the authority and is cultivating an environment that brings the real Nashville to the airport through flavours, brands, community and opportunity," said Sabine Trenk, CEO of Fraport USA Inc.

"Since our partnership with MNAA began in 2018, it has been a privilege to support its vision of creating an authentic Nashville experience for millions of travellers at the airport. This extension further strengthens our collaboration and our commitment to enhancing the passenger experience through a concessions programme that embodies the true spirit of Music City and Tennessee."

Fraport Nashville and BNA were awarded the prestigious 2025 ACI-NA Richard A Griesbach Award for Excellence in Airport Concessions. Since 2018, it has introduced nearly 100 new shops, restaurants and services.



MODULAR AND FLEXIBLE

Copenhagen Optimization shares how a new operating landscape is bringing 'best of breed' suppliers into one data-management planning and operating system.

Airports have long been asked to choose between sprawling, do-everything platforms or a patchwork of specialised tools.

A best-of-breed approach offers a better third way: assemble the strongest specialist systems for each job – AODB (Airport Operational Data Base), RMS (Resource Management System), billing, content management, passenger tracking etc – and integrate them into one coherent operation.

Each component can be built by a team dedicated to that specific domain, so the airport gets higher quality in every area, plus the ability to swap parts without ripping out the whole stack. In other words: modular by design, flexible by default.

WHY THIS IS WHERE THE INDUSTRY IS HEADED

Two shifts make a best of breed approach inevitable. First, the operational challenge: airports must grow throughput and improve passenger experience without expanding their physical footprint.

They can't build their way out of every constraint. But they can unlock capacity – often quickly – through sharper allocation and planning. Freeing up gates through better stand allocation or smoothing peaks at check-in can deliver millions in value far faster than a multi-year build.

Second, the technology is ready. Modern, cloud-native systems pave the way for clean APIs (application programming interfaces), well-documented interfaces, and support integrations across any data point.

That means the airport can orchestrate data in and out, align decisions across functions, and keep each system current as requirements evolve.

Crucially, this architecture restores leverage to airports: if a module underperforms, that module can be replaced rather than performing open-heart surgery on the entire IT estate.

Just as important, best-of-breed keeps the focus on outcomes over software. Specialists who live and breathe a single problem iterate faster with users, so tools evolve with the operation – not the other way around. More bottom-up pull can be expected from planners and controllers who know there's a tool that fits their job exactly and want it in production.

GETTING STARTED: A PRAGMATIC PATH TO BEST-OF-BREED

- Target the biggest win first. Airports should start where pain is sharpest or the upside is obvious – baggage planning, stands and gates, billing accuracy, or passenger flow visibility. Replace that component, integrate it with the existing AODB or EBS (enterprise service bus), and prove value quickly.
- 2. Make openness non-negotiable. In procurement, require API-first design, cloud readiness, and clear integration patterns. Define data ownership and exit rights up front to avoid lock-in.
- 3. Design for replaceability. Treat every system like a contract: clear inputs/outputs, SLAs (service level agreements), and business outcomes. If expectations aren't met, the airport should be able to substitute the module without destabilising operations.
- 4. Choose the rollout rhythm. Some airports modernise domain by domain; others bring a consortium of best-of-breed vendors to replace a legacy suite in one move. Airports should pick the cadence that matches their appetite for risk and internal bandwidth.
- Bring users to the table. Planners, dispatchers, and ops controllers should help shape requirements and roadmaps.
 When tools reflect real workflows, adoption sticks, and benefits arrive sooner.

Best-of-breed isn't a trend; it's an operating model. Build the digital core from excellent parts that play beautifully together, and an airport can gain the agility to meet today's pressures – and the headroom to seize tomorrow's opportunities.

PEOPLE matters



To travel or not to travel?

Richard Plenty and Terri Morrissey reflect on the 21st century version of Shakespeare's existential question.

e write this while we are attending the COP30 Climate change conference in Belem, Brazil, as representatives of the Global Psychology Alliance (GPA).

We spent this morning working with others from around the world. This afternoon, we listened to the opening address, in which Brazilian President Lula said 'people matters' needed to be at the heart of the change agenda. Regular readers of this column will realise that this is a view we share!

We're not actually in Brazil but working from home in different countries (Ireland and the UK), along with colleagues scattered around the world. We are nearly all virtual participants.

We have one in person delegate on the ground in Belem. Yet we still feel a sense of community, connectedness and team cohesion. We share a common purpose.

It is only four years ago that we attended the COP26 conference in Glasgow. At that time our whole delegation attended in person. Since then, the opportunity to attend virtually has expanded, become more formalised and inclusive. The immediate saving in environmental and economic costs, as well as our time, is enormous.

Modern technology has made this possible, transforming how we are able to work and interact – enabling video conferencing, instant messaging, and digital communication across continents.

Remote working, once seen as a poor substitute for 'being there', continues to evolve as virtual and augmented reality, together with immersive online platforms, allow people to collaborate, explore, and share experiences in increasingly realistic ways.

Given these circumstances, it is tempting to ask whether in due course we could connect, collaborate, and even live our lives almost entirely online?

Virtual communication offers efficiency and convenience. We could all stay at home rather than have to travel. It could be more flexible, cheaper and less environmentally damaging. But is it likely to work?

It might come at a cost to creativity. An article in *Nature in 2022* by Melanie Brucks and Jonathan Leavy found that virtual communication curbed creative idea generation simply because it focused the gaze of

communicators on a screen, rather than looking around as they would in in-person groups.

Indeed, moving about is important. The layout of Apple's headquarters in Cupertino, California, was deliberately designed to encourage random encounters and the kind of informal communication that fuels collaboration and innovation.

Exclusively working remotely might also make it more difficult to build trust, which underpins most high performing teams. This is helped by people getting to know each other as individuals rather than images on a screen. How often, for example, have we been surprised by how tall someone is when we meet them in person having worked with them virtually?

Research by UK psychologist Amanda Potter and her team at Zircon shows that in-person teams feel a greater sense of psychological safety than those working remotely.

Professor Alex Haslam, lead author of the groundbreaking book *The New Psychology of Leadership*, argues that a feeling of 'belonging' and shared social identity is key for both personal wellbeing and organisation performance.

It may not work well either on a personal level, where the demand for travel continues to grow. People have a desire to visit new places, go on holiday, and have different experiences whatever the practical difficulties and costs.

Reconnecting with family and friends provides a warmth and quality of shared experience that video calls cannot match. Sometimes we just need to be there.

Still, travel comes at a cost: economic, personal and environmental. The future of connecting people and places lies not in a stark choice between the physical and the virtual, but in choosing carefully what is best suited to the context and circumstances. To travel or not to travel – that is indeed the question.

AW

About the authors

Terri Morrissey and Dr Richard Plenty run ACI's Human Resources training. They received a Presidential Citation from the American Psychological Association in June 2022 for their leadership in advancing global psychology. Contact them at info@thisis.eu

LET'S WORK TOGETHER

BUILD THE AI FUTURE WITH US





AI SOLUTIONS

Solve your problems faster with pragmatic, outcome-focused Al

AI HUB

Set up your engine to adopt AI quickly, safely and at scale

AI FUTURE

Weave Al into your strategy, culture and operating model



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