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Airport Profile: Delhi Noida (DXN)

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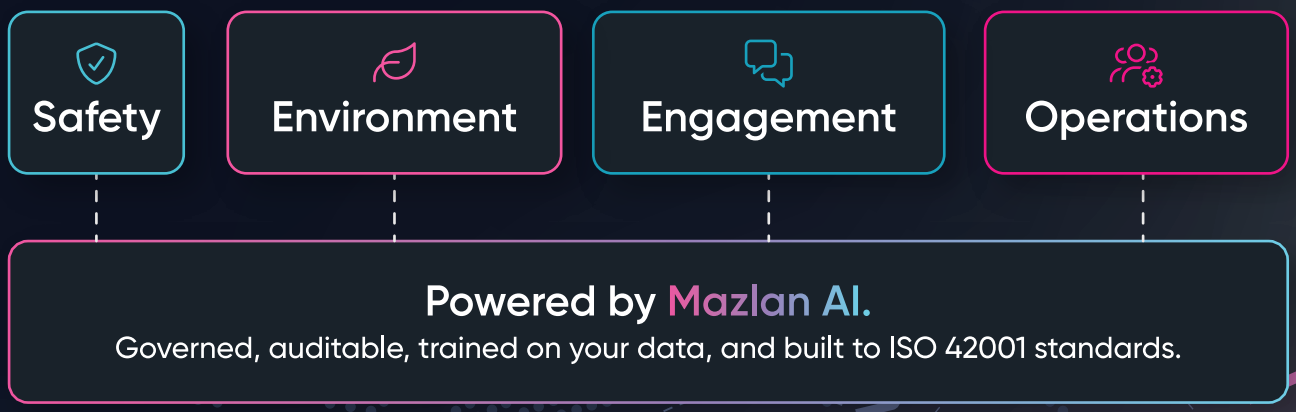
IN THE SPOTLIGHT: **INNOVATION**

Issue 5, 2026

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Issue 2, 2026



Issue 1, 2026



Issue 6, 2025



Issue 5, 2025

Innovation time!

Editor, Joe Bates, reflects on the importance of innovation ahead of ACI World's Airports Innovate conference in Barcelona and our own AI in Airports summit in London.



As some of you will know, I have written about the aviation industry for more than 40 years, and innovation was not a word you heard very often when talking about airports back in the early 1980s.

Airports have, of course, always innovated in one form or another, but back then they weren't so good at telling the world about it, and today's hot topics such as 'the airport experience' and 'sustainability' weren't high on the agenda and artificial intelligence was something you read about in Sci-fi novels.

I would argue that today's airports are great innovators, despite operating in one of the most heavily regulated environments in the world with multiple agencies on-site, which doesn't exactly encourage innovation.

Indeed, in many instances, outdated regulatory frameworks, national security protocols and data protection concerns have hampered innovation at airports.

But it certainly hasn't stopped it as airports continue to strive to find new ways of making their facilities better, more operationally efficient, sustainable, easier to use and, in some cases, more fun to visit.

You can read about many of the ways airports are innovating in this 'innovation' themed issue of *Airport World*, where we cover everything from the introduction of transformational technology, the latest accessibility and passenger services innovation to a glimpse of what we can expect from JFK's New Terminal One and the arrival of electric vertical take-off and landing (eVTOL) aircraft.

The themed features include an 'innovating the airport customer experience' article from ACI World's Dimitri Coll (senior vice president and chief products and services officer) and Antoine Rostworowski (senior vice president, programmes and commercial services).

The innovation content of this edition is designed to complement two upcoming industry events – *ACI World's Airports Innovate Conference* in Barcelona and our own *AI in Airports summit* in London.

Elsewhere in the issue we have features about making airports more family friendly; Africa's PPP challenge; route development; and building both cyber and operational resilience.

Our main airport feature is on India's new Noida International Airport, which has made a favourable impression on passengers and the airlines since its opening earlier this year.

In the article, Christoph Schnellmann, vice chairman and former CEO of Noida International Airport, notes that he hopes the new gateway reflects a combination of "Indian hospitality and Swiss efficiency".

He also reveals that operator YIAPL is already thinking about the next phase of the airport's infrastructure development despite being open for less than six months.

If that's not enough, we also have articles about the need to get smarter at making choices for passengers; the design of Noida International Airport; and Seattle Tacoma International Airport's expanded C Concourse.

We round the issue out with our final ever 'people matters' column and airport supplier news and features on the 'business exchange' pages.

All make for a pretty good edition of your favourite airport magazine, I hope you'll agree!

I look forward to ending the year on a high by catching up with you all at Airports Innovate and AI in Airports.

AW







ISSUE 5
Volume 31

Bengaluru's Kempegowda International Airport has launched trials of India's Digi Yatra initiative for international departures.

In this issue

3 Opinion
Editor, Joe Bates, reflects on the importance of innovation ahead of ACI World's Airports Innovate conference in Barcelona and our own AI in Airports summit in London.

6 Fantastic journey!
Joe Bates discovers how Noida International Airport has fared in its first few months of operations and what we can expect to see in terms of its growth and development over the coming decades.

12 One of a kind
Andrew Thomas, managing partner at Grimshaw, tells us more about the design, development and uniqueness of Noida International Airport.

14 Capturing the value of AI
How are airports organising themselves to explore AI and deliver on its potential? Nicholas Crane, senior consultant, Egremont Group, provides his thoughts.

16 Enhancing the customer experience
Continuous innovation is essential to stay competitive, write ACI World's Dimitri Coll, senior vice president and chief products and services officer, and Antoine Rostworowski, its senior vice president, programmes and commercial services.

18 Learning curve
Rudy Daniello, executive vice president for airports and borders at Amadeus, considers how agentic AI is reshaping airport decision-making.

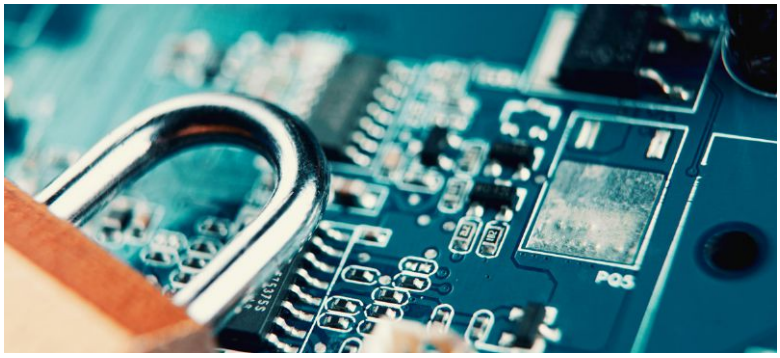
22 Always innovating
We take a closer look at some of the latest accessibility innovations and passenger services initiatives at airports across the world.

26 Preparing for take-off
Joe Bates reports on the ups and downs of the Advanced Air Mobility market as the world awaits the launch of the first commercial services by electric vertical take-off and landing (eVTOL) aircraft.

28 The intelligent terminal
Operator, New Terminal One, is confident that visitors will experience a world-class journey at JFK's new state-of-the-art passenger facility when it opens in the first quarter of 2027.

30 Question time
Malte Kosub, co-founder and CEO of Parloa, considers the growing use of voice AI agents as part of the digital transformation of airports.





32 Family matters
When it comes to accommodating families, airports need more than dedicated lanes at security, they need to rethink the whole line, write Gensler's Andy Huang and Terence Young.

34 Cognitive load!
Neuroscience and AI consultant, Professor Alexandre Rodrigues, explains that the industry needs to get smarter at making choices easier for passengers to enhance the airport experience.

38 Audit readiness
Is regulatory technology (RegTech) the next big thing for airport investment? Clinton Cardozo, CEO and co-founder of OneReg, provides his thoughts.

40 Time for a new approach?
Arthur Lavier, managing partner of Aervanta Aviation Consulting, argues that Africa needs a new privatisation playbook to avoid a capacity crunch.

42 Electric avenue
Grid capacity is the new constraint on airport electrification, but doesn't have to stall progress, writes Damien O'Regan, product strategy lead at Enatel.

44 Project Watch – Seattle-Tacoma International Airport
The expansion of Sea-Tac's C Concourse is designed to improve the passenger experience by enhancing circulation comfort, and accessibility at the Pacific Northwest's busiest airport.

46 Digital dangers
Flare's Adrian Cheek considers some simple steps airports can take to make themselves less vulnerable to cybercrime.

48 The connectivity challenge
Frankfurt, Berlin and Munich prove that the best airport networks are not necessarily those with the most destinations, argues Ahmed Alhamayda.

50 Adapt and grow
Airports must prioritise adaptability to build operational resilience in uncertain times, writes Schneider Electric's mobility segment president, Ignacio Camauer.

52 Going green
Airport World highlights five very different projects that are designed to help ensure the sustainable growth of their respective airports and aviation.

54 The last post
After writing 75 columns over close to 13 years, Dr Richard Plenty and Terri Morrissey sign off by exploring the human challenges facing airports and the people who make them work.

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



Fantastic journey!

Joe Bates discovers how Noida International Airport has fared in its first few months of operations and what we can expect to see in terms of its growth and development over the coming decades.

Noida International Airport (DXN), India's newest airport and the second gateway built to serve Delhi and the National Capital Region, officially opened for business this summer.

Inaugurated in March by India's Prime Minister, Narendra Modi, the airport handled its first commercial flight on June 15 with the arrival of IndiGo flight 6E-2278 from Lucknow.

Located in Jewar, around 75 kilometres south-east of central Delhi, the new $900 million greenfield gateway is initially capable of accommodating up to 12 million passengers per annum.

It boasts a 137,985sqm terminal with 10 boarding bridges, 28 aircraft parking positions, a privately operated cargo terminal and a 3,900-metre runway capable of handling aircraft up to the size of A380.

However, with phased future expansions, the airport is expected to have an ultimate capacity of 70 million passengers per annum.

The total would ensure that between them, Noida and Delhi's Indira Gandhi International Airport (DEL) are more than capable of accommodating traffic growth to India's capital city region to 2060 and beyond.

And it's not just passenger traffic, as DXN is expected to become a key cargo hub for the surrounding region as it is located in an industrial belt known for its manufacture of electronic goods and close to major farming regions that need to export their products.

The bulk of cargo at DXN will be handled by Air India SATS (AISATS) – a joint venture between Air India and global airport provider SATS – which currently operates a 22,000sqm terminal and is working on the development of more dedicated cargo facilities across an 80 acre site.

Afcom, a Chennai-based international cargo airline, has agreed to base its fleet of three Boeing 737-800 freighters at Noida, a move that strengthens the airport's potential to become a key logistics and cargo hub in North India.

The more than one million tonnes of cargo handled at DEL each year arguably shows the current and future potential of the air cargo market in Delhi and the National Capital Region (NCR).

"I'm very optimistic when it comes to cargo, probably as optimistic as I am about passenger growth, as Noida has great potential to become an important cargo hub," comments Christoph Schnellmann, vice chairman and former CEO of Noida International Airport.

So, how big a milestone for India and the NCR is the opening of Noida International Airport?

"I think Noida International Airport is a very important addition to India's aviation infrastructure," says Schnellmann.



"Looking back over the past two decades we've seen passenger volumes and air travel grow by double digits annually, while air traffic in Delhi has grown eight-fold, and we expect that trajectory to continue, so the need has certainly come for additional airport infrastructure in India's National Capital Region and Western Uttar Pradesh.

"We're very happy that we've been able to deliver the new infrastructure and now have the opportunity to provide additional connectivity to the region, and especially the eastern and southern parts of it, including the growing areas of Noida and planned future city of Greater Noida."

Initially viewed as an alternative to DEL, Noida International Airport was built, and will be operated by Yamuna International Airport Private Limited (YIAPL), a special purpose vehicle set up for the job that is 100% owned by Zurich Airport International.

Schnellmann, for one, has no issue with stating that DXN will complement operations at DEL as the Indian market is huge – around 30 million people live in Delhi alone – and needs all the capacity it can get.

Handling close to 80 million passenger per annum, DEL will of course continue to meet the main aviation needs of Delhi for the next few decades, although the gap between them in terms of traveller volumes is likely to get smaller over the years as DXN grows its route network and facilities.

"Time will, of course, tell how our market and catchment area develops, but for now, we're providing core connectivity for Greater Noida, for Ghaziabad, for Faridabad, and for towns further south," notes Schnellmann.

"I expect our passenger numbers and appeal to grow as we develop an international route network.

"The development strategy is simple. It's about providing additional air connectivity to Delhi, to the National Capital Region, and to Western Uttar Pradesh.

"It's also about providing and being part of the economic growth and development of Noida and the surrounding region."

AIRLINES AND ROUTE NETWORK

Noida International Airport is currently served by Indian low-cost carriers IndiGo and Akasa Air, which between them operate 35 to 40 domestic flights daily to 17 destinations across the country.

The cities served from DXN are Amritsar, Bareilly, Bengaluru, Bhopal, Dehradun, Dharamshala, Hyderabad, Jaipur, Jammu, Jodhpur, Kishangarh, Kolkata, Lucknow, Mumbai, Pantnagar, Srinagar and Udaipur.

The latest addition is Udaipur, which IndiGo launched daily non-stop services to/from on October 25.

IndiGo and Akasa were meant to have been joined on DXN's opening day by Air India Express, but cost cutting within the Air India Group is believed to be behind its eleventh-hour decision to postpone the launch of operations from the new airport.

The airport remains hopeful that it will see Air India Express services in the future, but for now Schnellmann is happy with DXN's route network, which provides connectivity to a host of Indian cities and some tourist destinations in the north and south of India.

He reveals that DXN is already seeing some domestic transfer traffic through Noida, and believes that this will increase over time as its route network grows and international services join the traffic mix.

The airport expects to handle its first international flights early next year and is initially targeting destinations in the Middle East and Southeast Asia.

"Based on our conversations with the airlines, we anticipate that our first international destinations will be nearer abroad initially, so we are looking at destinations in Southeast Asia and the Middle East," says Schnellmann.



"These new routes will feed traffic directly into global airline networks and bring international passengers to Noida, and potentially onto other destinations in India, via our domestic network."

He is, however, quick to point out that he doesn't see DXN as competing directly against Indira Gandhi International Airport for traffic.

"We see ourselves as complementing their offer and the access and infrastructure that is that is already available in the region," says Schnellmann.

"Perhaps a better way of saying it is that Noida International Airport is providing a platform for aviation in India to continue growing."

EARLY TRAFFIC FIGURES

How has Noida International Airport fared since opening in terms of passenger numbers and cargo volumes?

"We've been open four months now, and we've seen traffic growth and we've seen the network grow to 17 destinations. Looking forward to the winter timetable, we anticipate these volumes to almost double, so I think we are doing OK," comments Schnellmann.

"I'll be honest with you, it's not the easiest time for aviation right now, particularly so in India, where I think a number of factors have seen the air transport industry suffer more perhaps than elsewhere.

"For the first time in decades, leaving COVID aside, we have seen year-on-year traffic decline a little bit in the past few months. This has, of course, affected air travel everywhere, including at our airport.

"But, all things considered, I'm really pleased with the ramp up, and I'm pretty pleased by the interest and the commitment that the airlines continue to show in Noida."

The only traffic figures made available by the Airports Authority of India (AAI) at the time of going to press showed that Noida International Airport welcomed 25,000 passengers and 204 flights in June, and this figure increased to 77,000 passengers and 1,044 flights in July.

PASSENGER AND AIRLINE FEEDBACK

Schnellmann has no hesitation is stating that the early feedback from both the travelling public and airlines using the airport has been very positive.

"I know I could hardly be expected to say otherwise, but the feedback has been very encouraging," he says.

"Yes, as with any new infrastructure, and particularly one where parts of the building aren't fully open yet, there have been some issues. Indeed, we continue to discover some snags, but I am pleased to say that there's been nothing major that's disrupted our operations or passenger comfort.

"One of the points that some of the passengers have made is that they look forward to a larger retail and food and beverage offering, and this is something we plan to address within the next few weeks with the opening of additional outlets."

The ease of use of the gateway – passengers can get from the kerb to the nearest boarding gates just 200 metres away in under 20 minutes – is one of Noida International Airport's attributes that has most impressed travellers.

Schnellmann remarks that the terminal's designers have created "a really nice space", adding that the facility's gate seating areas have also proved popular, as have what he calls the 'lifestyle furniture" at the windows next to the boarding bridges.

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Christoph Schnellmann (right) was joined by a Swiss delegation and Cabinet Minister for IT and Electronics, Sunil Kumar Sharma, at Noida in early October.



NEW TECHNOLOGY

Although DXN is equipped with eGates, self-service check-in and baggage drop kiosks and embraces biometrics throughout the journey, Schnellmann doesn't really think of Noida as being a high-tech airport.

He explains: "What we do, and continue to work on doing, is to deploy technology in the interest of the passenger experience and in the interests of smooth and efficient operations.

"As a new airport we had the opportunity to embrace the latest technology that's available and, one specifically Indian thing that I'm very excited about, is the use of the Digi Yatra technology."

Digi Yatra is a government backed digital initiative for Indian residents that uses facial recognition-based technology to effectively enable contactless identity verification at entry and security points, cutting processing times and enhancing convenience.

Talking about its adoption at DXN, Schnellmann says: "Once you are registered for it you can effectively walk through the airport from kerbside to boarding.

"I think that this is one of the areas where we've gotten it right. Yes, there's a lot of technology at work across the airport, but hopefully it doesn't feel like it as passengers just enjoy an easy-to-use facility, and seamless experience."

GROUND TRANSPORT LINKS

The six-lane Yamuna Expressway certainly makes getting to and from DXN by road quick and easy for passengers travelling from Delhi, Agra and Lucknow.

Indeed, DXN is located just 600 metres from the expressway that connects Greater Noida to Agra, and plans are underway to add a new link road connecting the airport to the Delhi-Faridabad-Ballabhgarh-Sohna stretch of the Delhi-Mumbai Expressway.

Schnellmann notes that a "pretty robust" bus network has been in operation since the airport opened, while app-based taxis, limousines, and rental cars also provide ground transport options for those not wishing to use the public transport system.

He says: "We promised from the start that there would be a quick and easy way to reach the airport for every budget, and I think we've met that promise.

"You know, Delhi is a very large place with 30 million inhabitants, and as a result, millions of people live within a 45 or a 60-minute drive of the airport.

"It obviously depends on where you are coming from and the time of day you travel, but from some parts of northern Delhi, parts of western Delhi or Gurgaon, it might be quicker to reach this airport than Indira Gandhi International Airport."

GROWING SUSTAINABLY

Schnellmann states that sustainability has been "front and centre" for DXN and operator YIAPL since Day One, as it is for parent company Zurich Airport International.

Sustainability initiatives at DXN include having its own 10-megawatt solar farm, the use of all-electric vehicles for almost all activities other than fire rescue, a zero-liquid-discharge policy, the operation of a circular-waste system, and plans for a windfarm.

He says: "We made sure that sustainability concepts and the commitment to grow sustainably would flow into the airport design and become an integral part of its construction.





"Our shareholder, Zurich Airport Limited, has made a commitment to operate all of its airports across the world on a net zero emissions basis by 2040. We have set an even more ambitious target of 2030."

Schnellmann expects DXN to begin to feel the benefits from the planned new windfarm, being built off-site, before the end of the year.

CUSTOMER EXCELLENCE

"Indian hospitality clubbed with Swiss efficiency" is how Schnellmann describes Noida's customer service strategy.

"That's the tagline we use as hospitality is something that India does incredibly well," he says.

"That sense of warmth and that human touch is something we've really tried to bring to the airport and encouraged our teams to embrace across the campus.

"We also want this warmth and hospitality to be reflected in our retail and food and beverage outlets, in our architecture and elsewhere in the terminal, and recognise that this needs to be in lockstep with smooth and efficient airport operations."

FUTURE DEVELOPMENT

With the airport being open for business for less than six months, it seems crazy to be talking about its future development already, but that is exactly what operator YIAPL has done in its four phase master plan.

"It does seem mad to be thinking about new infrastructure when we only opened in June, but we are already talking about it because such are the growth prospects in in India," enthuses Schnellmann.

"Indeed, one the things the Zurich Airport Group learnt from developing Bangalore Airport in the past was that if anything, we underestimated the growth, and the speed of growth, in India.

"So, the master plan we've developed for Noida sees the airport building expanding to accommodate over 70 million passengers per annum.

"The triggers for further expansion are our passenger volumes. That's also enshrined in our concession agreement. The design capacity of the existing terminal is 12 million passengers per annum. Once we reach 80% of that, we're obliged to plan the next phase of expansion, which will more than double Noida's capacity to 30 million passengers yearly.

"We've actually designed a terminal for 30 million passengers, and only built half of it, so we would sort of mirror the existing facility, doubling it in size, in the first expansion phase.

"After that we'd be looking at the case for a second terminal elsewhere on the airport site and a second runway."

He admits that it is almost impossible to put timescales on the future development of DXN's core aviation facilities, although says he wouldn't be surprised to see work begin on the expansion of the existing terminal by the end of the decade.

The ability to act swiftly to upgrade its facilities when the time arises shouldn't really come as a surprise as Schnellmann reminds me that DXN was built and up and running within six years of the land being acquired for the project.

That is hugely impressive for an airport project that had previously been talked about for more than 20 years without ever getting off the ground.

AW



All images courtesy of Grimshaw/Ekansh Goel.



One of a kind

Andrew Thomas, managing partner at Grimshaw, tells us more about the design, development and uniqueness of Noida International Airport.

Noida International Airport (DXN) is immediately distinct. It's a terminal that is shaped by a single idea: of putting place and people at the heart of design.

But airport terminals are some of the most complex and, fundamentally, operational places, so how do you create a piece of infrastructure that is so human and rooted in its context?

Designed by Grimshaw in collaboration with Nordic Office of Architecture and Haptic Architects, DXN is already considered to be unlike any other Indian airport.

Entering the terminal, the first impression is one of space. But it's not all about high ceilings and wide circulation routes. The terminal experience starts before the building itself, shaping the passenger journey and movement, the environmental strategy, and the commercial experience, to create a terminal that is unmistakably of Noida and Uttar Pradesh.

THE FORECOURT: A CIVIC THRESHOLD

The clearest physical expression of this idea is the forecourt. Unlike other terminal buildings, this generous and sheltered space is a focal point for passengers.

It is the main entry point for the terminal and becomes a dwell zone rather than a thoroughfare. This is one of the key design moves, where pedestrian movement and public transport are prioritised.

Instead of the conventional raised departures kerb, a stepped landscape, reminiscent of the Ghats of Varanasi, leads up to the forecourt and provides seamless access between the terminal building and the proposed metro links to Delhi and arrivals kerb in the Park Plaza. As a programmable 10,000sqm space, the forecourt accommodates retail, food and beverage outlets beneath a shaded roof structure.

These are functions that would typically sit within an enclosed, mechanically cooled terminal building enclosure, but its integration within the forecourt reduces the terminal's internal area and in turn its embodied carbon and cooling demands.

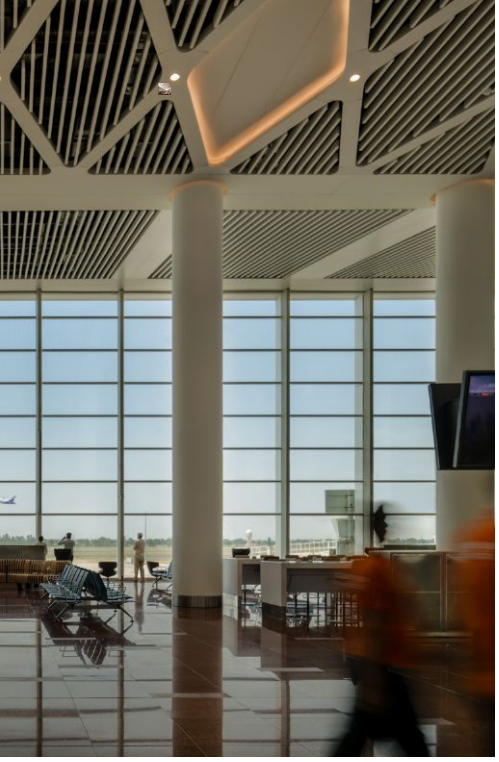
As the threshold to the terminal building, the forecourt gives the airport a civic weight. It marks the important moments of a journey – arrival and departure – and embodies the true sense of traditional Indian hospitality.

THE ENVIRONMENT: CONNECTED HUMAN COMFORT

The connection between the way people use and move through the terminal continues beyond the forecourt.

In a climate that ranges from 42oC in summer to winter temperatures as low as 7oC, maintaining this consistent experience is all about comfort.

An adaptive comfort range across the terminal responds directly to the local climate. Developed with the environmental engineering teams Urban Systems Design and AEON, mixed-mode ventilation, controlled daylight, and a high-performance envelope all work together create comfortable and healthy spaces while reducing energy requirements for mechanical cooling. Mapping passenger activity and movement was central to this design.





Sitting within an oasis of green within the greater Delhi urban region, landscape also become a navigation and environmental tool.

A sequence of green spaces extend from the Park Plaza, which contains the car park and access to the proposed metrolink, to the forecourt and terminal building: a thread that accompanies passengers and finding moments of pause in the grand internal courtyards.

These openings deep within the terminal plan, enable natural ventilation during the mild seasons which also further reduces the demand for active cooling.

And louvres integrated in the planters and seating bring cooler air to the air handling units putting less demand on the HVAC system.

Together, these passive, mechanical and landscape measures are expected to deliver around 30-40% of the airport's operational carbon savings. Sustainability here is not framed as a technical layer but a lived passenger experience and an operation that can adapt accordingly to climate, people and context as the terminal reaches its full capacity.

THE ROOF: FUNCTION AND IDENTITY

The roof, developed with Tyréns AKT, carries this context across the terminal. Conceived as a single sheltering surface, it extends from kerbside to airside, bringing orientation and clarity to what can otherwise be a complex travel experience.

Its effectively flat form is supported by tapered steel trusses arranged in a diamond pattern, with evenly distributed skylights and generous perimeter gutters that collect rainfall for recycling during the monsoon months.

The skylights bring diffused daylight to more than 88% of the check-in hall and domestic airside zone while limiting overheating.

A predominantly solid western façade shields against the low summer sun, with vertical fins protecting the glazing behind.

Fully glazed northern façades provide daylight and views of the runway, while southern overhangs and louvres respond to the sun's orientation.

These elements also give the terminal its regional identity. Beneath the roof, a tensile soffit of high-tenacity polyester yarn follows an undulating form. The red-toned, glass-reinforced concrete fins on the western facade echo traditional Jaali screens.

Working together, the structure, materials and environmental performance of the terminal create a unique place, a distinctive identity for Noida. And in its continuous form, the roof is expected to help passenger orientation, creating a terminal easy to navigate and inseparable from its place.

THE TERMINAL: AS A CITY

Located about 70km from central Delhi, the airport is also a catalyst for long term development and a future airport city. Simple, clear, modular planning principles underpin this approach.

The terminal also draws on the experience of moving through a city. The forecourt becomes a town square, the retail and commercial plaza will evoke a city street, with retail units, stalls and food-and-beverage pods drawing on Indian street life rather than the conventional enclosed shopping-mall model.

Materials and planting reinforce this sense of place, with more than 35 native plant species integrated into the design. And the signage and wayfinding system operates as a 'natural' system where the architecture aids navigation.

PEOPLE: THE COMMON THREAD

From forecourt to departures, the design of DXN treats climate, culture and context not as separate considerations but as part of the same interconnected response, connected by people.

This conscious decision shaped everything, from the clarity of movement and commercial opportunities to environmental performance and future adaptability.

The result is an airport that is unmistakably of its place while ready for what comes next.

AW



Capturing the value of AI

How are airports organising themselves to explore the value of AI and deliver on its potential? Nicholas Crane, senior consultant, Egremont Group, provides his thoughts.

Airports are approaching artificial intelligence (AI) and innovation in different ways. Some have established dedicated innovation teams while others co-ordinate activity through existing departments.

Others have given individuals, or external specialists, responsibility for exploring and pursuing opportunities across the business.

Through conversations with airport leaders, I have identified four broad approaches to how airports are organising themselves to explore AI and capture its potential value. These discussions reflect the wider shift in the industry, as airports continue to explore how AI could improve operational performance, support commercial decision-making and create new strategic opportunities.

The approaches differ in their structure, resources and relationships with operational departments. Airports are making progress through different arrangements, suggesting that no single model is necessarily preferable.

What matters is whether the chosen approach is supported by the conditions needed to translate AI and innovation into measurable value.

HOW ARE AIRPORTS ORGANISING FOR AI INNOVATION?

These approaches are neither mutually exclusive nor stages of maturity. They describe how airports have started organising responsibility and resources to identify, develop and implement opportunities, with a focus on those enabled by AI.

1. THE INDIVIDUAL CHAMPION

In some airports, responsibility rests primarily with an innovation or product manager, supported by senior leadership and a set budget. This individual works with departments to identify opportunities and coordinate trials of emerging technologies.

The approach can enable quick decision-making and close engagement with real operational challenges, provided the individual has strong relationships and authority to act.

Its limitation is dependence on one person's capacity, which makes this typically unsustainable over time. What we do see though, is the individual champion as a starting point for The Distributed Network.

2. THE DISTRIBUTED NETWORK

Other airports use a central innovation lead supported by representatives from operational and corporate functions, who contribute alongside their existing responsibilities.

This provides access to knowledge across the airport and helps identify where AI could address specific departmental challenges. Its effectiveness, however, depends on representatives having sufficient time and support. Competing operational priorities can otherwise slow progress.

3. THE DEDICATED INNOVATION FUNCTION

Some airports establish specialist teams combining technology, business analysis, project delivery and operational improvement expertise. These teams identify and evaluate opportunities, engage technology providers and coordinate an innovation portfolio.

A dedicated function offers continuity, capacity and accountability, but requires investment. It must also remain lean and able to move quickly, while staying connected to operational departments and focused on genuine needs

4. THE EXTERNALLY LED PROGRAMME

A further approach involves an external partner co-ordinating an innovation programme, from identifying opportunities and engaging technology providers to managing experiments.

This can provide specialist expertise and access to the wider AI technology market where internal capacity is limited. The airport nevertheless needs to retain ownership of its priorities and the ability to implement and sustain successful solutions.

Each of these approaches has advantages and limitations. The more useful question for most airport leaders is whether their chosen arrangement is equipped to deliver value.

WHAT ARE THE CONDITIONS FOR CREATING VALUE FROM AI?

Four conditions deserve particular attention when establishing or developing an airport innovation programme.

1. BEGIN WITH PROBLEMS AND OPPORTUNITIES, NOT TECH.

With AI attracting considerable attention and momentum, airports are frequently presented with technologies offering new capabilities.

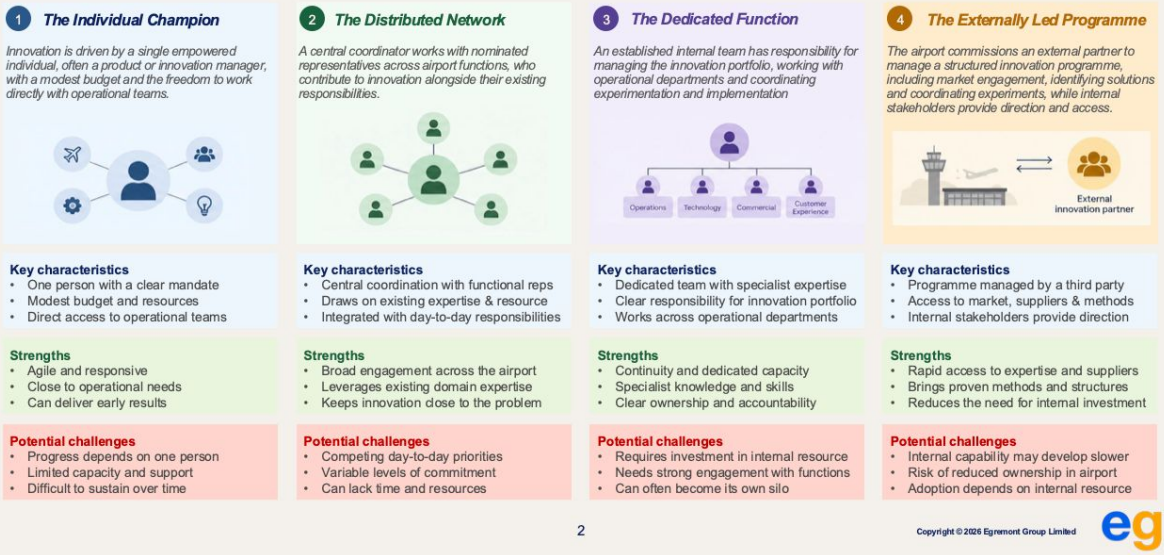
Understanding these developments is valuable, but starting with a solution and searching for somewhere to apply it can be unproductive.

This is because it often leads to a tool being applied to solve a presenting symptom, rather than the root cause of the problem. This then makes any benefit difficult to realise and measure.

A stronger starting point is a defined operational, commercial or strategic challenge. Where are resources being consumed unnecessarily? What constrains capacity? Which processes affect service or safety performance? Where could better information support commercial decisions?

Four approaches to organising airport innovation

Airports are taking different approaches to drive innovation. Each model has distinct characteristics, strengths and challenges, and the right approach will depend on the airport's circumstances, resources and priorities. There seemingly is no one size fits all approach.



An airport might identify an activity requiring substantial staff time, estimate the potential productivity improvement, and then assess whether AI, automation, process redesign or another intervention is appropriate.

Understanding the problem the tech is solving and quantifying the opportunity first, provides a basis for comparing options and subsequently measuring results. It also allows airports to explore AI applications without losing sight of the intended outcome.

2. ESTABLISH DIRECTION AND LEADERSHIP SUPPORT

AI adoption needs a clear connection to the airport's wider priorities. Senior leaders should establish where effort is best directed, allocate resources and help resolve barriers between departments.

This matters particularly where AI applications depend on data held across different functions or require changes to established processes.

Visible sponsorship can sustain commitment through experimentation and uncertain outcomes, while allowing those responsible for delivery to exercise judgement about how to proceed.

3. PROVIDE AUTHORITY AND RESOURCES TO ACT

Assigning responsibility for AI and innovation is insufficient if those responsible cannot engage the wider airport. They need access to operational teams, relevant data, appropriate budgets and the authority to investigate opportunities and run trials.

The implications vary by approach. An individual champion needs access across departments; a distributed network needs protected time; a dedicated function needs effective operational relationships.

In every case, appropriate governance around safety, security, data and expenditure must coexist with sufficient freedom to test ideas. For AI applications, questions of data quality, reliability and operational accountability also need consideration.

4. BUILD IMPLEMENTATION CAPABILITY

A successful AI pilot establishes that a solution may work; it does not mean the airport is ready to adopt it. Operational processes may need redesigning, systems integrating, employees training and responsibilities changing.

These activities require implementation and transformation capacity, which operational departments may not have available alongside their day-to-day responsibilities. Innovation programmes therefore need a way to manage change and transfer ownership to the teams responsible for ongoing operation.

That capability may sit within the innovation function, elsewhere in the airport or with an external partner. The important point is to plan for it from the outset, rather than treating implementation as something to resolve after a trial succeeds.

FROM AI EXPERIMENTATION TO SUSTAINED VALUE

The four approaches demonstrate that airports have choices in how they organise innovation and AI adoption. The conditions described above help explain how those arrangements can then translate activity into results.

As AI capabilities continue to develop, airports will have no shortage of potential applications to explore. Their ability to capture value will depend on identifying worthwhile opportunities, providing the organisational support to pursue them and ensuring successful solutions become part of everyday operations.

Ultimately, progress should be assessed through the operational, commercial and strategic value delivered, and the airport's ability to sustain these improvements over time.

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PDX's Concourse E. Image courtesy of Andrew Pogue.

Enhancing the customer experience

Continuous innovation is essential to stay competitive, write ACI World's Dimitri Coll, senior vice president and chief products and services officer, and Antoine Rostworowski, its senior vice president, programmes and commercial services.

Airport customer experience is the overall perception passengers form through their interactions with an airport.

It spans every touchpoint across the airport community: employees, digital platforms, mobile apps, infrastructure, services and the terminal environment.

Customer experience management is the deliberate practice of designing these interactions and improving them in response to passenger feedback and behaviour.

Its purpose is to meet or exceed expectations, increase satisfaction, strengthen loyalty, and support commercial performance.

Needs and expectations are closely linked but distinct. A need is what a passenger wants to accomplish; an expectation is how well they believe it should be met.

Needs stay fairly stable, but expectations evolve with past experiences, new technology, brand promises and service standards in other industries. Continuous innovation is therefore essential for airports to stay competitive.

DESIGNING MEANINGFUL CUSTOMER EXPERIENCES

Meaningful experiences start with listening. A Voice of the Customer programme combines structured and unstructured feedback with qualitative and quantitative research to show the journey through passengers' eyes.

ACI's Airport Service Quality surveys are a good starting point. Their benchmarks reveal satisfaction and expectations, helping airports spot gaps and set priorities.

Two approaches work well together: **Service design** improves the end-to-end experience; and **Design thinking** solves specific problems in a human-centred way.

For example, service design might examine all of wayfinding: signage, mobile information, staff assistance and announcements. Design thinking can then develop and test a fix for passengers who struggle to find their gate. Together, they improve both touchpoints and the systems behind them.

A STRUCTURED APPROACH TO INNOVATION

ACI's Airport Customer Experience Accreditation programme gives airports a framework for managing and advancing customer experience.

It covers eight domains, including Service Design and Innovation, and five maturity levels. It helps airports develop products, services and experiences that meet, and ultimately exceed, evolving passenger expectations.

Design thinking is an effective way to structure innovation. It generally has five stages:

1. **Empathise:** Understand passengers through interviews, observations, surveys and journey mapping.
2. **Define:** Identify the problem from passenger needs and pain points.
3. **Ideate:** Generate a broad range of possible solutions.
4. **Prototype:** Build simple versions of the most promising ideas.
5. **Test:** Evaluate prototypes with passengers, gather feedback and refine.

Teams may return to earlier stages as new insights or challenges emerge. For example, an airport improving security screening could start by observing passenger behaviour and identifying sources of stress or confusion.

It could then develop and test new processes, communications or signage before full implementation.

By involving passengers throughout, not just asking for feedback afterwards, airports address genuine needs rather than assumptions.

This collaborative approach encourages creativity, reduces implementation risk and makes meaningful improvements more likely.

CO-CREATING WITH THE AIRPORT COMMUNITY

At advanced accreditation levels, airports must embed service design into their processes and culture, including co-creating ideas with passengers, employees and stakeholders.

Collaborative workshops can identify opportunities, develop solutions and test prototypes. They should include multidisciplinary teams and representatives from across the airport community, not only customer-facing staff.

An annual co-creation forum, for example, could bring together passengers, employees, airlines and other stakeholders to improve the experience of selected passenger personas at specific journey stages.

The most promising concepts would then go to senior management with implementation recommendations.

Co-creation: **Generates ideas** validated by passengers and stakeholders; **Helps participants** understand each other's perspectives and priorities; **Combines diverse viewpoints** for more innovative solutions; and **Creates shared ownership** of improvements.

Juan Santamaría International Airport in San José, Costa Rica, ran a co-creation practice with more than 20 airport employees, community representatives and passengers. It focused on people with reduced mobility and families travelling with children aged ten or younger.

Using empathy mapping, journey mapping and reverse thinking, participants turned passenger needs into practical solutions. The report included two journey maps, stage-by-stage proposals and a prioritised roadmap.

By linking insights and solutions directly to executive decision-making, the airport created a clear path to implementation.

King Khalid International Airport in Riyadh held a three-day workshop with employees, university students, stakeholders and 125 passengers. It produced insights across passenger personas and showed how broad participation supports more inclusive decisions.

These examples show how design thinking yields solutions that are desirable, operationally feasible and financially viable.

THE FUTURE OF AIRPORT INNOVATION

Airport terminals and passenger processes have changed significantly over the past 25 years.

Digital boarding passes, biometrics, smartphones and real-time communication have transformed the journey, and more change is coming in both processes and terminal design.

GREATER CHOICE AND PERSONALISATION

Passenger choice began with multiple check-in options: mobile, kiosks, counters and off-airport locations. In the future, passengers will have a more personalised menu of services throughout their journey.

For checked baggage, options could include: Home collection; Delivery to a hotel or final destination; Off-airport drop-off; Permanent electronic tags; Parking-area bag drops; Premium porter services.

More choice helps airports and airlines respond to individual needs. Completing more activities before arrival can also improve efficiency, capacity and throughput without extra infrastructure.

PROCESSES ON THE MOVE

Better digital tools and detection technologies could cut queues by enabling continuous processes. Security screening, customs, immigration and other touchpoints could become faster and less intrusive.

An 80/20 operating model may emerge: most passengers get a rapid, seamless process, while staff focus on exceptions and cases needing extra help. This could improve passenger flow, operational efficiency and the overall experience.

A MORE PAPERLESS JOURNEY

The industry has already moved away from paper tickets and printed boarding passes. Next, paper baggage tags could gradually give way to electronic tags, permanent tags or other digital identification.

Passports, identity documents and boarding passes may increasingly be replaced by secure digital identities and facial biometrics, so passengers no longer present the same documents repeatedly to different organisations.

Airports must still provide human assistance and alternative processes for passengers who cannot, or prefer not to use, digital solutions.

RETHINKING THE AIRPORT TERMINAL

If more activities happen before arrival, screening is less intrusive and fewer documents need manual checks, airports can repurpose valuable terminal space.

Areas now used for queues and processing could become retail, dining, entertainment, relaxation or cultural spaces that strengthen each airport's sense of place.

CONCLUSION

The future of airport customer experience depends on pairing innovation with a deep understanding of passengers.

Biometrics, artificial intelligence and paperless processes can make journeys more seamless and personalised, but technology alone cannot deliver an exceptional experience.

It also takes customer-focused leadership, cross-functional collaboration and continuous improvement.

By listening to passengers, involving stakeholders and testing new ideas, airports can create experiences that are efficient, inclusive, human and memorable. AW



Learning **curve**

Rudy Daniello, executive vice president for airports and borders at Amadeus, considers how agentic AI is reshaping airport decision-making.

While there is growing momentum behind the use of artificial intelligence (AI) in airport technology, much of its full impact is yet to be felt.

Across the industry, pilots and trials are underway, aimed at improving day-to-day operations and long-term decision-making in complex airport environments.

My team is actively contributing to this evolution, working closely with airports and their stakeholders to deliver practical value with AI.

WHAT IS AGENTIC AI?

Agentic is the latest step in AI's development that operationalises the reasoning capabilities of Large Language Models (LLMs) through 'agents', which are small pieces of software code.

The promise of agentic AI is the ability to move beyond pattern recognition and question and answer sessions – to reason through a problem, suggest solutions, and proactively take action.

This new phase of AI moves airport operations forward. For example, an AI agent can anticipate and perceive an incoming flight disruption, reason through the various knock-on effects across stands, gates, ground handling, and the passenger flow, and then make recommendations that consider the entire picture.

If the operational team consider those recommendations to be sensible, AI agents can also act to put them into practice – for instance, by reallocating resources like check-in desks, ground operations teams and refuelling trucks.

A team of AI agents that monitor key data to continually optimise how an airport runs may sound like a futuristic concept, but this technology is advancing extremely quickly.

We are already engaging with several airports to plan how a suite of specialised AI agents can integrate with operational systems, allowing their teams to benefit from AI recommendations delivered to any team member, anywhere in the terminal, via any device.

In my opinion, this new approach for airport decision-making will become commonplace in a matter of years rather than decades.

Agentic AI is so attractive for airports because agents provide the mechanism for generative AI models to be applied to specific tasks.

For example, imagine a suite of agents – one focuses on passenger connections, another on disruptions, a third on the passenger flow, a fourth on baggage. These digital co-workers do not wait to be asked a question. They are aware of their task and continuously monitor data to identify ways their objectives can best be met.

Perhaps most excitingly, through orchestration, AI agents can work together to reach better outcomes than any single agent could alone.

For many years our industry has struggled to connect systems well-enough to provide a consolidated operational view. Even when such a view is achieved, it is difficult to react quickly and consistently in real-time to agree on the best course of action.

By sitting on top of different data feeds, representing their own specialist niche, and talking to each other, AI agents can help us solve the siloed nature of airport decision-making.

They can evaluate different operational perspectives, analyse potential impacts and generate recommendations that reflect multiple objectives across the airport ecosystem.



PREPARING THE RIGHT FOUNDATION FOR AGENTIC AI

It's important to note that one does not simply plug-in a team of AI agents and expect them to magically transform an airport's operational performance. As usual, it isn't quite that simple.

There are already many examples of enterprise agentic AI deployments failing to deliver the intended outcomes. Typically, such failures relate to a lack of data preparation.

Agentic AI works based on statistical probabilities, and like prior generations of data analysis technology, its value is directly proportional to the availability, timeliness and quality of foundational data.

That's why the main effort involved in rolling out agentic AI is actually data management. Airports must bring together their various data feeds into a consolidated foundation so it can be made available for AI.

Much of our current work with airports focuses on this important pre-requisite by equipping operations team with a Virtual Airport Operations Centre (or vAPOC).

This concept sees data from within the airport, like flight operations and passenger flow, brought together with external data feeds, like weather and flights, to provide a consolidated and trustworthy picture.

To date, the objective of this work has been accurate data visualisations that are shared amongst human stakeholders to aid operational decision-making.

Imagine an airline operations manager, an airport operations manager and the ground handling lead joining a Microsoft Teams meeting to examine a chart showing expected flight delays and forward predictions.

This same data foundation can enable a similar collaborative discussion amongst AI agents.

PREPARING FOR 'CROSS-DOMAIN' USE CASES

With AI providing the ability to assess data across domains to solve very complex problems like disruption – it's increasingly important that AI can work with data held by airlines, ground handlers and other airport stakeholders.

This requires further improvements to data infrastructure, with the ability for stakeholders to co-operate by exchanging data with one another in a well governed manner.

In the past, aviation players were relatively reluctant to exchange data in this way but agentic AI is driving a noticeable change as people realise this new technology is able to optimise entire operational processes for the benefit of passengers and every organisation in the chain.

At Amadeus we are working with airport operations stakeholders to provide a flexible data exchange infrastructure where data owners can choose to publish and license key datasets and apply governance characteristics in the process.

This work also includes a focus on the semantics of aviation. Generic AI models often lack sufficient understanding of aviation-specific terminology and workflow, such as irregular operations (IROPS) recovery, slot management, or load control.

To overcome this, we are adapting AI models using aviation-specific terminology, operational processes and historic data to ensure that AI agents have the same grasp of aviation language as experienced professionals.

AUGMENTING NOT REPLACING HUMAN JUDGMENT

The value of agentic AI is not about replacing humans, it is about helping them to achieve more by providing real-time decision support.

When an agent on the ramp queries an AI system to understand if he should remove a passenger's bag from a specific flight, the value delivered is a better and faster answer to his question.

When an AI agent in the vAPOC identifies the terminal is likely to be busier than expected, an experienced human is still required to validate that observation and to sanction the associated increase in check-in desks.

This is why every serious agentic AI deployment in aviation keeps humans in the loop.

Agents surface options and act within defined boundaries, but decisions with operational or commercial impact remain with accountable teams.



As airports move from experimentation to production deployment, success will depend on more than AI models alone. It requires trusted data, operational expertise, governance and the ability to scale innovations across complex industry ecosystems.

With our foundation as a system of record, our deep integration across the industry, and our ability to run at production scale, supported by strong governance through our AI Office and strategic partnerships, we are helping the industry embrace AI with integrity and trust.

RECOMMENDATIONS FOR GETTING STARTED

My four recommendations for getting started with AI are:

1. Focus on where agentic AI can have the greatest impact

It's now understood that AI does not come for free. The companies developing frontier models have invested huge sums in the data centre infrastructure and training required to power the models.

In the immediate term, airports need to be selective, carefully focusing on a handful of workflows where AI is expected to deliver maximum return.

In our recent report *Airlines in the Agentic Age: Use cases and ideas for getting started with AI*, Microsoft's Matt Walsh said it best: "Today, companies are excited about how many AI agents they've spun up – but very few have scaled. My advice is to focus – one agent that's scaled and delivers a tangible return is more valuable than 100 agents in pilot."

2. Understand how technology interacts

Agentic AI will unlock valuable operational, customer experience and revenue opportunities for airports and their stakeholders. However, it's important to assess whether your airport's underlying systems can support an AI use case before investing.

While airports can benefit from AI irrespective of the underlying systems they choose to run their business, it's important to identify system limitations from the outset.

Attempting to apply agentic AI to operations before an airport has created a trustworthy data foundation, for example, will lead to lower quality recommendations.

3. Build in governance by design

Unlike prior generations of enterprise IT, AI agents are probabilistic and not deterministic. While this makes it possible for them to problem solve by reasoning, it also means they can be unpredictable, prone to hallucination and error.

The task for airports is harnessing this new capability in a way that limits risk, which is where governance comes in.

It's important to consider technical, ethical, legal, and process measures for AI governance from the outset.

Striking the right balance between tech-enabled governance that draws on deterministic, rule-based systems as guardrails for AI agents, and human-in-the-loop oversight for each specific use case is critical for risk mitigation.

4. Start change management from day one

Introducing AI is likely to change the nature of multiple job roles. Without clear communication that explains the change, why it's happening, and how it can benefit employees, there's a risk of low adoption.

The current generation of AI is unlike prior technology transformations. For the first time, we can embed cognition directly into our technology systems. This new capability raises important governance questions while necessitating a different approach to IT.

Over the coming years, the job of the IT team isn't only about supporting users and managing systems. It's increasingly about consolidating data and making that data accessible and useable by AI.

If you're interested in understanding how agentic AI relates to aviation and operations, I encourage you to download *our latest report*.

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Mike Potter
Former UK Government
Chief Digital Officer

Keynote · Leading Through the AI Revolution



Jesús Caballero
Chief Executive Officer
SOF Connect

Creating Value with AI at Sofia Airport



Verena Dollberg
Program Director, Corporate Strategy & Digitalisation
Fraport AG

Reimagining Frankfurt Airport From Vision to Value



Chris Crist
Chief Information Officer
Hartsfield-Jackson Atlanta International Airport

Atlanta Airport Case Study
AI value panel



Areeba Siddiqui
Product & Innovation Lead
London Luton Airport

Airport data case study
AI value panel



Alina Henne
Innovation Manager
Stuttgart Airport

Operational value case study
Responsible AI panel



Tanya Wilson
Product Manager, Airport Operational Systems & Baggage
Dubai Airport

Scaling Airport Operations with AI



Nick Crane
Senior Management Consultant
Transport & Operations
Egremont Group

Summit chair
Building an Innovation Ecosystem



Grant Bishop
CEO and President
Silent Falcon UAS Technologies

Innovation showcase
Silent Falcon



Jamie Devlin
VP of Aviation
Ideagen Aviation

Innovation showcase
Complete Operational Visibility



Anne Carnall
Independent Airport Advisor
Lanrac Limited

Moderator · AI value and responsible deployment panels



Phil Stollery
Head of Product
Ideagen Aviation Intelligence

Operational, commercial and strategic AI value panel



Anthony Parker
Security Technology Specialist
London Gatwick Airport

Responsible and Secure AI Deployment panel



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Always innovating

We take a closer look at some of the latest accessibility innovations and passenger services initiatives at airports across the world.

DIGI YATRA TRIALS FOR INTERNATIONAL DEPARTURES AT BENGALURU KEMPEGOWDA

Bengaluru's Kempegowda International Airport (BLR) has launched trials of India's Digi Yatra initiative for international departures.

The Digi Yatra – International Passenger Trials (DY-IPT) effectively extends the seamless, face-enabled Digi Yatra experience to eligible Indian e-passport holders travelling internationally on select IndiGo and Air India flights.

Kempegowda is using SITA SmartPath for the trials which enables eligible international passengers to verify their identity once and then be recognised at terminal entry, security and boarding.

George Fanthome, chief technical officer at Bangalore International Airport Limited (BIAL), said: "At BLR, we have taken a phased approach to building a biometric-enabled travel ecosystem, with interoperability and passenger-controlled data at its core.

"Extending DigiYatra to international departures marks an important next step in this journey. Through this trial, we are bringing together digital identity and face-enabled processing to minimise repeated document checks across participating touchpoints, while assessing how this experience can be further developed and scaled for international travel.

"Collaboration with government authorities and partners including IndiGo, Air India, SITA and DigiYatra will be critical to advancing a more seamless and digitally enabled passenger journey."

AI ASSISTANT 'BABS' ON HAND TO HELP AT BHX

Birmingham Airport's AI customer assistant, BABS, is continuing to enhance the passenger experience by providing instant, around-the-clock support to travellers before and during their journey.

Developed in partnership with conversational AI specialists Hello Lamp Post, BABS has become an integral part of Birmingham Airport's customer experience strategy, helping passengers quickly access information on topics ranging from check-in and security procedures to car parking, lounges, accessibility services and terminal facilities.

Handling thousands of passenger enquiries, BABS provides immediate responses to common questions, reducing the need for customers to wait for assistance while allowing airport teams to focus on more complex enquiries and face-to-face support.

It supports passengers both in the terminal and online, giving them the information and reassurance they need in the moment.

The assistant also adapts its guidance according to where a passenger is interacting, helping ensure support is relevant whether they are planning ahead, using their own device or moving through the airport.

The AI assistant is available 24/7 and is designed to continuously evolve through the analysis of passenger interactions, helping Birmingham Airport identify trends, recurring questions and opportunities to improve the customer journey.

Now Birmingham Airport and Hello Lamp Post are exploring opportunities to further enhance the platform through greater personalisation, additional integrations with airport systems, expanded language capabilities and enhanced self-service options.

Birmingham Airport is also exploring how BABS could expand beyond passenger support to assist colleagues and the wider operation,





helping teams access timely information, improve co-ordination and support smoother day-to-day airport activity.

Stuart Haseley-Nejrup, head of customer strategy at Birmingham Airport, says: "At Birmingham Airport, we are always looking for innovative ways to improve the passenger experience.

"BABS has become an important part of how we support our customers, providing instant answers to thousands of enquiries while helping us better understand what matters most to our passengers.

"The success of BABS demonstrates how digital innovation can complement our customer service teams and help create a smoother, more informed journey through the airport.

"As we continue to develop the platform, we are excited about the opportunities to deliver even more personalised support and further enhance the experience for everyone who travels through Birmingham Airport.

NEW MULTISENSORY ROOM AT SALVADOR BAHIA

Salvador Bahia Airport in Brazil has opened its first multisensory room and launched LUMI, a programme designed to make the gateway more welcoming and accessible for all passengers.

Featuring its own airplane-themed area, the room is designed to offer an environment with controlled stimuli, predictability and resources that help regulate the sensory and emotional wellbeing of passengers with conditions such as autism, ADHD and extreme anxiety.

"The room was designed with a focus on emotional and sensory regulation, prioritising predictability regarding typical flight events and providing resources that foster a calming effect," explains Adriana Balaguer, the occupational therapist who consulted on the room's design.

"We selected materials that sink, vibrate, massage, or offer weight and compression, primarily stimulating the proprioceptive system."

Beyond sensory features, the space aims to make the airport experience more predictable and provide a place where passengers can regain their composure when faced with sensory overload.

The concept addresses not only individual wellbeing but also stress reduction for companions and others involved in the journey.

'GATE OF THE FUTURE' UNVEILED AT FRANKFURT AIRPORT

Lufthansa and Fraport have inaugurated what they are calling the 'Gate of the Future' in Frankfurt Airport's Terminal 1.

They note that Gate A16 is a complete redesign of a typical departure gate and features lounge-style furniture and flexible working areas, large monitors providing live updates on departing flights, and staff on hand to proactively assist passengers.

The joint initiative is in line with Lufthansa and Fraport's efforts to enhance customer service by providing faster and smoother boarding and a more pleasant travel experience for departing passengers.

"The future of travel is emerging not in the laboratory but in actual operation," said Dietmar Focke, Fraport AG's chief operating officer.

"Together with Lufthansa, we're demonstrating how a strong partnership can generate specific innovations that noticeably enhance the travel experience.

"What we're testing and developing here together has a clear goal: greater comfort and convenience for passengers, optimised processes and an even stronger competitive position for Frankfurt as an aviation hub."

Lufthansa and Fraport are using Gate A16 to test new services and identify the ones that especially delight customers. They point out that this information is important for deciding which elements of the new concept can also be applied at other gates and elsewhere.





Francesco Sciortino, board member of Lufthansa Airlines and hub manager at Frankfurt, said: “We’re committed to ensuring a premium passenger experience, not only in the air but also on the ground – that too is what Lufthansa stands for.

“At Gate A16, our passengers can see how future-proof processes ensure a more pleasant and efficient start to their journey.

“The ‘Gate of the Future’ is yet another milestone on our shared journey with Fraport. Frankfurt is already Europe’s best-connected hub airport – and we want to continue developing together.”

GETTING PERSONAL AT SYDNEY AIRPORT

Sydney Airport has launched Hosts, a new personalised service designed to support travellers through Sydney Airport's T1 international terminal.

Available to all international passengers, Hosts is a concierge-style service designed to deliver a seamless airport experience across arrivals, departures and transfers.

For departing passengers, a dedicated host provides end-to-end assistance from a dedicated meeting point, through check-in, security screening, border processing and onwards to the lounge or departure gate.

For arriving passengers, travellers are met at the arrivals gate, guided through arrivals and border formalities, receive support with baggage claim and are escorted to their preferred onward transport, helping reduce stress and simplify every stage of the airport journey.

Sydney Airport’s group executive for commercial, Mark Zaouk, enthuses: "We're focused on making every journey through Sydney Airport as smooth and stress-free as possible.

“We know there’s growing demand for airport services that provide additional support, comfort and convenience, particularly for passengers who may be unfamiliar with the airport, travelling with family, short on time, or simply looking for greater ease at every stage of their journey.

"The launch follows the recent introduction of Fast Track and continues our focus on giving travellers more choice, greater convenience and a smoother experience through the Australia's busiest international gateway."

EXPANDING DXB’S ACCESSIBILITY CAPABILITIES

Air services provider dnata is expanding its accessibility capabilities at Dubai International airport (DXB) with new mobility equipment, enhanced frontline support and emerging assistive technology, strengthening the airport journey for customers with diverse accessibility needs.

The enhancements include upgraded ambulifts, customised accessibility buggies and improved sets of battery-operated wheelchairs. It is also trialling autonomous wheelchair technology as it explores how emerging mobility solutions could complement existing assistance services.

“Dubai’s ambition is to be a city where everyone can participate fully, and aviation has an important role to play in making that a reality,” says dnata’s divisional senior vice president for UAE airport operations, Jaffar Dawood.

“At dnata, we are supporting that vision by investing in the people, equipment and technology that make airport journeys more accessible, while working closely with the wider airport community to deliver a more equitable and inclusive travel experience.”

AUTONOMOUS WHEELCHAIRS AT CHANGI AIRPORT

Singapore in partnership with ground handling partner SATS has launched the first phase of its deployment of autonomous wheelchairs.

The autonomous wheelchairs, which are managed by SATS, enable passengers with reduced mobility (PRM) to move through the terminals more independently, reducing reliance on one-to-one staff assistance.





Demand for special assistance services is expected to increase with an ageing population profile and as air travel continues to grow.

Changi Airport recorded a 20% increase in requests for wheelchair assistance between 2023 and 2025, reflecting the growing need for mobility support among passengers.

CAG notes that meeting this growing demand with traditional wheelchair services would require significant manpower and co-ordination across multiple airport touchpoints.

More than 13,000 passengers have used the autonomous wheelchairs since trials began in Changi's Terminal 3 in March 2025.

Damon Wong, CAG's senior vice president for airport operations planning, enthused: "For those with reduced mobility, navigating a large airport can be challenging.

"The autonomous wheelchairs offer these passengers greater independence and convenience, while enabling frontline staff to provide more dedicated care to those who require higher levels of need."

CATERING TO ALL AT WESTERN SYDNEY INTERNATIONAL AIRPORT

Western Sydney International Airport (WSI) is determined to be one of the most accessible and all-inclusive gateways on the planet.

In line with this philosophy, it has announced its accessibility and inclusion offerings, integrated into the infrastructure and customer experience design from the outset as Australia's first major greenfield airport in more than 50 years.

WSI's state-of-the-art terminal includes sensory spaces, multi-faith prayer and quiet rooms, hearing loop technology, pet relief areas, accessible family rooms, support areas for people with reduced mobility, and accessible wayfinding throughout the airport.

WSI CEO, Simon Hickey, says: "We are proud to deliver spaces, technology and nation-leading facilities throughout our airport that are designed to make the travel experience less stressful, more accessible, and a dignified experience for people of many abilities, beliefs and preferences.

"The WSI terminal has been designed around a digitally enabled passenger experience that caters to different communication needs, with information available through multiple formats including hearing loop technology, terminal displays and digital platforms.

"These facilities and technologies are designed to enable more members of the community to travel comfortably and confidently through the airport."

ROBOTIC PARKING AT GATWICK AIRPORT

Launched earlier this year in partnership with Stanley Robotics, Gatwick Airport's robot valet parking service has proved popular with motorists in its first three months of operation.

At the time of its launch, Stanley Robotics stated that the first robot valet service at a UK airport meant the end to searching for a space in packed car parks.

Building on the company's highly acclaimed service at Lyon Airport, the UK launch is arguably another major leap toward the future of robot-powered parking, setting a new standard for the industry.

Speaking this summer, Oli Bedford, head of airport access, marketing and commercial products at London Gatwick, said: "This is a real game changer for our passengers.

"It's quick, easy and completely hassle-free – and you even get to keep your keys, giving extra peace of mind while you're enjoying your holiday."

AW



Preparing for take-off

Joe Bates reports on the ups and downs of the Advanced Air Mobility market as the world awaits the launch of the first commercial services by electric vertical take-off and landing (eVTOL) aircraft.

Perhaps the best way to show how exciting and volatile the Advanced Air Mobility (AAM) market is, would be to note that since the topic was discussed at Airports Innovate in Rome in November 2024, we have seen regulatory certification for the world's first purpose built commercial vertiport and lost one, and so nearly two, of the biggest manufacturers of eVTOLs.

Regulatory certification for Skyports Infrastructure's VDX vertiport adjacent to Dubai International Airport is, of course, a huge positive forward step for the adoption of eVTOLs.

And it could potentially be joined by others in Brazil, Italy, the US, France, Spain and elsewhere over the next 18 months.

But on the downside, the demise of European eVTOL company Lilium, Airbus' decision to pause its eVTOL development programme, and Volocopter's insolvency before it was saved by China's Wanfeng Auto Holdings Group, have dealt a significant blow to Europe's ambitions of launching the first commercial 'flying taxi' services.

European woes mean that the US now arguably leads the way in the development of eVTOLs due to the progress BETA Technologies, Archer Aviation and Joby Aviation have made this year.

Indeed, Sean Duffy, recently became the first US Transportation Secretary in history to fly in an eVTOL.

Duffy's historic flight – which marked an important milestone in the development of these next generation aircraft – took place at BETA Technologies Inc's headquarters in Vermont.

And in a bid to ensure American innovation leads the way, the US has introduced an eVTOL Integration Pilot Program (eIPP) to begin testing advanced air mobility vehicles and their real-world applications out in the field.

The eight selected projects span 26 states and partner with leading aircraft manufacturers, operators, and state partners.

"This is the kind of innovation I love to see: technology that's going to fundamentally improve how people and products move," stated Duffy.

"BETA Technologies is one of many great American companies making sure the United States leads the way in this exciting technology. From emergency organ transplants to regional air travel, these next generation aircraft have so many revolutionary applications.

"The future of flight is coming. The Trump Administration will continue to do our part to support the safe integration of these innovations into our airspace."

BETA Technologies has completed 14 eVTOL flights across 700 miles in Florida that included routes from St Pete-Clearwater International Airport (PIE) and Albert Whitted Airport (SPG) to Tampa Internatioal Airport (TPA).

In addition Joby Aviation recently conducted a week-long series of piloted flights across Florida with its eVTOLs also touching down at Orlando International Airport (MCO) as well as SPG and TPA.

Florida is one of eight states selected for the federal eIPP announced by the US Department of Transportation in March.

The project is expected to test potential uses including passenger transportation, cargo delivery, automation and medical response.



Joby's eVTOL uses electric propulsion and six tilting propellers and is designed to carry a pilot and four passengers at speeds of up to 200mph.

Finally, on October 30, Boeing subsidiary Wisk Aero announced the completion and operational launch of its new vertiport at Hollister Municipal Airport (HLI) in California.

The 100-foot by 100-foot vertiport will serve as a dedicated testbed for terminal area procedures, precision landing evaluation, and approach and departure profile validation.

DUBAI AHEAD OF THE GAME WITH ITS VERTIPORT

As we reported earlier this year, Dubai achieved a major AAM milestone with regulatory certification for the world's first purpose-built commercial vertiport.

The green light from Dubai's General Civil Aviation Authority (GCAA) for Skyports Infrastructure's VDX vertiport next to Dubai International Airport (DXB) paves the way for the future commencement of commercial flying taxi services in the emirate.

His Excellency, Saif Mohammed Al Suwaidi, director general of the GCAA, said: "The certification is a historic achievement for the UAE and a defining moment for the future of aviation.

"It reflects the vision of our leadership, the maturity of our regulatory system and our national capability to enable innovation while maintaining the highest levels of safety.

"The UAE is not only preparing for the future of aviation; it is actively shaping it and establishing new international benchmarks for Advanced Air Mobility."

VDX will serve as the first and primary hub within Dubai's planned Air Taxi Network, with three additional vertiports currently under development.

EVTOL DEVELOPMENT IN ITALY

Vertiport developer UrbanV and prospective eVTOL aircraft operator Future Flight Global (FFG) have entered into a landmark agreement to develop and deploy advanced air mobility (AAM) services, beginning in Rome and expanding to global markets.

Under the terms of their agreement, they will work together on establishing vertiport and eVTOL services at Rome Fiumicino as well as at Bologna and Venice airports.

Carlo Tursi, CEO of UrbanV, stated: "We are thrilled to collaborate with FFG – a global pioneer in AAM operations. Their leadership, vision, and vast operational experience with conventional aircraft make them an ideal partner for us.

"Our collaboration combines deep infrastructure expertise with cutting-edge aviation operations and technology to create a scalable and sustainable air mobility ecosystem."

At Airports Innovate in 2023, Aeroporti di Roma's chief aviation officer, Ivan Bassato, outlined ADR's plans and the bigger global picture for AAM based on UrbanV projections and global projects in Asia, Europe, the Middle East and North and South America.

ADR and UrbanV's AAM efforts in Rome were certainly boosted by the October 29, 2026, announcement that Archer and ITA Airways had signed an agreement to develop an all-electric air taxi network across Italy.

Their plans include Rome where they believe eVTOL services could reduce the journey between FCO and the city centre to less than 10 minutes.

The partnership will use Archer's Midnight electric vertical take-off and landing (eVTOL) aircraft with the partners targeting journeys of 10 to 20 minutes that would otherwise take 60 to 90 minutes by car.

ITA Airways, Italy's flag carrier and a member of the Lufthansa Group, serves more than 70 destinations worldwide and is part of the Star Alliance network.

Airline CEO and general manager, Joerg Eberhart, said: "ITA Airways aims to play a pioneering role in advanced air mobility, exploring innovative solutions and collaborations that can strengthen connectivity and deliver tangible benefits for passengers.

"This agreement with Archer represents an important step in assessing how electric air taxi services could complement our network and enhance connections between airports, city centres and other strategic destinations."

AW





The intelligent **terminal**

Operator, New Terminal One, is confident that visitors will experience a world-class journey at JFK's new state-of-the-art passenger facility when it opens in the first quarter of 2027.

When JFK's New Terminal One opens, passengers will encounter an airport experience designed to feel less like a series of disconnected checkpoints and more like a seamless, intelligent journey.

From check-in and bag drop to boarding, baggage handling and onward ground transportation, technology will help make travel simpler, more accessible and more responsive, often working quietly in the background.

"At New Terminal One, we're investing in technology that transforms data into action and complexity into simplicity," enthused Sjoerd Blüm, chief innovation and transformation officer at the New Terminal One.

"By integrating systems across the terminal and airfield, we can anticipate challenges, optimise operations in real time and create a smoother, more reliable experience for both airlines and guests."

The New Terminal One is being built as a digitally enabled gateway for more than 23 million passengers annually at full completion.

Its technology strategy brings together interconnected systems for passenger processing, baggage, security, building operations and airside activity. The objective is straightforward: give travellers more control and clearer information while giving airlines and terminal teams the intelligence to anticipate issues, manage resources and keep the journey moving.

"Technology is essential to operational excellence – and to deliver an extraordinary guest experience," notes said Marisa Von Wieding, vice president of operations at the New Terminal One.

"At New Terminal One, we are integrating technology and operations from the ground up to create a world-class gateway that meets the expectations of today's travellers while remaining flexible enough to evolve with the needs of tomorrow."

This approach is supported by a group of technology and operations partners whose solutions are behind the guest-facing experience and back-end terminal infrastructure: SITA, Schneider Electric, Tata Consultancy Services, ADB SAFEGATE and Vanderlande.

A PASSENGER JOURNEY BUILT AROUND CHOICE

For passengers, the most immediate difference may be the amount of choice available at the start of the journey.

SITA is helping orchestrate the terminal's connected technology environment so systems from different suppliers can exchange information and function as one integrated ecosystem.

That integration will support a broad range of self-service and biometric capabilities.

The terminal is planned to include 126 biometric self-service check-in kiosks and 120 biometric hybrid bag-drop stations, with biometric capability extending across multiple stages of the passenger journey, including pre-security and boarding gates.

The hybrid bag-drop stations can operate in either self-service or agent-assisted mode. That flexibility allows travellers who want a quick, independent process to use self-service while preserving an assisted option for those who prefer it or need additional support.

It also helps airlines adjust their operations as passenger volumes and staffing needs change throughout the day.





Accessibility has been embedded into this technology design. The bag-drop stations will be American with Disabilities Act (ADA) compliant for passengers and airline employees, including wheelchair users.

Sixteen ADA-compliant repack counters will complement the check-in kiosks and bag-drop equipment, helping ensure that the convenience of self-service is available to a broader range of travellers.

"The real innovation at New Terminal One is not any single kiosk, biometric gate, or digital display. It is how technology, infrastructure and operational systems have been designed to work together from the outset," says Anthony Natale, vice president, Americas, SITA.

"For passengers, that means more choice, greater accessibility and a journey that feels simpler, even though the technology behind it is highly complex.

"Ultimately, the measure of great airport technology is not how much of it people notice, but how seamlessly the airport works around them."

MORE TIME IN THE TERMINAL, LESS TIME MANAGING BAGS

For many travellers, baggage is one of the most consequential parts of the airport experience. New Terminal One's baggage systems are being designed to reduce friction before departure and increase confidence that bags are accurately tracked and matched through the journey.

Vanderlande, an airport automation and baggage-handling systems provider, will deploy its Individual Carrier System alongside ADAPTO, its Early Bag Storage system.

Together, the technologies are designed to give passengers the ability to check bags earlier, freeing up time to enjoy the terminal's retail, hospitality and dining offerings rather than remaining tied to the check-in process.

"Partnering with JFK on New Terminal One has been a highlight for us as this is an airport terminal that's truly investing in a smarter, more passenger-centric experience," comments Jonah Thompson, senior account executive at Vanderlande.

AN INTELLIGENT TERMINAL BEHIND THE SCENES

A smooth passenger experience depends on much more than visible devices. It requires the terminal's buildings, power systems, digital networks, security infrastructure and operational platforms to work in concert.

Schneider Electric is supporting that foundation through integrated technologies spanning building management, power, security and digital infrastructure.

Tata Consultancy Services (TCS), a global IT services, consulting and business solutions company, will also add a layer of intelligence as the terminal's technology and innovation partner.

Drawing from its track record of managing complex systems and creating highly personalised and engaging customer experiences, TCS will help the New Terminal One reimagine the future of airports as intelligent consumer hubs where travel, retail, hospitality and digital engagement converge.

Amit Bajaj, president for North America at Tata Consultancy Services, says: "AI will facilitate a seamless and reliable passenger experience and help evolve New Terminal One into a state-of-the-art experiential zone."

A CONNECTED GATEWAY FOR THE FUTURE

Taken together, these systems are designed to make the complexity of a major international airport feel more intuitive.

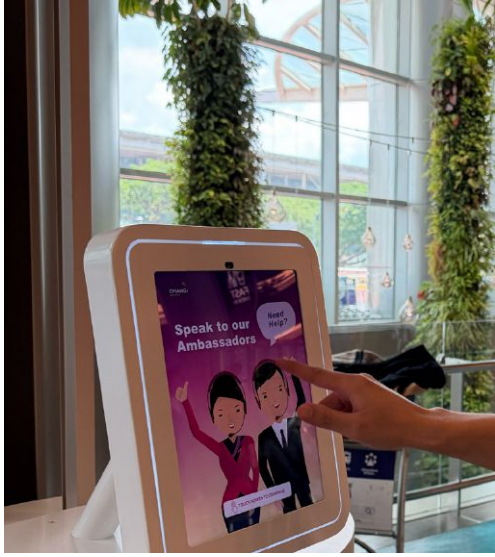
A passenger may notice the convenience of a biometric check-in kiosk, the flexibility of an accessible bag-drop station, an informative digital display or the ability to check a bag early.

But much of the innovation will remain invisible: connected systems exchanging information, with operational teams using real-time data to keep the terminal running efficiently.

That is the New Terminal One's underlying promise. The terminal is being designed not simply as a place to process passengers, but as one where technology gives travellers more time, more confidence, and more control over their journey.

AW





Question time

Malte Kosub, co-founder and CEO of Parloa, considers the growing use of voice AI agents as part of the digital transformation of airports.

Global airports are undergoing rapid digital transformation. With rising passenger volumes, labour shortages, infrastructure constraints and increased connectivity, the focus of digital transformation is shifting.

Airport leaders are moving beyond simply identifying promising technologies and pilots, to focus on how technologies can be successfully integrated and scaled within complex operations and existing systems – whether that's to improve operational efficiency and decision-making or enhance customer experiences.

Heathrow's extended partnership with Adobe, announced recently, is a good example: a new flagship website for the 50 million-plus people who visit it each year, more personalised content, and tools to track how the airport's information is cited in AI platforms such as ChatGPT, Gemini, Copilot and Perplexity.

The logic is sound. Adobe's own research, featured in the announcement, suggests one in four consumers now use AI as their primary source of information when making travel decisions, so it makes sense to invest where the demand is.

But that is just the first leg of the journey. The second begins when a passenger needs a live answer, such as a changed gate or a delayed connection, and picks up the phone.

THE CALL STILL HAPPENS

Websites and AI search work well for passengers who have time to look. But it's as important to recognise those who do not, or who may not be as familiar with the technology.

They want to pick up the phone when something has changed, when they are short of time, or when they aren't sure the website has a real-time answer for their situation. Gate changes, delayed connections, missing luggage and accessibility questions all tend to arrive at once, and these are the moments when airport teams become most stretched.

Yet the phone is where modernisation has often gone least far. Much of it still runs on legacy telephony infrastructure, and even upgraded systems tend to keep the menus and queues they were originally built around.

Meanwhile, calls arrive in real time and in many languages, and demand swings with weather, strikes and holidays. That's not isolated to aviation, it's a cross-industry pattern.

In Parloa's *State of Agentic CX* research, which looked at more than 5,000 phone contacts across enterprises in many sectors, 96% were contained by legacy interactive voice response (IVR) systems and only 1% showed capacity to communicate with personal agents, a trending tech among consumers recently amplified by Meta, OpenAI and other frontier model players.

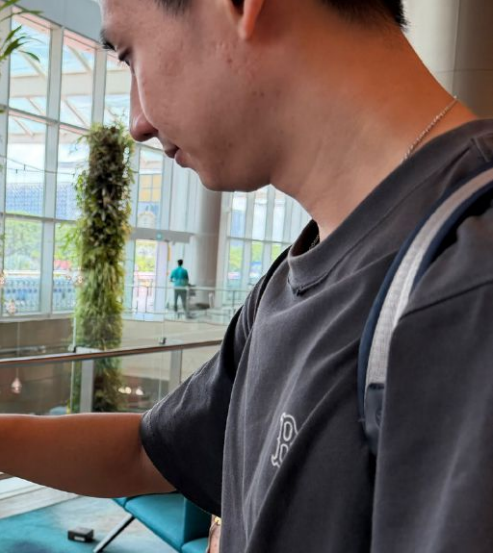
This is where agentic AI changes the picture. A voice AI agent can understand what a passenger is asking in their own words, can answer in their language at any hour, draw on live operational data and take many calls at once, so a peak period or a disruption no longer has to mean a longer queue.

It can also free up airport teams to focus on the passengers that most require a person.

Of course, that promise only holds if the agent is built around what passengers truly need. Four tests separate an agent that helps from one that adds frustration.

FOUR TESTS FOR AN AIRPORT VOICE AGENT

– Live data: A passenger asking about a gate or a departure time needs the current answer from the operational systems, not a static and likely





outdated FAQ. A confident wrong answer about a gate is worse than no answer at all.

– Multilingual proficiency: Airports need to serve passengers in the languages they speak, not only the language of the operator. That takes more than a translation layer added on top of a system designed in one language.

The agent needs to understand each language natively, including accents, regional phrasing and the way people speak when they are stressed or in a hurry.

Real depth in the language passengers use matters more than a long list handled superficially.

– Always-on: Airline operations don't stop at night, and neither do questions nor the need for support. Demand also spikes in holiday peaks and during disruption, when staffing is least able to flex.

– The right measurement: The easiest number to report is how many calls were kept away from human staff. That is more commonly known as deflection, and it says nothing about whether the passenger got what they needed.

The better measurement is resolution: did the passenger get an answer? Did they have to call back? Was it an escalation enquiry where a person was needed? Did the handover carry the context? At Parloa, we put it simply: contained is not the same as resolved.

WORKING WITH BERLIN BRANDENBURG (BER)

Berlin Brandenburg International Airport (BER) recorded 25.5 million passengers in 2024 and has invested significantly in digital innovation, increasingly in customer communication.

In busy periods such as the holiday season, BER receives a high volume of calls from passengers needing accurate information around the clock, which it could offer only with limited phone availability.

It wanted shorter waits, fast and consistent answers that reflected language nuances, better service and lower costs.

After comparing several providers, BER chose Parloa for its performance in demanding enterprise environments, scalability, voice-first approach, and security and compliance standards. KINOVA, Parloa's implementation partner for BER, ran the project end-to-end.

KINOVA structured BER's knowledge base so the agent covered the most common passenger questions around areas including public transport links, parking, lost property and other services as well as flights.

It integrated BER's flight information systems, so answers on departures, arrivals, gates and check-in were live and current. The agent works from prompts, not a fixed dialogue tree, so it can handle the many ways passengers phrase a question, in four different languages.

Testing was part of KINOVA's scope, to simulate real-world scenarios and accuracy around common passenger enquiries.

Passenger experience, IT, facility management, data protection, communications, legal and security all worked on the project and had an important role to play.

The agent went live in just under six weeks and has run since February 2025. Because it works from prompts, it needs continuous monitoring and refining as flights, rules and services change, which is why Parloa's platform covers the full lifecycle from design to optimisation.

BER's agent now answers passenger calls around the clock in German, English, Polish and Spanish, with no phone wait times, and is built to take thousands of calls at once.

The airport reports 85% customer satisfaction, and the initiative won Most Innovative Airport Initiative at the Future Travel Experience Awards in 2025.

A FOCUS ON THE WHOLE JOURNEY, NOT JUST THE FIRST LEG

Discovery and the phone line should not be separate projects. A passenger might ask an AI assistant about a gate, read the website, then call. If the three disagree, the passenger trusts none of them.

It is therefore vital to treat flight data, service information and escalation rules as one governed source that every channel can draw on.

Heathrow's move recognises that passengers now ask AI first. The next step in airport digital transformation is making sure the answer is just as good when they pick up the phone. AW



SFO's T1 sensory room. Image courtesy of Jason O'Rear/Gensler.

Family matters

When it comes to accommodating families, airports need more than dedicated lanes at security, they need to rethink the whole line, write Gensler's Andy Huang and Terence Young.

Turns out, they hadn't managed their liquids. Questions about baby formula ensued, a supervisor called in, and a slow negotiation followed. Twenty-five people stood behind them, frustration rising, listening to a TSA officer deadpan that this was why you should arrive two hours early.

In the same line: an elderly passenger in a wheelchair, needing to reach the gate ahead of boarding to get help getting on the plane. Now also running late.

Two travellers with almost nothing in common, run aground by the same fifteen feet of airport.

We think there was a level of detail missing when the FAA earmarked funding this August for "family-friendly features" in terminals.

We design airports for a living, but that's not where this piece comes from. It comes from being adult sons watching our parents find the airport increasingly intimidating, and from being fathers pushing a stroller through a security line making sure we didn't lose the blankie.

Between us, in the past year alone we've experienced multi-generational travel through various perspectives: a nonagenarian working to maintain her independence, strollers, toddlers and breastfeeding partners, and a neurodivergent teenager. None of what follows is theoretical.

Start with security. That's where family stress peaks, and in our experience, it's had the least design attention of any part of the journey.

The instinct is always a family lane with its own queue and signage. But we'd argue against it. The families who've done this before and have it down pat don't want to be pulled aside and treated like novices; being sorted into the slow line for having a kid is its own small insult.

What helps is space before the checkpoint even opens up; room to repack a bag, refold a stroller, figure out what's allowed before you're the one holding up twenty-five strangers.

We built that flexibility into a project in San Diego (SAN), and the result is a space that can flex to handle a passenger surge at security or simply offer families a moment of composure pre-security. That's a funnel redesign. A family lane is a Band-Aid.

Then there's everyone travelling with elders. Terence's mother turned ninety this year. She's sharp; she still dances and lives independently; but she's grown too anxious to fly alone. This summer, his sister drove six hours each way to then travel with her rather than let her fly alone.

There's real assistance on paper: wheelchair service by law, meet-and-assist programmes at some airports. What's missing is the senior equivalent of an unaccompanied minor: one person handing you to the next, guaranteed, door-to-door.



SAN. Image, Ema Peter courtesy of Gensler.

And pacing isn't one-size-fits-all even inside a single family. A grandparent with a mobility aid and a neurodivergent teenager who needs a low-stimulation, predictable route through the terminal aren't equally served by the same design move.

One needs the shortest path to the gate, and the other needs to see it coming. Too many terminals offer one route through the airport and call it accessible, and according to code, it is. But compliant and comfortable aren't the same thing.

The same logic applies for where travellers sit and how they find out what's happening. Most holdrooms offer one kind of seat: bolted in a row, facing the gate. But this can be a poor option for someone managing a family, or people with mobility challenges.

Give people a real choice instead. Seating close to the gate for whoever wants or needs it, and seating and desks further back for the parent taking a work call or the grandparent who wants somewhere quieter without losing track of the flight.

Pair that with a notification system that doesn't require standing at the gate to stay informed: an alert to your phone in large text, translated automatically, simple enough graphically that any traveller can act on it.

Calm belongs in that same logic; designed across the entire terminal, not stored in one room. And calm isn't only quiet. For a neurodivergent traveller, calm can be visual as much as acoustic.

For an older passenger, it can just mean not being confused, like signage and sightlines that don't require guessing. That sits in real tension with an airport's other job, which is to get people to notice the retail and feel like the trip itself is exciting.

We don't think that's a contradiction to apologise for. It's the funnel and the pacing argument, just applied to the senses: a terminal doesn't need one mood any more than it needs one route.

It can be loud and bright by the shops and genuinely calm fifty feet away. Zone for both with intentionality.

We didn't land on that by comparing airports to other airports. We got there talking to colleagues who spend their careers designing cities, not terminals because an airport is just a city everyone visits for four hours.

The best airports we've worked on already borrow those instincts: parks, not just concourses; culture and real food, not just grab and go; daylight and greenery instead of another gate lounge.

That's the model for family-friendly design too: liveability, the sum of a hundred small decisions about how people of every age and ability move through a shared space.

In the US, the FAA's investment is going to build something. The only question is whether it builds features, or a system that holds under the weight of how families, of every size, age, and need, really move. AW



PIT. Image Ema Peter courtesy of Gensler.



Cognitive load!

Neuroscience and AI consultant, Professor Alexandre Rodrigues, explains that the industry needs to get smarter at making choices easier for passengers to enhance the airport experience.

What if one of the biggest opportunities to improve airport performance is not hidden in new infrastructure, but inside the passenger's brain?

Every queue, sign, gate change, security checkpoint and digital interface competes for a limited resource: human attention.

This article explores how stress, cognitive load, uncertainty and information overload influence passenger decisions – and how neuroscience, behavioural science and artificial intelligence can help airports design journeys that are clearer, safer and easier to navigate.

The future airport will not only need smarter technology. It will need a better understanding of the people using it.

A TYPICAL AIRPORT SCENARIO

A gate changes. Security lines lengthen. A family is unsure whether it has time to eat. A first-time traveller scans three digital screens while listening to announcements in an unfamiliar language.

Nothing here may qualify as an operational failure. Yet, cognitively, the system is already under pressure.

Airports are not simply transportation infrastructure. They are high-density decision environments in which passengers must continuously filter information, estimate time, navigate unfamiliar spaces, protect documents and belongings, comply with security procedures, and respond to unexpected changes.

The more demanding that environment becomes, the more passenger experience depends on something airport management cannot see directly – the limited capacity of human attention.

The strategic question, therefore, is not only 'how efficiently are we moving people?', but also 'how much cognitive work are we requiring from them?'

STRESS CHANGES THE WAY PASSENGERS DECIDE

Acute stress does more than make people feel uncomfortable. It can affect processes involved in attention, valuation, learning and decision-making.

A 2024 systematic review examining 44 studies found that acute stress can impair several processes required for decision-making, although the magnitude and direction of the effects depend on factors such as the task, timing and individual characteristics.

Research on anxiety and attentional control likewise indicates that cognitive efficiency can decline when people must suppress distractions or rapidly redirect attention. Now place that brain inside an airport.

A passenger worried about missing a flight may simultaneously be monitoring everything from boarding time, security lines, children and baggage to announcements over the public address system.

Adding more information does not necessarily provide more clarity. Sometimes it simply creates another competitor for attention.

PRACTICAL APPLICATION 1

identify the terminal's high-stress decision points – security entry, immigration, transfers, gate changes and disruption areas.

At each one, audit what passengers must notice, understand and decide within the next 30 to 60 seconds. Anything competing with that immediate objective deserves scrutiny.



WAYFINDING IS A COGNITIVE-LOAD PROBLEM

Airport signage is normally evaluated as a visual communication system. It should also be evaluated as a decision system.

Recent airport research using eye tracking found that higher information density and text-only formats increased cognitive load and reduced decision confidence.

Combining text and graphical information improved performance, particularly when participants were under time pressure.

This has a direct operational implication: The objective is not to provide passengers with the maximum amount of information, rather it is to provide the right information, at the right moment, when a decision must be made.

Airport wayfinding research has long demonstrated that spatial configuration, visibility and the number and positioning of decision points influence passenger orientation.

PRACTICAL APPLICATION 2

Walk critical passenger routes using a one-decision-at-a-time test. At every junction ask:

– What does the passenger need to decide now?
– Is the correct next action immediately visible?
– What competing stimuli are fighting for attention?
– Would someone unfamiliar with the airport understand the message?

Testing with first-time travellers, different languages and realistic time pressure can expose problems that conventional design reviews miss.

QUEUES ARE NOT ONLY ABOUT MINUTES

Airport operations naturally measure queues in objective time. Passengers experience them in psychological time.

Waiting research shows that service experiences are affected not only by duration, but also by expectations, information, perceived control and uncertainty.

A 2026 review argues that waiting should be understood not merely as a temporal phenomenon, but as an experiential and relational one.

Consider two queues. One lasts ten minutes and gives passengers a reliable estimate of progress. The other lasts eight minutes, but passengers do not know how long it will take, whether they selected the correct line or whether they will reach the gate on time.

Operationally, the second queue is shorter. Cognitively, it may be worse. This does not mean perception should replace throughput. It means throughput and perceived control should be managed together.

PRACTICAL APPLICATION 3

Where waiting is unavoidable, communicate three things clearly – 'How long is the expected wait time'; 'What happens next' and 'What passengers should do if circumstances change?'

When estimates change, update them. Reducing uncertainty can be as important as communicating the delay itself.

AI SHOULD REDUCE UNCERTAINTY, NOT MERELY AUTOMATE

Artificial intelligence is already delivering value in airports through passenger-flow prediction, gate and stand optimisation, predictive maintenance and commercial decision-making.

Airport World itself has highlighted the transition from reactive operations toward predictive planning supported by AI and data.

But from a human-factors perspective, an even more interesting question emerges. Can AI detect cognitive friction before passengers experience it?

Imagine predictive systems identifying a security bottleneck before queues become critical.

A gate change could automatically trigger co-ordinated updates across displays, mobile channels and wayfinding systems.



Multilingual AI assistants could answer context-specific questions without forcing travellers to navigate multiple menus or search through irrelevant information.

Yet automation can also create digital cognitive load when interfaces are inconsistent, explanations are poor or passengers do not understand what the technology expects from them.

IATA's 2025 Global Passenger Survey, based on more than 10,000 respondents from over 200 countries, found that 78% wanted a smartphone combining functions such as digital wallet, passport and loyalty credentials, while 50% had already used biometrics somewhere in their airport journey.

At the same time, privacy, cybersecurity and trust remain important adoption considerations.

PRACTICAL APPLICATION 4

Evaluate every passenger-facing AI system against three questions:
– Does it reduce the number of decisions?
– Does it reduce uncertainty?
– Does the passenger immediately understand what to do next?

If the answer is no, technology may have an adverse effect by adding digital friction instead of removing it.

DESIGNING THE AIRPORT FOR OUR BRAINS

The next generation of passenger experience will not be created by one technology. It will emerge from better orchestration of infrastructure, information, people and intelligent systems.

Five principles can turn this into management practice:

1. **Map cognitive load, not only passenger flow.** Identify locations where passengers must process multiple signals or decisions simultaneously.
2. **Design for stressed attention.** Prioritise critical information and reduce competing stimuli at high-consequence decision points.
3. **Make uncertainty manageable.** Communicate queue duration, gate status, transfer requirements and disruptions consistently.
4. **Preserve human escalation.** Automation should manage routine complexity while making trained employees easier to reach when situations become ambiguous, exceptional or emotionally charged.
5. **Measure behavioural outcomes.** Add wrong turns, repeated questions, abandoned queues, re-screening, assistance requests and other indicators of friction to conventional satisfaction and throughput metrics.

The future airport will unquestionably become more digital, predictive and automated.

But every new technology will still interact with a biological system that evolved long before airports existed: the human brain.

That changes the management question. Passenger experience is not simply what an airport provides. It is what a passenger is cognitively able to perceive, interpret and act upon under real-world conditions.

Airports that begin designing around that reality can potentially improve more than satisfaction.

They can create environments that support better flow, clearer decisions, stronger trust, safer behaviour and greater operational resilience.

The airport of the future should therefore not merely become smarter. It should make it easier for people to think. Remember, only knowledge sets us free! AW

About the author

Professor Alexandre Rodrigues is a consultant in the fields of neuroscience and artificial intelligence applied to business. His work explores how cognitive processes, behavioural science and emerging technologies can improve organisational performance, human-centred management and complex decision environments.

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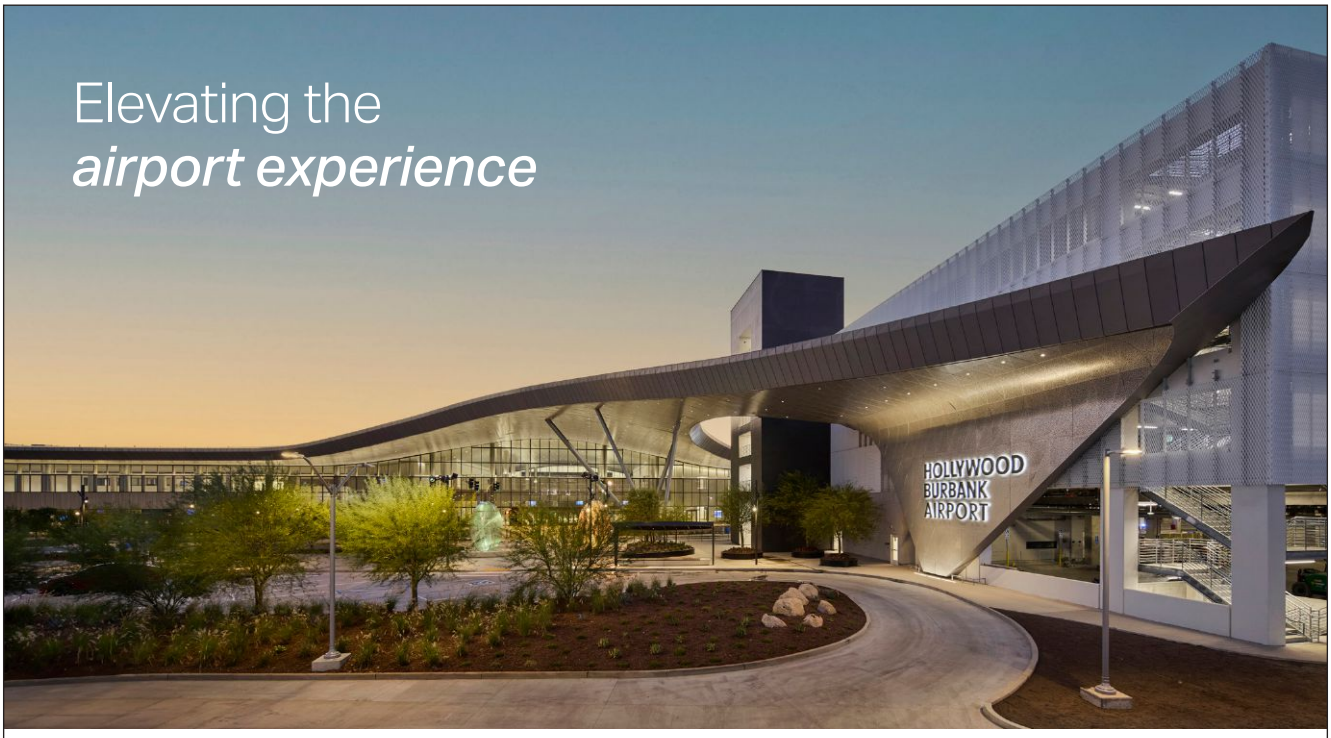
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Audit readiness

Is regulatory technology (RegTech) the next big thing for airport investment? Clinton Cardozo, CEO and co-founder of OneReg, provides his thoughts.

Airports are entering a period of change and regulatory acceleration. New reporting requirements, tightening safety oversight and the rapid rise of artificial intelligence are converging on a part of the business that has, for years, run on legacy infrastructure: compliance.

For airport operators, the question is no longer whether regulatory demands will keep growing. It is whether the systems used to manage them can keep up.

The direction of travel is clear. Under ICAO's Universal Safety Oversight Audit Programme, more than 3,000 audits have been carried out worldwide since 2008, averaging around 270 a year, with an average of 14 findings per audit report as of the third quarter of 2024, according to ICAO's own data.

All of these findings have to be tracked, actioned and evidenced, often across departments, paper trails and disparate software that were never designed to talk to each other.

Meanwhile, the scope of what airports must comply with is widening. EASA's cybersecurity requirements extended to production organisations in October 2025 and in February 2026 was widened to cover air operators and maintenance organisations.

This pulls IT governance directly into the compliance function for the first time. Regulators are also less interested in a safety management system that just exists on paper. They want to see it actually shaping decisions day to day.

This is a lot to ask of systems many airports still rely on: spreadsheets, shared drives, email chains and manual audit trails. It's not just an airport problem either.

An independent 2026 survey of 795 compliance professionals by GRC Engineer found the spreadsheet is still the most-used compliance tool in any industry, ahead of every commercial platform, with 59% relying on spreadsheets, custom tools or nothing at all.

These tools were fine when compliance meant filing a report once a quarter. They were never built for continuous oversight across multiple regulatory frameworks at once, and the gaps show up in predictable places. Audit preparation can therefore become a scramble.

AIRPORTS ARE RESPONDING

ACI North America's 2025-2029 Airport Infrastructure Needs Study found that US airports need $174 billion in capital investment over the next five years, with $5.2 billion earmarked specifically for security.

That is a serious reallocation of resources toward risk and resilience, not just runways and terminals.



Compliance and risk teams are turning to technology for the same reason. The old model of managing regulation by hand has run out of road.

This is where AI is starting to earn its place in the compliance function as a working tool. Used well, it can flag inconsistencies in documentation before an auditor does, surface patterns across incident reports that a manual review would miss, and turn audit preparation from a scramble, into a continuous, low-stress process.

Instead of assembling evidence in the weeks before an audit, airports can maintain audit readiness as a permanent state. That shift, from reactive to continuous compliance, is arguably the single biggest change facing airport risk and compliance teams right now.

What does that look like in practice? It means a single, shared record of regulatory obligations rather than separate spreadsheets per department.

It means incident and audit data that updates in real time and is visible to everyone who needs it, not just the person who filed it.

And it means risk detection that runs continuously in the background, rather than compliance being something the team thinks about only when an audit date appears on the calendar.

None of this replaces human judgement; it just means the people making decisions have better information.

INVESTORS ARE PAYING ATTENTION TO REGTECH

It also explains why investors are paying attention. Across all industries, the global RegTech market is forecast to grow from around $15 billion in 2020 to as much as $87 billion by 2028, according to Verified Market Research.

Aviation compliance, and airport compliance specifically, is a small but fast-growing slice of that story.

We saw this first-hand earlier this year, when OneReg closed a US$4.4m Series A round backed by investors in New Zealand, Australia and further afield, funding that is now going directly into expanding our AI-driven regulatory assurance capability.

It reflects a broader pattern: Investors backing the infrastructure that enables airports to meet rising regulatory demands without a corresponding rise in headcount or risk.

None of this means every airport needs to rip out its existing systems overnight. But it does mean the gap between airports that have modernised their compliance function and those still managing it manually is starting to show up in ways that matter.

In audit outcomes, for instance, or in how quickly an airport can respond to an incident, and in how confidently it can answer a regulator's questions on the spot rather than promising to follow up.

The airports that get ahead of this will treat compliance less like a periodic obligation and more like an ongoing operational discipline, supported by systems that make audit readiness the default state rather than a once-a -year project.

Given how fast the regulatory landscape is moving, in scope, in complexity and in the sheer volume of evidence required, the airports that treat this as an opportunity now, rather than a compliance headache to defer, will be the ones setting the pace for the rest of the industry to follow.

AW



Time for a **new approach?**

Arthur Lavier, managing partner of Aervanta Aviation Consulting, argues that Africa needs a new privatisation playbook to avoid a capacity crunch.

As the global aviation industry progresses through 2026, the sector is witnessing a remarkable, yet troubling, geographical paradox.

According to the International Air Transport Association (IATA), Africa is recording the strongest passenger traffic growth in the world, with a staggering 10% year-on-year increase in Revenue Passenger Kilometres (RPKs).

The African Airlines Association (AFRAA) projects that passenger volumes for the continent's carriers will comfortably breach 125 million this year, continuing a double-digit surge.

From Cairo to Cape Town, the demand for air travel is booming, propelled by rapid urbanisation, an expanding middle class, and renewed political momentum for economic integration.

But does the continent have the infrastructure to cope with the demand? The truth is that the terminal buildings at many of the biggest airports are operating near to their capacity, baggage delivery can be painfully slow, and some runways are operating close to their peak physical limits.

In my opinion, the continent faces an acute, systemic airport capacity crisis. While the demand for air travel is soaring, investment in physical infrastructure appears to have plateaued.

To unlock the billions of dollars required to modernise its gateways, Africa urgently needs a new, more sophisticated privatisation playbook – one that aligns the interests of private capital, national governments, labour, and climate reality.

THE AFRICAN PARADOX

The cost of Africa's infrastructure deficit is no longer just an operational headache; it is a direct constraint on macroeconomic growth.

Because of capacity bottlenecks, intra-African travel remains some of the most expensive and least efficient in the world. High operating costs at congested airports, often combined with unrealistically inflated government-imposed airport taxes have pushed average ticket prices beyond the reach of the vast majority of populations.

This capacity crisis is compounded by a historical lack of public investment. Cash-starved national treasuries, struggling under high sovereign debt-to-GDP ratios, cannot afford the significant capital expenditure required for modern terminals, runway extensions, and advanced air traffic management.

But the global investment landscape of 2026 is fundamentally different from that of a decade ago. Institutional investors are no longer interested in simple, high-yield infrastructure concessions that ignore broader social, regulatory, and environmental risks.

THE LIMITS OF THE TRADITIONAL PRIVATISATION MODEL

For decades, the standard approach was the long-term concession – typically a 30-year Build-Operate-Transfer (BOT) agreement.

However, some recent high-profile examples of failed privatisation processes in Nigeria and Kenya arguably demonstrate why this playbook has reached its structural limits.

It is common knowledge that the Nigerian government has attempted to concession its major international gateways in Lagos, Abuja,



Image courtesy of YingChu Chen/Unsplash.

Kano, and Port Harcourt for years, but the process has been repeatedly derailed by legal challenges and fierce opposition from aviation unions.

The situation certainly hasn't been helped, in my opinion, by privatisation programmes being viewed more for their economic value than a complex institutional partnership.

More recently the Kenyan government's failed attempt to lease Nairobi's Jomo Kenyatta International Airport (NBO) to India's Adani Group triggered crippling airport worker strikes, severe flight disruptions, and intense public protests.

The deal, negotiated with minimal transparency, faced immediate legal challenges from civil society and unions fearing mass retrenchments and erosion of national sovereignty.

In truth, any privatisation model that ignores labour and public stakeholder buy-in is a political and operational liability that global investors will increasingly refuse to touch.

PILLARS OF A NEW PPP PLAYBOOK

In my experience, a successful modern African airport PPP must integrate three critical pillars:

1. **Blended finance and patient capital**
   Governments must deploy blended finance models, partnering with development finance institutions such as the IFC or the African Development Bank to secure long-term, concessional equity and first-loss guarantees.

   This 'patient capital' reduces immediate financial pressure on the private operator, allowing them to structure tariffs that stimulate traffic growth rather than suppressing it.

2. **Deep ESG Integration**
   On the social front, concessions must include labour transition frameworks, retraining programmes, and local community ownership stakes.

   On the environmental front, a 'Net-Zero ready' airport that integrates solar-plus-storage microgrids lowers long-term operating costs, builds operational resilience, and unlocks access to global green finance through green bonds.

3. **Alignment with the Single African Air Transport Marker (SAATM)**
   Concession agreements should feature dynamic, volume-linked tariff structures that offer significant discounts on landing and navigation fees for intra-African regional flights.

By lowering the cost of regional connectivity, airports can drive massive passenger volumes, shifting their primary revenue driver from high aeronautical fees to high-volume retail and cargo logistics.

THREE ACTIONABLE RECOMMENDATIONS

- Shift from 'Highest Bidder' to 'Highest Value' tender evaluation – heavily weighting long-term capital investment plans, local workforce development, and decarbonisation strategies over the upfront concession fee.
- Establish Pre-Transaction Stakeholder Forums – structured, transparent dialogue with unions, local business associations, and environmental groups before drafting any PPP prospectus.
- Pioneer Hybrid Regional Network Concessions – bundling high-yield international airports with secondary domestic gateways into a single PPP package to ensure regional connectivity is modernised alongside primary hubs.

NAVIGATING THE FUTURE OF AFRICAN AVIATION

The potential future African airport capacity crisis is not an insurmountable obstacle; it is a generational investment opportunity.

At Aervanta Aviation Consulting we specialise in helping governments, institutional investors and operators design transparent, resilient, and climate-aligned PPP structures that bridge the gap between global capital and local development needs.

Africa has the potential to lead global aviation growth. With a new privatisation playbook, the continent can finally build the world-class, sustainable gateways that its people and economy so richly deserve. AW



Electric avenue

Grid capacity is the new constraint on airport electrification, but doesn't have to stall progress, writes Damien O'Regan, product strategy lead at Enatel.

Data centres, EVs and broader electrification are claiming grid capacity faster than utilities can add it, and airports electrifying their ground fleets are feeling the squeeze. However, the right charging strategy can help airports do more with the power they already have.

A 2024 survey found that 65% of airports had adopted at least one eGSE vehicle, and almost 70% plan to increase their eGSE fleet size in the future.

As airports move from a few electric tugs to fleet-wide rollouts, many are finding that power, not equipment, now sets the pace.

Airports are competing for power on two fronts. At the utility level, data centres, AI workloads and EV adoption are claiming grid capacity faster than it can be added, and the International Energy Agency (IEA) expects global data centre electricity demand to more than double by 2030.

In Ireland, data centres already use more than 21% of the country's metered electricity. At the airport, electrified gate power and EV charging for rental car fleets and parking garages all draw on the same connection, leaving less headroom for the ramp.

Airports have more control over this constraint than it may seem. The right decisions on charging strategy, infrastructure and energy storage, can open up capacity long before a utility upgrade arrives.

WHY GRID CAPACITY IS A BOTTLENECK

Electrifying the ramp adds a new load at a time when the grid has little room to spare. Research from the National Laboratory of the Rockies (NLR) found that fully electrifying GSE at the largest US hubs could add up to 20MW of peak demand and about 51,000MWh of annual consumption.

Utility upgrades rarely move at the speed of fleet plans. In parts of Northern Europe and Scandinavia, getting a transformer to increase supply can take two to five years, and Ireland is already restricting new grid connections as data centres absorb capacity.

Globally, more than 2,500GW of renewable, storage and large-load projects are stalled in grid connection queues, and new grid infrastructure can take five to 15 years to deliver. The shift to lithium-ion adds pressure too, since faster charging draws more current and can push electric airports past their circuit limits.

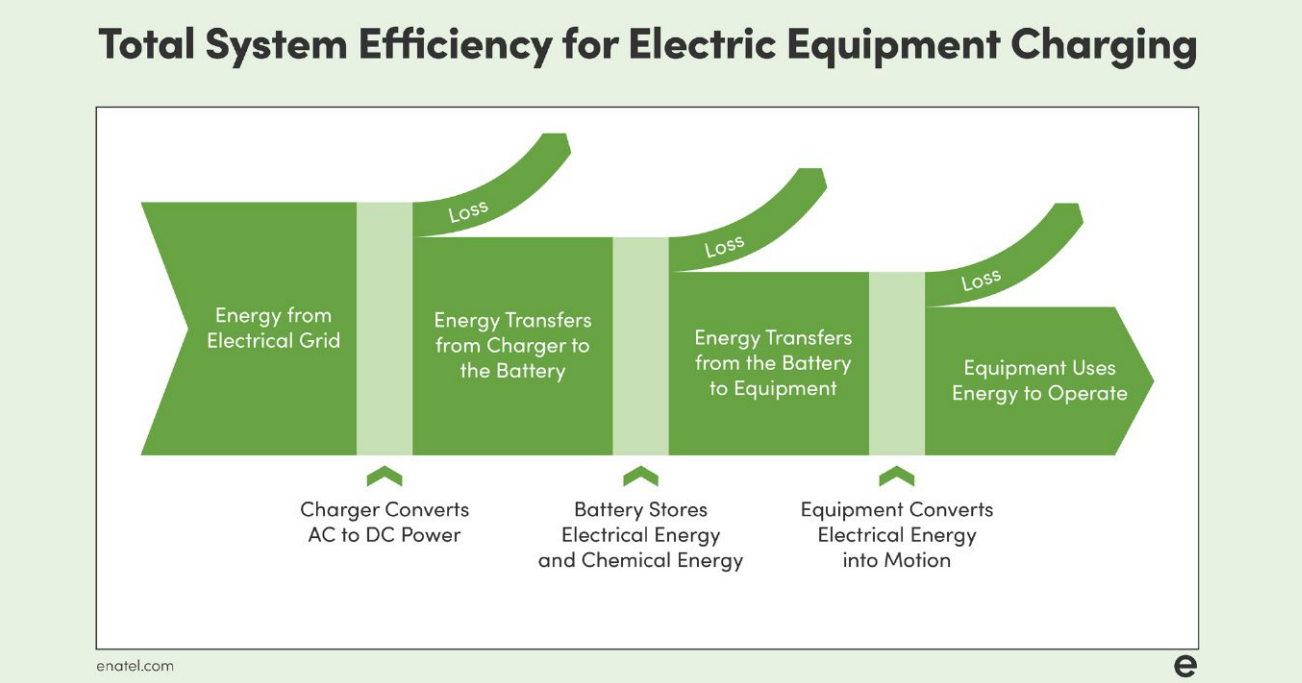
The real issue is peak demand, not total energy use. Oak Ridge National Laboratory's modelling at Dallas Fort Worth International Airport found that GSE is a small share of airport consumption, but charging clusters around morning and late-afternoon flight banks and stacks on top of existing load.

Those spikes are what infrastructure has to be sized for, and they're also what airports can control.

PLANNING FOR THE PEAK, AND THE FLEET

Airports that treat available power as a planning input, not an afterthought, can size their fleets and infrastructure around what the grid can deliver.

Audit available power. Before investing in charging equipment, assess capacity at each potential charging location, the load profile across shifts and how many chargers the fleet needs. The electrical supply often decides where chargers can go.



Build a charging strategy around the peak. NLR found that when and how vehicles charge has a substantial impact on peak demand and on the number of vehicles and chargers needed. Pushing most charging into an overnight window, for example, can raise the peak even in cheaper off-peak hours.

Use intelligent load management. Chargers that cap total power across a group, or connect to the airport's energy management system, act as a backstop on busy days and can run below maximum capacity to cut demand charges.

Phase the rollout. Some airports transition over three to five years, adding load step by step while operations keep running. Brisbane Airport is building out its common-use charging network in stages, with each decision made with the next phase in mind.

ADDITIONAL WORKAROUNDS THAT UNLOCK CAPACITY

Planning and load management lay the foundation, but airports have several other levers available to stretch the power they already have, and a combination of these strategies can create further impact.

• Shared and dual-port chargers can reduce dedicated charging infrastructure and improve utilisation, particularly where vehicles have complementary operating and dwell periods.

The payoff is a charging network that can adapt as fleets and handlers change, but getting there means settling compatibility, connector standards, battery communication and operational ownership early.

• Behind-the-meter battery storage can charge during off-peak windows and discharge during peaks. NLR found that behind-the-meter storage and solar can reduce GSE-related peak demand by roughly 20% to 50% and lower lifecycle costs by 5% to 20%, with savings of up to $10 million at large airports.

Storage also brings two practical benefits on the ramp: charging can continue through short outages, and chargers can go where operations need them rather than only where circuits allow.

• Solar and other on-site generation reduce dependence on the grid. Pairing them with storage and controls in a microgrid lets airports balance supply and demand locally and keep critical operations running when the grid is constrained.

Larger airports with capital to invest are leading here. DFW's $234 million electric Central Utility Plant is one example.

• Consider your charger efficiency and modularity. Every point of efficiency means less power pulled from the grid for the same charge. Moving a 48V fleet from 85% to more than 97% peak-efficiency chargers cuts the grid energy needed per charge by roughly 12%.

Airports can bank that gain as lower electricity costs and emissions, or hold power draw steady and charge faster, getting more turns per charger.

Modularity matters just as much. Chargers built from interchangeable power modules let airports start at the capacity they need today and scale as fleets grow or power needs shift, without replacing the underlying hardware.

Grid capacity will be a defining constraint of the next phase of airside electrification, but it doesn't have to stall progress.

Airport leaders can consider capacity, peak, upgrade timeline and how to create a unified charging network to make meaningful progress.

Airports that plan for mixed fleets, consolidate charging instead of defaulting to dedicated chargers, use dual-port equipment where it fits and co-ordinate demand across the charging network can electrify more of the ramp with the power already available.

Storage, on-site generation and microgrids can add headroom, but the first opportunity is using existing infrastructure more intelligently.

AW



Seattle-Tacoma International Airport

The expansion of Sea-Tac's C Concourse is designed to improve the passenger experience by enhancing circulation, comfort and accessibility at the Pacific Northwest's busiest airport.

Inspired by the natural landscapes of the Pacific Northwest, the iconic new addition to the C Concourse elevates the passenger experience at Seattle-Tacoma International Airport (SEA), and caps off another major improvement under the Upgrade SEA umbrella.

The redesigned C Concourse Expansion (CCE) is located between the C and D Concourses. Four new floors rise from the former footprint of non-public space that primarily housed offices and tenant storage.

Now, this open atrium welcomes travellers with ten new dining and retail options, six new SEA Sparks Incubator Program retail kiosks, the Tree at C and Grand Stairs, an Interfaith Prayer and Meditation Room, a Sensory Room, a Nursing Room, a performance area, and an airfield observation area called The Lookout at C.

"The C Concourse Expansion represents more than a new building for the Port of Seattle — it demonstrates what is possible when innovation, environmental leadership, and partnership come together," said Port of Seattle Commission president, Ryan Calkins.

"The Port is proud to deliver a transformative space that elevates comfort and connection while advancing its climate goals."

Creating over 145,000 square feet of new space with a wish list of services, amenities, and art, the C Concourse Expansion reflects a climate-friendly and future-forward design that merges the Pacific Northwest's lush natural landscapes with the comforts of home.

According to the Port of Seattle, travellers will feel the forest in the geometric patterns of Western Hemlock overhead that flow down an architectural centrepiece called the Tree at C, while being soaked in curated daylighting through the folded facade windows.

Sitting among the Grand Stairs, the Tree at C extends upward to the 30-foot-high ceiling, functioning as both a central gathering space and a circulation path. Each level of the building is slightly set back to allow clear sightlines and reinforce a sense of openness.

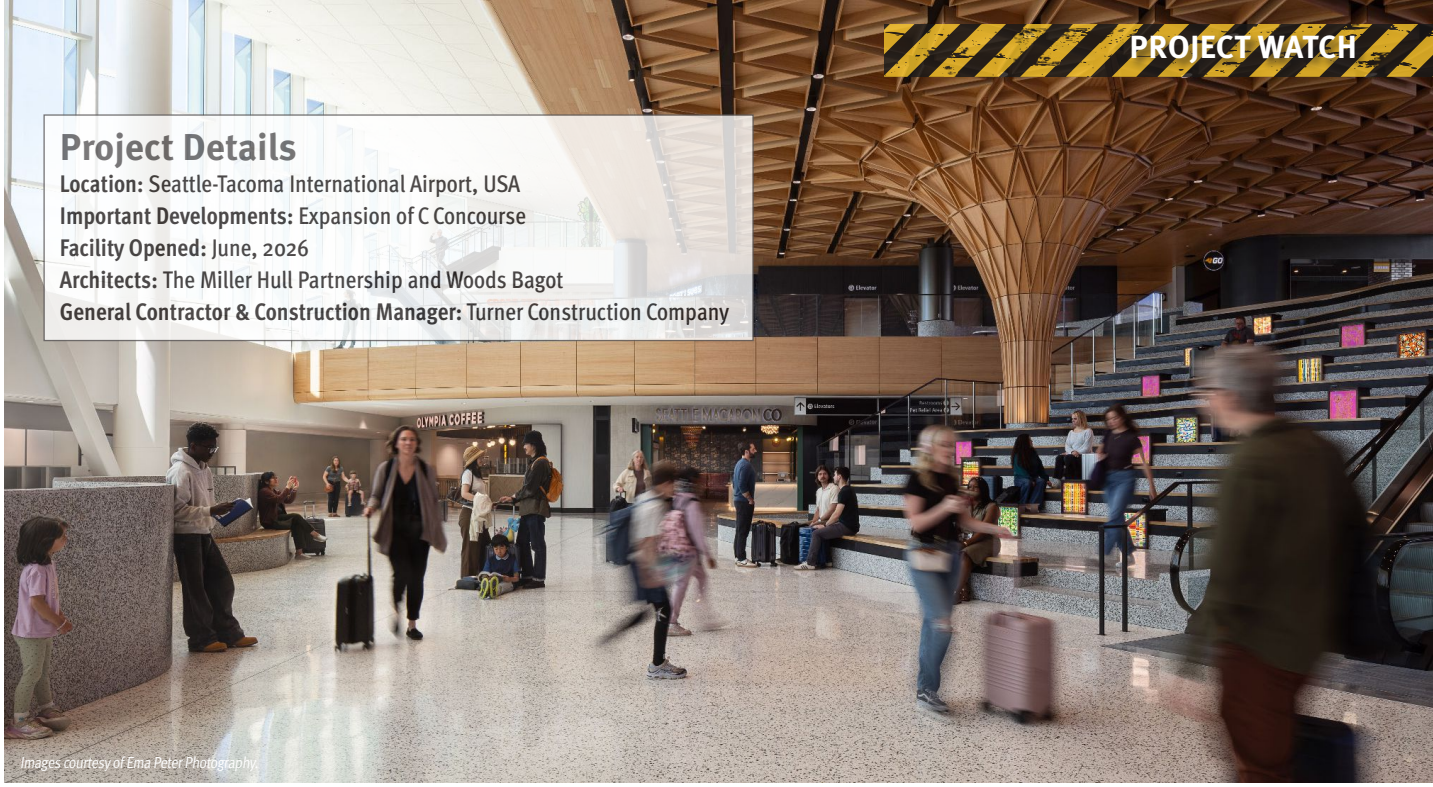
"SEA is one of the most space-constrained airports in the country while welcoming the 11th largest number of passengers. So, our teams had to get creative – and this space is the perfect illustration of creativity," said SEA's managing director Wendy Reiter.

"We couldn't go out, so we had to go up! Using the same footprint, and not losing any gates, we've created more comfort and utility for our travellers."

According to The Miller Hull Partnership and Woods Bagot, guided by the concept 'Bringing In, Seeing Out', the design restores a connection to flight and the surrounding landscape.

A folded exterior façade responds to the concourse's southwest exposure with patterning inspired by Northwest forests. Alternating south and west-facing glass panels form vertical ribbons of light, each calibrated with dynamic tinting electrochromic glass to minimise glare and optimise daylight.

Inside, soaring volumes and framed sightlines draw passengers toward natural light and long views across the airfield. Designed to ease congestion, enhance comfort, and celebrate the region's natural beauty, the expansion prioritises passenger flow, daylight, and sustainability.



Images courtesy of Ema Peter Photography.

Project Details

Location: Seattle-Tacoma International Airport, USA
Important Developments: Expansion of C Concourse
Facility Opened: June, 2026
Architects: The Miller Hull Partnership and Woods Bagot
General Contractor & Construction Manager: Turner Construction Company

SUSTAINABILITY

As the first airport project to implement the Port's Sustainable Evaluation Framework, CCE introduces several firsts for Sea-Tac, including its first photovoltaic panel installation, first all-electric project, first public outdoor space on the airside, and first project to target LEED Platinum certification.

The project integrates all-electric, fossil fuel-free systems for heating and hot water; a 500kW photovoltaic array that will produce 12% of the project's annual energy; electrochromic glazing; low-flow water fixtures; waste-reduction and food-donation infrastructure; and biophilic design strategies – establishing a new benchmark for future development at SEA.

With its completion, the C Concourse Expansion represents a significant step forward in SEA's ongoing transformation, demonstrating how thoughtful design, sustainability leadership, and collaboration can reshape the passenger experience.

"As the day progresses, the concourse responds to the changing light and weather of the Pacific Northwest," said Rich Whealan, principal at The Miller Hull Partnership.

"On overcast, cloud-rich days, visibility is maximised to highlight the views of the airfield and Olympic Range, while soft, even daylight fills the interior, enhancing comfort and connecting travellers to the surrounding landscape."

A LIGHT-FILLED SPACE

At the heart of the expansion is a two-storey, daylight-filled marketplace inspired by Seattle's public markets and civic gathering places.

Dining and retail options surround an open, tiered seating area designed for live music and informal gatherings, while freestanding kiosks introduce variety and moments of discovery for frequent travellers.

The Grand Stair anchors the space, connecting the concourse to mezzanine-level amenities and reinforcing strong visual and physical connections between levels.

Integrated into this central area is the Tree at C, a sculptural wood element that rises from the Grand Stair and branches into the wood ceiling above.

Referencing the forests of the Pacific Northwest, it functions as both a point of orientation and a place to linger – supporting seating, integrated artwork, and framed views of the airfield.

Natural materials grown and sourced in the Northwest are used throughout these elements, as well as in the terrazzo flooring below, emphasising that this section of SEA is local not only in spirit but also in composition.

The Lookout at C marks SEA's first public outdoor space on the airside – enclosed in glass and open to all passengers. From this elevated vantage point, travellers can enjoy unobstructed views of the airfield and the Olympic Mountains.

"The C Concourse Expansion project will be more than just a transit hub – it will be a reflection of the world it serves and the collaborative processes behind it," enthused Katy Mercer, Woods Bagot principal and interior design leader, North America.

"With amenities like a sensory room, an interfaith prayer and meditation room, and a nursing room, these spaces are designed to embrace the diverse backgrounds of all passengers.

"We aim to create an authentic experience where every traveller finds a sense of belonging, and every corner tells the story of the place it represents."

AW

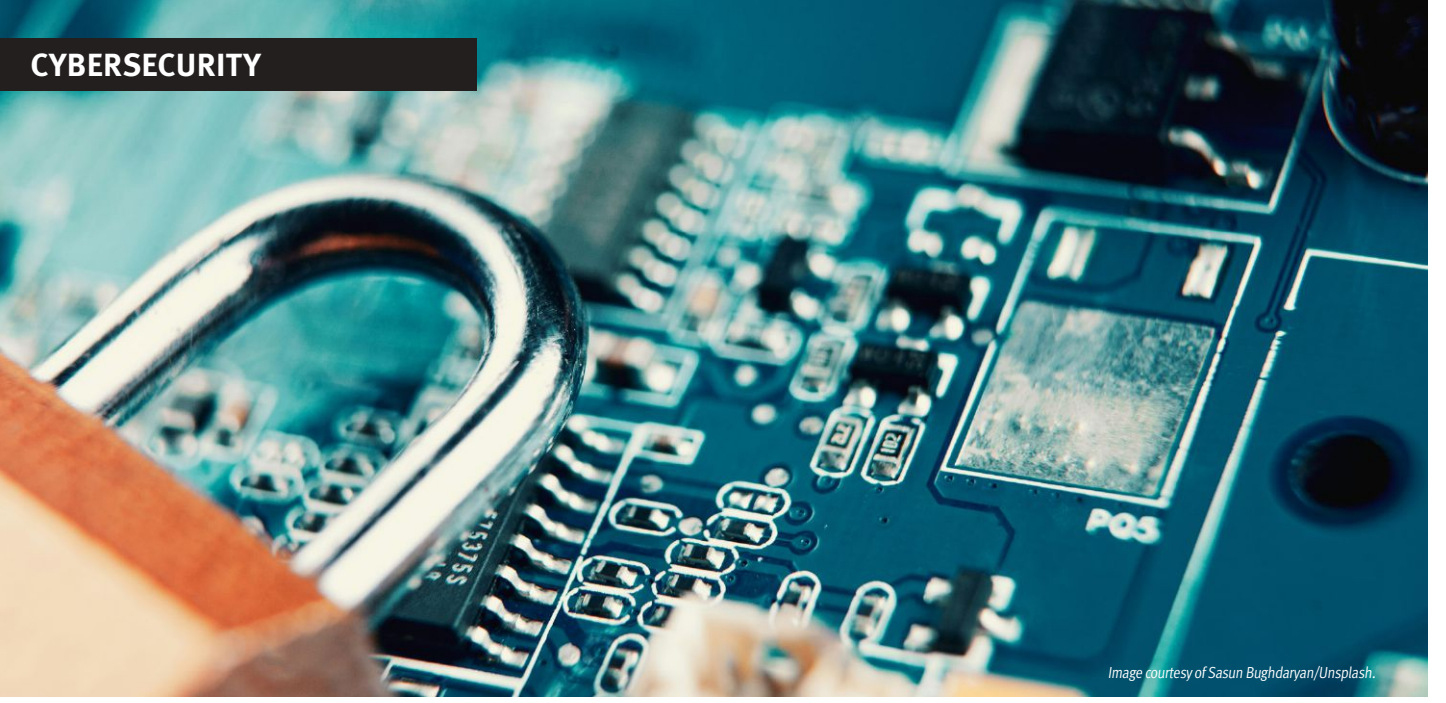


Image courtesy of Sasun Bughdaryan/Unsplash.

Digital **dangers**

Flare's Adrian Cheek considers some simple steps airports can take to make themselves less vulnerable to cybercrime.

Airports typically rely on hundreds of connected systems and technologies that allow them to operate safely, efficiently and effectively.

In most airports, many were installed at different times by different suppliers and are looked after by different teams, so a complete picture of the estate is hard to hold in one place.

We wanted to know how much of that picture an outsider, and potentially cyber criminals, could assemble without touching any of it.

Using publicly available records and existing internet measurement data, we examined seven airport operators in the United States and Canada to see what an outsider could learn without logging in or attempting to enter their networks.

Our starting point was the Domain Name System (DNS), often described as the internet's phone book. It connects names to a numeric address that computers use to find one another. Those records can reveal more about an airport than the organisation may realise.

OPERATIONAL SYSTEMS WERE NOT EXPOSED

The good news is that we found no airport operational control systems directly reachable from the internet in the networks we could examine.

Across six operators whose internet address ranges we could map, roughly 50 internet-facing hosts appeared in existing measurement records.

They were largely perimeter, management and access systems: gateways, firewalls and web services. We found no responding airfield, baggage or building control systems. We also checked that our data sources could detect the types of industrial equipment we were looking for.

WHAT THE OUTSIDE WORLD CAN STILL SEE

What we did uncover, however, were numerous vulnerabilities that could, in the wrong hands, present a risk to airport operators.

The directory names the systems. Across six operators, we recovered 165 published network names. Some described everyday infrastructure, while others identified badging, building management, vehicle recognition, fuel management, flight displays and environmental monitoring.

A name can identify a system without making that system accessible from the internet. It can suggest the technology and suppliers in use. That helps an outsider write a convincing phishing message or decide where to look next.

Test systems are on show. Three of the six operators whose networks we could map published names for test or development versions of safety, credentialing or business applications. Each is a prompt for management: is the system still needed, and who is responsible for it?

Some edge equipment warrants a closer look. Devices at the edge of an airport network, including those used for remote access, have been a common access route for attackers.

At one major airport authority, an internet-facing device reported nearly six years of uptime. Uptime alone does not show the device was unpatched. Updates to this class of device usually require a restart, so the maintenance history is worth checking.

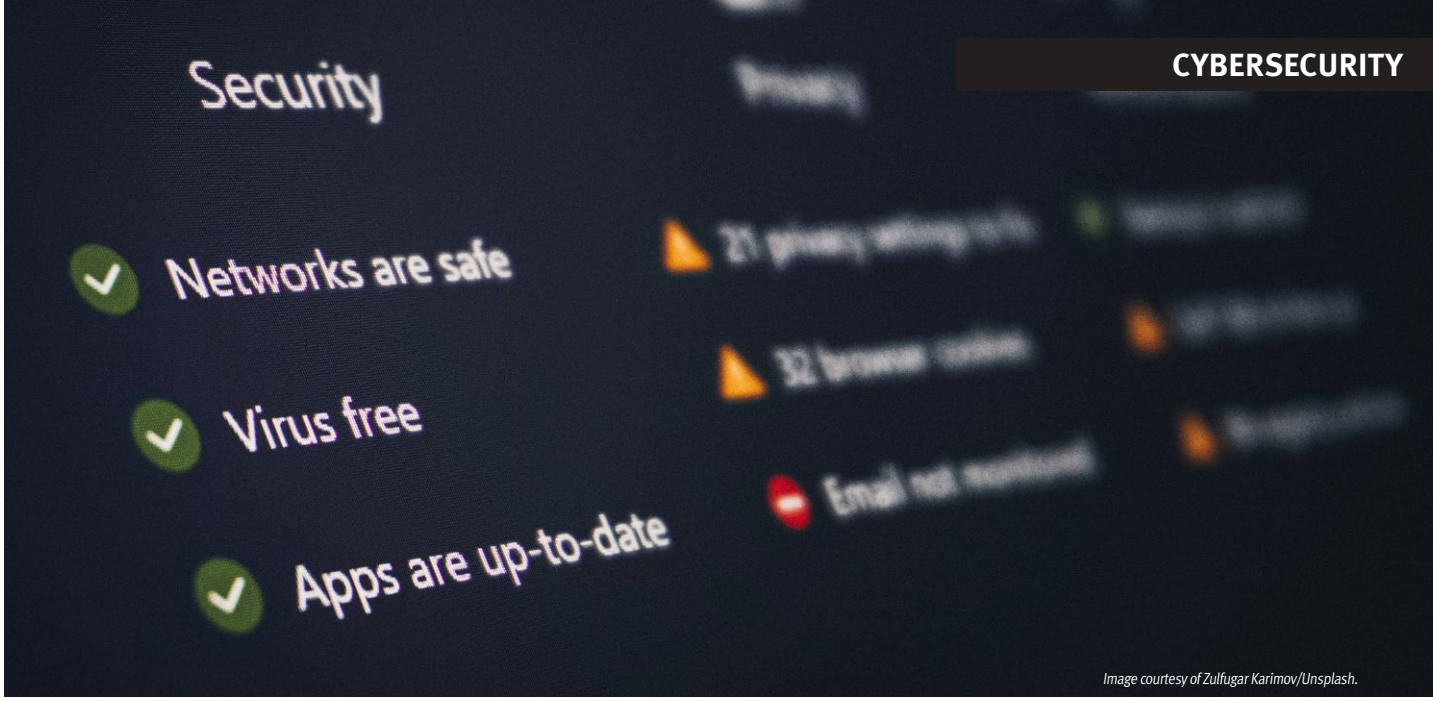


Image courtesy of Zulfugar Karimov/Unsplash.

Another operator still supported an older version of a network management protocol, protected only by a shared password, alongside its modern replacement.

Leaked credentials add a separate concern. We checked three airport-operator email domains against collections of publicly exposed credentials. All three returned results: 950 records associated with 253 accounts.

Most came from historical breaches and recycled password lists, some dating back to 2008; many may no longer work. A smaller group deserves further investigation.

Twenty records involving five accounts came from infostealer malware logs and a phishing kit. They may indicate more recent exposure, although the records alone do not prove that the credentials remain valid.

One malware record included a credential for the administration console of an operator's multi-factor authentication service. That service protects staff logins with an additional verification step.

We did not attempt to use it or establish what permissions the account held. If an attacker obtained working administrative access to that service, they might be able to change how other staff accounts are protected.

The relevant findings were shared with the operators concerned and the aviation sector's information-sharing community.

HOW FAR THE CHECK REACHES

Checking only an airport's main website domain gave an incomplete picture. Examining historical name records across the operator's own internet address range returned up to six times as many names at one operator.

Some airports used additional domains on the same network, including names associated with operational systems. We saw the same problem with leaked credentials: for one operator, its public-facing email domain had 14 affected accounts, while a second operational domain had another 197.

The implication here is that an external security review that starts and stops at the public website can miss systems and accounts that an outsider could identify.

QUESTIONS FOR THE LEADERSHIP TEAMS

Airport leaders do not need to master DNS to act on these findings. They can ask the teams responsible:

- Does our external security review include all the domains and internet address ranges we own or use, including systems managed by contractors and suppliers?
- Which of our test and development systems can be seen from outside, and do we still need them?
- When were our remote access and firewall devices last updated, and who is accountable for them?
- Are all our email domains, including secondary ones, checked for exposed credentials, with recent malware-related records investigated promptly?
- Who can administer the systems that protect staff logins, and how is that access secured?
- Have we deliberately decided how much information our published system names should reveal?

SCALE OF THE STUDY

Seven operators is a small sample, and only six could be mapped to the level used for the network findings. The credential figures come from three email domains, not from every airport in the study.

We found no operational control systems directly reachable in the observed address space. Published names, perimeter details and exposed account records still gave an outsider useful information without any intrusion.

Airport leaders can ask their own teams to produce the same outside view and act on what it shows.

AW





The connectivity challenge

Frankfurt, Berlin and Munich prove that the best airport networks are not necessarily those with the most destinations, argues Ahmed Alhamayda.

Imagine two airport executives presenting their network results. One announces ten new destinations. The other announces none, but has secured more frequent flights, better connections and additional long-haul capacity.

Who deserves the bigger round of applause? In my view, aviation is too quick to celebrate the first executive.

New routes make attractive headlines; improvements to existing services rarely receive the same attention. But passengers do not travel on headlines. They travel on schedules that fit their lives. A route map measures reach, a useful network measures opportunity.

In my opinion, Frankfurt (FRA), Berlin Brandenburg (BER) and Munich (MUC) airports in Germany show why airport boards should look beyond destination totals.

FRANKFURT: THE POWER OF STAYING CONNECTED

Frankfurt's greatest strength is easy to miss if all you see is a destination count.

Its summer 2026 schedule offered 283 destinations across 92 countries, served by 88 airlines. More revealing were over 1,000 weekly intercontinental connections and approximately 871,000 available seats a week.

For a major hub, network value comes from how services work together. A flight arriving from one city becomes more useful when it opens practical onward options to another.

Consider Condor's addition of Barcelona, Venice and Budapest to its feeder network, each with three daily services. These are more than extra dots on a route map.

Frequent feeder flights create more opportunities to combine journeys through Frankfurt.

CONNECTIVITY IS CREATED BETWEEN FLIGHTS, NOT MERELY BY FLIGHTS

A destination served once a week, and one served three times a day can look identical on a route map. However, for travellers planning an international connection, they are worlds apart.

Frankfurt's winter 2026/27 schedule lists 231 destinations, around 3,400 weekly departures and 650,000 weekly seats.

I would resist comparing that destination count with summer's as if the difference were a performance score. Airports serve different markets at different times of year.

The real test for a mature hub is not how quickly it collects new routes. It is whether its network remains useful, connected and dependable.

BERLIN: WHY SEASONALITY DESERVES MORE RESPECT

Berlin makes a case that airport executives sometimes struggle to communicate. Seasonality can be evidence of a sensible strategy.

Berlin Brandenburg's summer 2026 schedule included 155 destinations in 55 countries. Its winter 2026/27 programme offers 140 destinations, ten more than the previous winter.

BER serves tourists, business travellers and people visiting friends and relatives. Their needs differ: some want holiday departures concentrated around peak demand; others value services operating throughout the working year.

Eurowings' decision to continue Lisbon, Porto and Bilbao into winter for the first time is telling. It reflects an opportunity to extend selected markets beyond their summer schedules while keeping flexibility elsewhere.

In my view, year-round service should not be treated as a trophy. A route does not become strategically sound simply because it operates in January.





What matters is whether the schedule fits the market. Berlin Brandenburg's challenge is to distinguish routes that deserve continuity from those best served seasonally.

This is not about creating a second-best network, it is about creating a network that knows its customers.

MUNICH: THE IMPROVEMENTS PASSENGERS ACTUALLY NOTICE

Munich offers my favourite reminder that some of the most useful network improvements barely alter the map.

Its summer 2026 programme covered 220 destinations in 70 countries, with 90 airlines scheduling more than 206,000 flights.

I want to highlight two details. Lufthansa increased its scheduled Seattle service from three to six weekly flights. Munich Airport also announced the deployment of larger Boeing 777-300s on EVA Air's Taipei route, adding capacity on an existing connection.

Seattle is about choice. Six weekly flights give travellers more freedom to select a departure day. Taipei is about scale: more seats can serve a market without a fresh line appearing on the map. Neither example requires a new destination. Both can change what an existing route offers.

Here is the question I wish we heard more often at airport conferences. How much more useful did MUC's network become without adding a single new destination?

A passenger who gains three extra departure days on a route they need may benefit more than one offered an entirely new destination they have no intention of visiting. This is the difference between breadth and depth. Breadth tells us where an airport flies. Depth tells us how effectively it serves those markets.

THE NETWORK OPPORTUNITY SCORECARD

If destination totals are only the opening line, what belongs on the next slide? I would use four measures.

REACH – Where can passengers travel?
Count non-stop destinations and strategically important markets. Compare equivalent seasons and apply consistent definitions.

DEPTH – How useful is each service?
Look at weekly frequency, available seats and operating days. Daily and weekly flights are not interchangeable.

CONNECTIVITY – Which journeys become possible?
For hubs, examine feasible transfers and feeder networks. For predominantly point-to-point airports, prioritise convenient non-stop access and local demand.

RESILIENCE – How durable is the offer?
Track route continuity, seasonal coverage and concentration among airlines and markets.

These are not four equal boxes for every airport. In my view, Frankfurt should assign more weight to connecting opportunities; Berlin may emphasise how closely schedules fit local demand. A regional airport will have different priorities.

Published timetables show planned connectivity, not profitability. But they give executives a more meaningful starting point than a destination tally alone.

STOP COUNTING ROUTES. START MEASURING OPPORTUNITY

New destinations will always make good photographs. Additional frequencies, smarter timings and an extended operating season rarely do.

But those quieter decisions often determine whether an airport is genuinely easy to use.

Frankfurt demonstrates hub connectivity. Berlin shows the value of seasonal discipline. Munich reveals what deeper service can achieve.

The real test is not how many destinations an airport can announce. It is whether its network creates better opportunities for the people and markets it serves. That is the measure of progress airport boards should demand. AW

About the author

Ahmed Alhamayda is the founder of Airpiv, a flight-search and travel-information platform (airpiv.com). The analysis used in this article is based on publicly available airport-operator schedules.



Image courtesy of Patrick Campanale/Unsplash.

Adapt and **grow**

Airports must prioritise adaptability to build operational resilience in uncertain times, writes Schneider Electric's mobility segment president, Ignacio Camauer.

For decades, global aviation has relied on predictability. Airlines and airports planned around established hub networks that efficiently connected continents and kept passengers and goods moving. That model is becoming harder to depend on.

Recent geopolitical events have demonstrated how quickly established patterns can change. As airspace restrictions and operational disruption reshaped routes between Asia and Europe, airlines had to adjust schedules, re-route services and rebalance capacity at short notice.

Operational resilience now depends less on planning for one predictable future and more on preparing to respond quickly to many possible scenarios.

In this market environment, adaptability must become the foundation of airport resilience.

OPERATIONAL RESILIENCE IS KEY TO AVIATION GROWTH

This will become increasingly important as aviation grows. According to ACI World's 2024 traffic outlook, global airport passenger traffic is expected to rise from 8.7 billion in 2023 to 25 billion by 2052.

Meanwhile, airports are under increasing pressure to decarbonise. ACI's Airport Carbon Accreditation programme now encompasses 590 airports handling 4.7 billion passengers annually, approximately 54% of global passenger traffic.

Airports must therefore prepare for higher demand and greater decarbonisation requirements while navigating an increasingly volatile operating environment.

This requires adaptable systems and infrastructure that can detect changing conditions, assess their consequences and co-ordinate the appropriate response.

To become more resilient, airport operators should consider investing in three areas: creating a common operational picture, moving from reactive to predictive decision-making, and treating energy infrastructure as a flexible operational resource.

CREATE A COMMON OPERATIONAL PICTURE

Airports generate vast amounts of data from baggage systems, terminal facilities, airfield operations, energy management, security and passenger movement. However, these systems often operate independently. They create multiple versions of operational reality rather than one co-ordinated picture.

Without integration and clear governance, this fragmentation slows down decision-making and response to disruption when speed matters most.

To address this challenge, airports should connect existing systems through a shared operational layer rather than automatically replacing them.

Real-time dashboards, centralised alarm management and common performance indicators can give operations, facilities and energy teams the same view.

Clear ownership and escalation processes must support the technology so teams know which information is authoritative and who should act.

This is particularly valuable during cascading disruption. A problem in baggage handling or security can quickly affect gate allocation, aircraft turnaround times and passenger experience.

A common view enables teams to understand these dependencies and intervene before a local issue becomes airport wide.

Barcelona El Prat Airport demonstrates the value of this approach. By consolidating numerous operational systems into one platform, it expanded monitoring twentyfold, from approximately 35,000 to more than 700,000 real-time signals.

The platform is designed to scale to 1.5 million signals, enabling faster incident response and more proactive day-to-day management.

MOVE FROM REACTING TO PREDICTING

Once reliable data is connected, airports can move towards a predict-and-prevent model.



Picture by David Syphers/Unsplash.

Artificial Intelligence can play an important role, but critically, its effectiveness depends on the information beneath it.

If data remains fragmented or unreliable, AI will reproduce those weaknesses rather than overcome them.

Gartner has predicted that organisations will abandon 60% of AI projects unsupported by AI-ready data, underlining the need for cross-functional data governance.

To make the most of their AI investments, airport operators should first improve data quality and consolidate information to ensue AI tools are using accurate and reliable data.

Analytics can then identify patterns across systems, detect anomalies and recommend action more quickly.

AI could, for example, anticipate congestion by combining passenger-flow data with security waiting times and flight schedules.

It could use weather, temperature, humidity and occupancy data to adjust heating, ventilation and air-conditioning while protecting passenger comfort. It could also identify deteriorating assets before they fail, allowing maintenance to be scheduled during quieter periods.

This creates a repeatable process for adaptability: measure conditions, assess their impact, predict what may happen next, take action, and learn from the outcome.

MAKE ENERGY INFRASTRUCTURE ADAPTABLE

Energy systems must be part of this shared operational picture. Large airports can consume as much energy as a small city, and the electrification of vehicles, heating and other services will make reliable power even more critical.

Data from Enterprise Mobility reveals that electric powered demand at airports will increase five-fold by 2050.

Heating, cooling, electrical distribution and power management should therefore no longer be treated as background utilities. Connected systems can identify abnormal conditions and help operators prioritise critical loads. During disruption, airports can reroute terminal operations, activate standby systems or reduce non-essential demand without compromising safety.

Microgrids and on-site renewables can add another layer of adaptability by maintaining priority operations during grid events and managing peaks in demand.

JFK's New Terminal One provides a practical example. Its planned microgrid will combine 13,000 solar panels with fuel cells and a system that recovers waste heat to produce chilled water.

Four island-capable power zones will allow priority operations to continue if part of the system is affected.

The microgrid is expected to support 50% of the terminal's load during outages, demonstrating how adaptability can be engineered into physical infrastructure rather than improvised after disruption occurs.

ADAPTABILITY IS THE FOUNDATION OF RESILIENCE

Airports will increasingly be judged by their ability to adapt rather than simply accommodate more passengers.

Geopolitical, environmental and operational risks will remain difficult to predict, while decarbonisation and electrification will create new dependencies.

Airports cannot prepare in advance for every possible disruption. They can, however, establish one shared operational view, use predictive insight to intervene earlier and develop flexible energy systems capable of protecting critical services.

The airports best positioned for the future will not necessarily have the largest physical footprint. They will be those that can identify change sooner, co-ordinate decisions faster and adjust operations without compromising safety or passenger experience.

In an industry where disruption has become constant, adaptability is what makes resilience possible.

AW





Going green

***Airport World* highlights five very different projects that are designed to help ensure the sustainable growth of their respective airports and aviation.**

BOSTON RECEIVES FIRST BARGE DELIVERY OF SAF

The Massachusetts Port Authority (Massport) joined Delta Air Lines, elected officials, Shell Aviation and aviation stakeholders on October 29 to mark a major milestone in sustainable aviation with the first barge delivery of sustainable aviation fuel (SAF) to Massachusetts.

The delivery to Boston Logan International Airport marks an important step toward expanding access to cleaner aviation fuel, reducing greenhouse gas emissions, and supporting innovation in the Commonwealth.

"By expanding the use of sustainable aviation fuel, we're taking an important step toward reducing emissions and protecting our environment," said Governor Maura Healey.

"This is about embracing new technologies and building a cleaner, healthier transportation system for the communities we serve, especially those living near our airports."

The delivery arrived at BOS and was co-ordinated by Delta Air Lines and Shell Aviation and included more than one million gallons of blended SAF.

The fuel has been introduced into the airport's supply, which serves all the airlines operating at Logan.

LIGHTS ON FOR GLASGOW AIRPORT'S SOLAR PLANT

Ikigai Group, a leading energy transition adviser and developer, together with Zestec Renewable Energy, have announced the successful opening of a 10MW solar PV plant at Glasgow Airport.

Developed in partnership with AGS Airports, the landmark project was supported by Ikigai from its inception, including securing the investment partner.

Zestec Renewable Energy funded, delivered and energised the first phase, with RSK Group acting as contractor.

The solar farm is part of AGS Airports' Horizons programme and a major sustainability milestone for Glasgow Airport as it will generate enough renewable electricity to meet around 25% of its on-site demand.

Horizons, AGS Airports' sustainability & ESG strategy sets out the group's long-term ambitions across four strategic pillars, which include the commitment to achieving net zero for its own emissions by 2035, while continuing to create positive impacts for the communities it serves, investing in its people and championing innovation across the aviation sector.

Comprising more than 14,300 photovoltaic panels, the development generates renewable energy to help power airport operations and reduce reliance on energy from the grid.

AGS CEO, Kam Jandu, added: "By generating clean energy on-site, we are reducing our carbon footprint, strengthening our energy resilience and creating long-term value for the airport and the communities we serve."

ADVANCING PAVEMENT TECHNOLOGY

Looking at sustainability in the wider sense, Changi Airports International (CAI), a wholly owned subsidiary of Changi Airport Group, has created a new centre of excellence to advance pavement technology.

CAI is confident that its new Airport Pavement Centre of Excellence (APEX) platform will help airports address growing infrastructure challenges arising from climate change, increasing air traffic demand, and heavier aircraft operations.

Bringing together airport practitioners, academia, and pavement specialists, CAI notes that APEX will accelerate the translation of research, innovation and operational experience into practical solutions that improve the safety, reliability and sustainability of airport pavements.





It notes that airport pavements are among the most critical assets in aviation infrastructure and that rising traffic volumes, heavier aircraft and more extreme weather place greater stress on pavement infrastructure.

CAI believes that while many airports face similar challenges, industry knowledge remains fragmented, no single pavement solution can be applied universally across different climates, materials and operating environments. APEX, it says, can address these gaps.

"As airports around the world contend with increasing intensity of traffic demand and harsher weather conditions, building resilience into airfield infrastructure has become more important than ever," says CAG's, executive vice president for engineering and development, Koh Ming Sue.

"At Changi Airport, leveraging our past 40 over years of aircraft pavement design and operating experience plus our strong partnerships with both the academia and practising industry experts, we have been taking proactive steps to strengthen performance while optimising resources in this field.

"Through the setup of APEX, we hope to continue to experiment, learn more and to share our knowledge and innovations to benefit the wider airport community and to meet evolving challenges."

AUSTRALIA'S FIRST MASS TIMBER ENGINEERED AIRPORT TERMINAL

Sunshine Coast Airport's A$170 million Terminal Redevelopment Project has reached a new milestone, with installation now underway on around 30 tonnes of timber chosen for its sustainability and environmental benefits, and reflecting the region's subtropical landscape and laid-back character.

When completed it will be Australia's first mass timber engineered terminal, creating a passenger environment unlike any other airport in the country.

As well as reinforcing the terminal's connection to the landscape that surrounds it, the use of timber over traditional steel and concrete materials reduces the terminal's embodied carbon with an estimated Global Warming Potential (GWP) saving of roughly 40 tonnes of CO_2 equivalent.

The engineered timber, known as glulam or GLT, is being installed to form the terminal's dramatic raking roof frames – a defining architectural feature designed by global architecture firm Populous: Fentress Studios' Australian team in partnership with builder McNab.

Sunshine Coast Airport's general manager for projects and planning, Robin Mace, said: "The timber frames will become one of the most recognisable features of our new terminal, and watching them go in is an exciting sign of the progress being made on this $170 million investment in our region's future."

"It's genuinely rare for an airport to use timber at this scale," said Matt Findlay, principal and head of aviation, APAC at Populous: Fentress Studios.

"Most terminals of this size rely on steel and concrete, so committing around 30 tonnes of glulam to the roof structure is a significant statement about the kind of building we wanted to create – one that feels like nowhere else in Australian aviation."

The airport notes that the terminal's biophilic design draws on people's innate connection to the natural world to help lower stress and improve wellbeing.

By replacing concrete and steel with warm, exposed timber, the terminal is expected to have a calming effect on passengers from the moment they arrive.

NEW GREEN TARGET FOR QUEENSTOWN AIRPORT

Queenstown Airport is aiming to achieve a minimum 5 Green Star rating for Airport House, the new office building under construction at the New Zealand gateway.

Airport chief executive, Shane O'Hare, believes that the NZ$23 million project reflects the airport's commitment to sustainability and world-class infrastructure.

"We want to lead by example and show what's possible through thoughtful design, innovation, and long-term thinking," notes O'Hare.

Queenstown Airport has developed its own Sustainable Building Guide and Airport House is the first project being delivered under that framework.

The 1,953 square metre building will create modern workspaces for Queenstown Airport staff, New Zealand Police and partner agencies, who currently work in multiple offices and relocatable buildings across the airport campus.

It will also incorporate an Integrated Operations Centre equipped with the most advanced technology and a dedicated Emergency Operations Centre.

AW

PEOPLE matters



The last post

After writing 75 columns over close to 13 years, Dr Richard Plenty and Terri Morrissey sign off by exploring the human challenges facing airports and the people who make them work.

When we started writing the 'People Matters' column for *Airport World* in January 2014, we were motivated by a desire to play our part in raising the profile in this area across the sector.

We had been influenced in our views by working from 2006-2013 on the transformation of DAA (Dublin Airport Authority) with Declan Collier, the CEO at the time.

'Investment in people' was seen to be as important as 'investment in infrastructure' in creating a high-performance airport. The project laid the groundwork for Dublin Airport's subsequent continuing success.

However, the people side of airports did not seem to be such a high priority in the sector as a whole. We thought this was short sighted. We felt there was too much emphasis on the systems and hardware, and not enough on people and leadership.

And we summarised this view in one of our earliest columns in September 2014 entitled 'Two journeys, not one'.

Once we started writing a regular column, our ideas began to develop much further. What began as an opportunity to explore some of the people challenges facing airports became a fascinating journey through changing times, uncertainty, technological innovation, human behaviour and global change.

We could not have imagined the many changes that our world would experience over the next thirteen years. For example, in preparing this article we asked Chat-GPT to review the 75 columns we have written and summarise them. It took a couple of seconds.

Who could have imagined that it would be possible to do that when we started thirteen years ago?

Our research shows that in our column, we have covered a wide range of topics, including recruitment, workforce planning, leadership, trust, respect, communication, performance, wellbeing, organisational culture and managing change.

At times we have focused on particular areas. During COVID we examined how people cope in a crisis, build resilience and the importance of developing strategies to stay safe.

More recently, we have turned our attention to artificial intelligence, creativity, sustainability and the implications of an increasingly uncertain world.

Other themes, however, have proved remarkably persistent. Trust still matters. Respect still matters. People still need to feel valued, listened to and connected to a purpose.

Leadership still means understanding people, communicating honestly and creating the conditions for sustainable high performance. Technology may change the way we operate, but it does not remove the need for empathy, judgement and human relationships.

One of the most interesting developments has been the widening scope of what we mean by people management.

It is no longer simply about traditional HR activities such as recruitment, training and employee relations. It encompasses the whole organisational environment: how work is designed, how people collaborate, how leaders make decisions, how passengers are treated and how organisations prepare for the future.

In short, it is about the long-term health and sustainability of the organisation. This is particularly relevant to airports. They are complex places, bringing together many different organisations, professions and cultures, all of which need to work together to deliver a seamless experience.

Behind every successful airport operation are people making decisions, solving problems, helping passengers and supporting colleagues.

The human contribution is everywhere, even when it is not immediately visible.

Writing 75 articles has also been a learning experience for us. Each one has required us to choose a subject, research it, challenge our own assumptions, agree on the message and find a way of making it relevant to readers.

Working together has involved discussion, occasional disagreement, redrafting and, inevitably, the pressure of deadlines.



We have been fortunate to have an editor willing to encourage the conversation and readers who have continued to engage with it. We have enjoyed writing the articles ourselves and expanding our knowledge.

However, all good things must come to an end. We both feel that now is a good time for us to sign off from a regular column.

The COVID pandemic brought the importance of the human connection into sharp focus, and 'people matters' have since acquired a strategic importance that they never had before. Our job in raising the profile has been done, at least for now.

Still, we hope to continue to contribute feature articles from time to time. There are fresh challenges with AI, passenger growth, environment and sustainability in the forefront that we would like to speak more about.

So what is the overarching lesson from 75 People Matters columns? Perhaps it is that people are not simply one of the resources an airport needs to manage.
They are at the core of the organisation: the source of its energy, adaptability, creativity and resilience. Buildings, technology and processes are of course important, but their value ultimately depends on the people who bring them to life.

Seventy-five articles later, our message remains: people matter — and they always will.

Our thanks to editor, Joe Bates, for his continued support and belief in our work on the People Matters column

ARRIVALS AND DEPARTURES

Metropolitan Washington Airports Authority president and CEO, **John 'Jack' Potter**, who has led the organisation through 15 years of record-setting growth, unprecedented challenges and profound change, has announced he will retire in early 2027.

Irish airport operator, daa, has named **John Coleman** as its new CEO for a seven-year term. He will take up the role early in the new year.

Former managing director of Glasgow Airport, **Mark Johnston** is the new chief executive of Edinburgh Airport. He has replaced **Gordon Dewar**, who was in the hot seat for 14 years.

London Southend has appointed chief financial officer, **Sharmeen Divan**, as interim CEO following the departure of predecessor, **Jude Winstanley**, to pursue new opportunities outside of the aviation industry.

Jackson Hole Airport has named **Kevin Bumen** as its new chief executive officer. Bumen currently serves as chief commercial officer at San Francisco International Airport and is expected to begin his new position in December.

Christchurch Airport has welcomed **Nick Astwick** and former Air New Zealand CFO, **Richard Thomson**, to its Board.

And one more thing...

If you would like a copy of all 75 articles written in the People Matters series, please contact Richard Plenty or Terri Morrissey by email at info@thisis.eu

You can learn more about their work in organisation and leadership development through their website, www.thisis.eu or www.thisisinternational.com

AW

Business exchange

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

NEW HIGH-TECH MRO FACILITY AT SINGAPORE CHANGI

ST Engineering has opened its new Commercial Aerospace airframe maintenance, repair and overhaul (MRO) facility at Changi Creek, located within Singapore's Changi Airport.

The facility is designed for a new generation of airframe maintenance, integrating digitisation, automation and AI to improve efficiency, visibility and maintenance outcomes.

Advanced digital planning systems, automated storage and retrieval solutions, robotics and electronic documentation rooms provide end-to-end visibility across the maintenance lifecycle, enabling more streamlined and data-driven operations.

Drones will perform general visual inspections with greater speed and precision, while Autonomous Mobile Robots will deliver aircraft parts directly from storage areas to maintenance bays, improving workflow efficiency and reducing manual handling.

The new 84,000sqm facility features four widebody aircraft bays, which when fully operational, will add 40% additional capacity to ST Engineering's widebody airframe MRO network in Singapore.



CLEAR CHANNEL OUTDOOR'S RENEWS CONTRACT AT FLORIDA GATEWAY

Clear Channel Outdoor Airports Division has renewed and expanded its longstanding partnership with Northwest Florida Beaches International Airport (ECP).

The agreement comes as ECP undertakes a major terminal expansion and modernisation project, creating an opportunity for CCO to invest more into the airport's advertising programme with new digital media, experiential activations and refreshed displays.

The centrepiece of the new programme will be a network of double-sided digital flags throughout the concourse, introducing dynamic content and a contemporary digital media presence that integrates seamlessly and enhances the terminal environment.

Under the new agreement, CCO will make a significant investment in ECP's advertising infrastructure over an initial three-year contract term and with the opportunity to renew.

"ECP is a market that performs well above its size, and this renewal is a reflection of what a strong collaborative partnership produces over time," said Morten Gotterup, president, Clear Channel Outdoor Airports Division.



DELAWARE NORTH CHALKS UP 30 YEARS IN PERTH

Perth Airport has celebrated 30 years of partnership with hospitality and retail operator Delaware North, recognising three decades of investment, growth and service to passengers.

The partnership began with Café Tre Volo, Delaware North's first outlet at the Australian gateway, and since then, the company has opened an average of one new venue each year, introducing new food and beverage concepts and continuing to invest in the passenger experience.

During this time Delaware North's Perth Airport workforce has grown from around 30 employees when operations began to more than 320 people today.

BORDER CONTROL

COGNITEC PROVIDES ITS VIEW ON THE FIRST 300 DAYS OF THE NEW EU ENTRY/EXIT SYSTEM

Travellers from a non-Schengen country are encountering long lines at European border checks, missing their flight connections, and worrying about their personal data. Not the best way to start a vacation, or even a business trip.

Since April 2026, the European Union's Entry/Exit System (EES) records the passport details, fingerprints, a facial image, and entry and exit dates of non-EU nationals visiting the Schengen area for short stays.

Many years of project delays should have given airports enough time to make the necessary operational and architectural changes to accommodate longer waiting times and queues. But reality set in quickly. With gradual activations of the registration processes, the lines grew longer at all larger European airports.

Collecting biometric information takes considerably longer than simply stamping a passport, particularly when a traveller is registering for the first time. Airports, airlines and border authorities have reported staff shortages, technical problems and insufficient automation.

The main challenge comes with the complexity of the technology. EES is not a single machine or database but a large interconnected European IT system. This creates considerable opportunities for technical failures or inconsistent implementation.

In addition, many travellers arrive at the border not fully informed about the system's existence and processes. Understanding who must register, provide biometrics or undergo different procedures causes confusion and many questions, all taking up long minutes at the border checkpoint.

When working properly, the EES identifies overstayers, detects identity fraud and improves border security.



With permission from the German Federal Police.

With nearly 160 million entries and exits in the first 300 days, the EU reports that the system has already helped identify thousands of people travelling under false identities or with criminal records.

But the ultimate success will depend on whether Europe can combine stronger security with reliable technology, adequate staffing, reasonable waiting times and effective protection of travellers' personal data.

Cognitec's technology helps border agencies to quickly take biometric photos, and compare them against facial images retrieved from ID documents or databases.

Talk to us about your needs for entry/exit systems and enhanced passenger processing: *sales@cognitec.com*

BAHRAIN RENEWS PARTNERSHIP WITH ANALOGIC

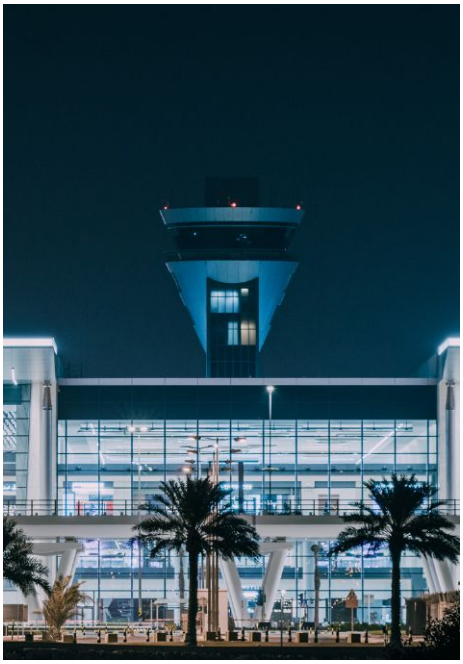
The operator of Bahrain International Airport has renewed its partnership with Leidos Security Detection & Automation UK Ltd, a member of the Analogic group of companies, for the maintenance of security screening equipment at the gateway.

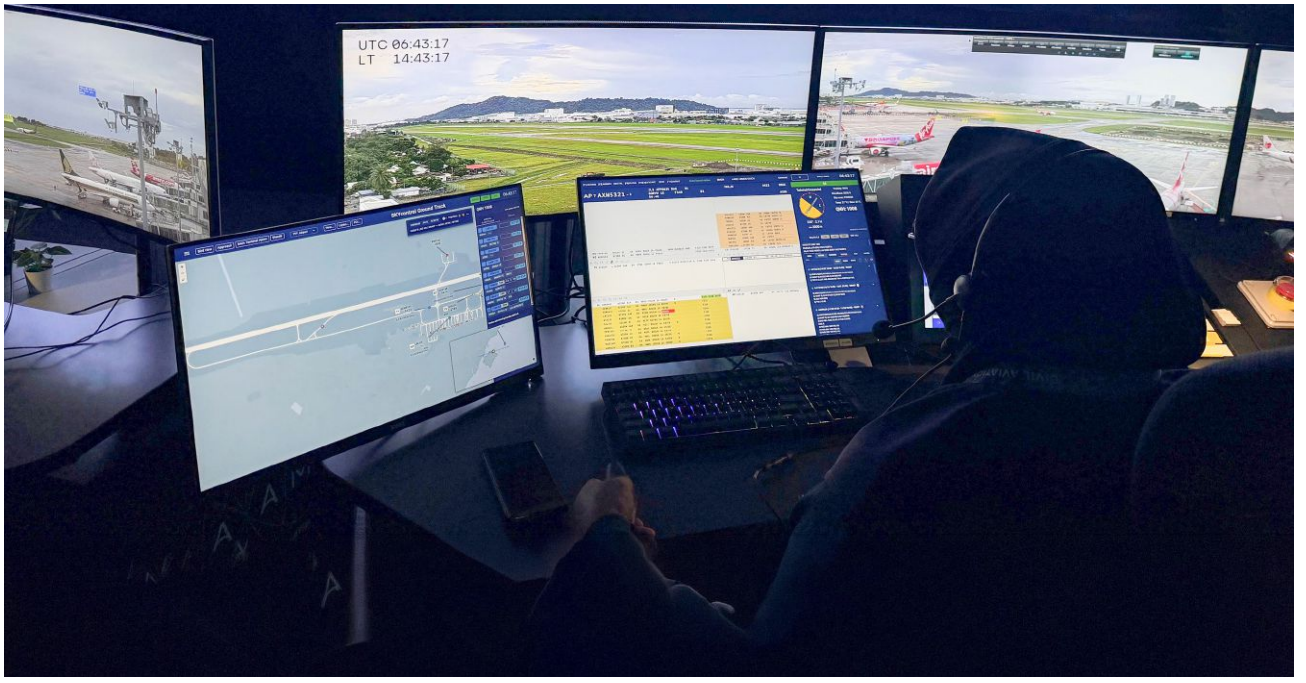
Bahrain Airport Company (BAC) CEO, Ahmed Mohamed Janahi, said: "Effective security screening is fundamental to passenger safety and operational efficiency at Bahrain International Airport.

Renewing our partnership with Analogic helps maintain the reliability and readiness of security screening equipment, supporting compliance with approved international standards and the smooth flow of airport operations.

"This collaboration also reflects our commitment to working with trusted global partners to provide passengers with a safe and seamless journey through the Kingdom's gateway."

Gunther van Adrichem, president of Analogic's EMEAI region, said: "By leveraging advanced technologies and our specialised expertise, we are committed to enhancing the reliability and performance of screening systems, supporting BAC's operational objectives and future growth."





DIGITAL AIR TRAFFIC CONTROL IN PENANG

The ISO-Gruppe has successfully completed the implementation of its electronic flight strip and ground surveillance system, SKYcontrol Tower, at Penang International Airport (PEN) in Malaysia.

With the deployment of the advanced software suite, the German IT specialist is making a key contribution to modernising and end-to-end digitalising air traffic control workflows in Malaysia.

As part of the project, the ISO-Gruppe's software solution was fully installed and integrated into the existing infrastructure.

The newly integrated Electronic Flight Strip System (EFS) completely replaces traditional paper-based flight strips. Air traffic controllers now benefit from a highly precise digital interface for the structured tracking and sharing of relevant flight data, such as estimated arrival and departure times, routes, and clearances.

"The total project duration of just 14 months demonstrates the maturity of our SKYcontrol platform and its ability to integrate into complex systems," explains Stephan Schaer, project manager and authorised signatory at ISO Software Systeme GmbH.

"This successful major project in Penang underscores our ATC expertise and serves as an important springboard for further expansion in the rapidly growing Asian aviation market."

ADOBE'S PARTNERSHIP WITH HEATHROW AIRPORT

Heathrow Airport has Adobe's agentic AI and customer experience orchestration technology at the heart of its ongoing digital transformation.

The UK hub's partnership with Adobe is designed to deliver AI-powered, personalised experiences and best-in-class customer service to Heathrow's 84 million plus passengers per annum.

According to the partners, passenger expectations for seamless, personalised digital experiences continue to grow.

Indeed, Adobe claims that its customer experience orchestration solutions will play a crucial role in helping Heathrow become more of an agentic-led organisation, ensuring they can continue to deliver exceptional customer experiences and stronger business outcomes.

The gateway's head of digital, Stephen Glenfield, said: "At Heathrow, our purpose is simple: to make every journey better, for passengers, communities and the businesses that depend on us.

"As we continue to grow, Adobe gives us the AI and customer experience technology to deliver deeper, more meaningful passenger relationships that weren't possible before.

"Working with Adobe, we are able to make sure that passengers get the right information whether they are on our website or querying via an LLM."

Heathrow's website, which receives over 50 million visitors every year, will be powered by Adobe CX Enterprise, an end-to-end agentic AI system that simplifies how businesses manage their entire customer lifecycle, from acquiring and engaging prospects to driving conversion and lasting loyalty.

It is claimed that Adobe will help Heathrow deliver more personalised, dynamic content, that is relevant and meaningful for passengers, as well as optimised for AI platforms, such as ChatGPT, Google Gemini, Microsoft Copilot and Perplexity AI.

Digital Advertisement Opportunities

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May 2026

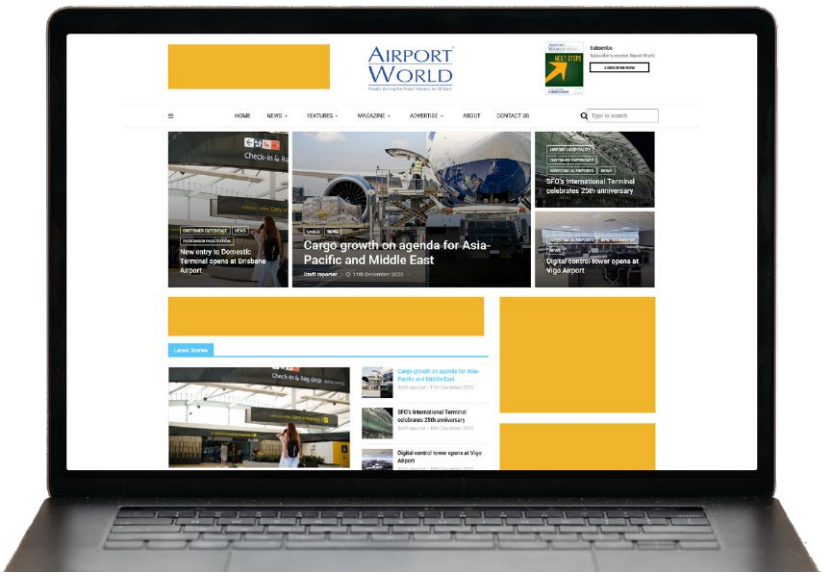
64,635 unique users

73,709 page views

150+ countries

PLATFORM HIGHLIGHTS

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THIS MAP...

uses AI to reduce inspection and maintenance reporting times by 50% at San Bernardino International Airport.



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