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Airport Profile: Copenhagen

Event Review: Artificial Intelligence in Airports & Airports Innovate

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IN THE SPOTLIGHT: **SUSTAINABILITY**

Issue 6, 2025/26

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Sustainable growth

Editor, Joe Bates, reflects on the innovation focus of recent industry events and the sustainability theme of this issue of *Airport World*.

Happy New Year to one and all. Let's hope that the next 12 months prove to be as exciting and successful as the last with innovation and growth firmly back the agenda.

Talking about innovation, I attended two industry events in the final months of 2025 where embracing new technology was front and centre, 'Airports Innovate' in South Korea, and the inaugural 'Artificial Intelligence in Airports' summit in London.

At Airports Innovate, the technologies either on display in the exhibition hall, introduced to the audience during Innovation Showcase presentations or discussed in panel sessions once again showed that we work in an incredibly inventive and forward-looking industry.

In fact some of the new technolgies and potential solutions to aviation's challenges were so inspiring that we shall feature them in future issues.

I didn't have to travel quite so far to attend the other technology focused event, *Airport World's* inaugural Artificial Intelligence in Airports summit in Twickenham, where the power of AI, recognising that artificial intelligence isn't all about replacing staff, and ensuring its safe adoption were just a few of the topics covered.

Our event, hosted in conjunction with the Egremont Group, showcased a host of technology experts, start-ups, airports and AI solution providers in a bid to create clarity, form connections, and instil commitment around the role of artificial intelligence in airport operations.

Speaking at the summit, Egremeont Group's senior consultant for airport operations transformation, Nick Crane, admitted: "AI is moving very quickly. Even some of the founding fathers don't really know where this is going to end up, or where it's going to take us.

"But don't fear, we're all in it together, and let's let this energise us, not fear us and scare us from what could be. Because we aren't the spectators in this. We are the people making this happen."

You will find comprehensive reviews of both events in this issue of your favourite airport magazine.

Innovation, of course, takes many forms and includes the hot topic of sustainability, which is the theme of this December/January 2026 issue.

In the themed section we take a closer look at Swedavia's sustainability strategy; ACI EUROPE provides a progress report on the Airport Carbon Accreditation programme; and WSP reflects on a defining year for sustainable aviation.

The section also contains features about the growing importance of good waste management and the staff recruitment challenges facing airports.

The lead airport feature is on Copenhagen Airport which has arguably just enjoyed the best year in its history.

Indeed, with the ongoing expansion of Terminal 3 gathering pace, record traffic figures, and the Danish state once again in control of its destiny, these are good times for Denmark's hub.

Elsewhere in this issue, we have a special report on the building of the new terminal at Lima's Jorge Chávez International Airport; IT innovation in Asia-Pacific; and why pop-up stores will have an important role to play in the reimagining of airport retail.

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

Companies featured in the latter include Clear Channel Outdoor, ADB SAFEGATE, Plaza Premium Group, JLL, Copenhagen Optimization, Amadeus, Cognitec, SSP Group and SITA.

AW

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Hot streak!

With the ongoing expansion of Terminal 3 gathering pace, record traffic figures, and the Danish state once again in control of its destiny, these are good times for Copenhagen Airport, writes Joe Bates.

The final figures are in, 2025 proved to be the best year ever for traffic at Copenhagen Airport (CPH) with a record 32.4 million passengers passing through its facilities.

The total, which is around 8.5% up on 2024 and 6.5% higher than its previous best of 30.3 million set in 2019, is expected to lead to a healthy 8% increase in annual revenue for the Danish airport operator.

A record-breaking summer that included months of solid year-on-year growth appears to be the catalyst for its impressive performance.

Indeed, some 9.6 million travellers passed through Copenhagen Airport in July, August and September – the highest number in the airport's 100-year history – ensuring that 24.5 million passengers used the gateway in the first nine months of the year, 8% more than in the corresponding period in 2024.

This was followed by Copenhagen Airport's busiest October, November and December on record, 2025 ending on a high when 2.46 million passengers used the gateway in December – an impressive 13% rise on the same month in 2024.

"Overall, there were 2.5 million more travellers through the airport compared to the previous year, which we are naturally very pleased with," enthused the airport's chief commercial officer, Peter Krogsgaard.

Growth on intercontinental routes was the driving force behind the upturn in traffic over the busy summer months when the 43 long-haul routes outside of Europe served from CPH led to a solid 11% rise in passenger numbers.

When announcing the airport's operational and financial results for the year to date in mid-November, CEO, Christian Poulsen, noted that the new long-haul routes had helped cement the gateway's status as a key transport hub of northern Europe offering attractive connections to destinations worldwide.

New routes launched from the airport in the final quarter of 2025 included an IndiGo service to Mumbai, a new SAS route to Tel Aviv, and Vietnam Airlines introducing a non-stop route to Ho Chi Minh City in mid-December.

Are there any more international routes coming in 2026, and does the 11 new long-haul routes inaugurated in 2025 and soaring passenger traffic mean that it was a successful year for Denmark's gateway to the world?

Poulsen tells *Airport World*: "The 100th anniversary of Copenhagen Airport was a record year with more routes and a growing number of passengers, so I am very pleased with the development.

"Copenhagen Airport is in a strong position as the leading airport in Northern Europe and an important hub.

"We have gained a wide range of new routes, and I can reveal that more are on the way. Good connections to and from the whole world opens Denmark to more tourists and visitors, helping to create jobs and growth.

"In addition, good accessibility is crucial for attracting foreign companies and labour to Denmark, just as new direct routes give Danish businesses easier access to the world. This has great value for our entire society."

As impressive as CPH's long-haul network is becoming, it should, however, be noted that European routes currently make up about 85% of its total traffic, which at the height of 2025 extended to 184 non-stop destinations across the globe.

BACK UNDER STATE OWNERSHIP

In late September, the Danish State via the Ministry of Finance acquired a controlling interest in Copenhagen Airports A/S by buying the interests of former majority shareholder ATP for $4.52 billion.

The Danish State now holds 99% of the shares in Copenhagen Airports A/S. The remaining shares are primarily owned by private minority shareholders.

At an extraordinary general meeting held on October 23, 2025, a new Board of Directors of Copenhagen Airports A/S was elected to serve under chair, Lars Nørby Johansen.

It includes former board member Lars Sandahl who returns as one of two deputy chairs. The second deputy chair is Anne Louise Eberhard who is to the board, along with Birgit Otto, Anne Skovbro Andersen, Henrik Dam Kristensen and Michael Holm.

Poulsen enthused: "I look forward to a good collaboration with the new Board and our new owner. For Copenhagen Airport, it is important to have an owner that ensures that Denmark continues to have a strong international airport with a high level of connectivity to all areas of the world. This, in turn, will also contribute positively to the Danish economy going forward."

Is there a danger though that state ownership might make Copenhagen Airports less nimble to respond quickly and efficiently to different future scenarios as governments are traditionally more bureaucratic, and slow, at making big decisions?

Poulsen replies: "Not at all. We remain a publicly listed company with a board of directors and an executive management team at the helm of the airport. The state has held a 39.2% share of the stock for several years, and since the end of September, the state owns 99% of the shares.

"I see it as a clear advantage that, with the state, we have gained a stable owner who supports our strategy for responsible growth and our ambitions for the green transition of aviation."

ONGOING EXPANSION OF TERMINAL 3

One big decision that the new owners won't have to deliberate over is the ongoing expansion of Copenhagen Airport's Terminal 3, which is progressing well and due for completion in 2027.

The project is significant as it will increase the size of the terminal by 60,000sqm, allowing for a host of new shops and restaurants, new baggage hall, improved baggage system and increased capacity for border control.

Does Poulsen expect the expanded terminal to enhance the airport experience for passengers?

He says: "It's fantastic to see the construction progressing. We are getting an entirely new area with much more space, light and air for travellers, where there will also be a small garden to step out into.

"In the new terminal area, we will open a range of exciting new shops and dining options, and I expect the entire passenger experience at the airport to be further enhanced."

SUSTAINABILITY LEADER

Like most Scandinavian airports, Copenhagen Airports is very much in tune with the Danish population's desire to limit aviation's impact on the environment and grow sustainably.

As a result, the airport set itself some ambitious sustainability targets that include achieving net zero emissions by 2030 – it currently holds Level 4+ status in ACI's Airport Carbon Accreditation Programme – and upping its recycling and waste management efforts.

In terms of becoming carbon neutral, Copenhagen Airport notes: "By 2030, we will reach net zero across our own operations, which encompasses the emissions from energy used in our buildings, vehicles and equipment.

"This means that we will reduce the emissions from our own operations by 90% compared to 2019. We will compensate for the remaining emissions by investing in carbon removal credits."

Are there any sustainability projects at Copenhagen Airport that are unusual or that Poulsen is particularly proud of?

He says: "We are well on our way to achieving our goal of net zero airport operations by 2030. Our electricity consumption is covered entirely by renewable energy from offshore wind turbines, our equipment and vehicles are continuously being electrified, and we use HVO biodiesel, which has a lower climate impact than fossil diesel.

"The transformation of aviation is a shared responsibility across the entire industry, which is why international partnerships and cross-sector collaboration is absolutely crucial.

"We saw this with the EU project ALIGHT, which has just been completed. Here, we led a partnership consisting of 17 stakeholders from across the industry. The aim was to find solutions for the sustainable airport of the future by looking at how new types of fuel can be implemented in an airport, how stands should be designed, and what role renewable energy can play in daily airport operations.

"We demonstrated that an aircraft with a 34% SAF (Sustainable Aviation Fuel) blend emits up to 30% fewer particles when taxiing to and from the gate.

"We installed a large battery system for storing green electricity, and tested how to use the power more intelligently, through advanced management.

"We compiled concrete recommendations on how airports can prepare for future aircraft powered by electricity and hydrogen. And we developed a Replication Toolbox, a toolkit that enables other airports to replicate and implement solutions from ALIGHT.

"The ALIGHT project has created significant value, and we can clearly see the benefits of joining forces with other industry players.

"This is something we prioritise at Copenhagen Airport, and we have, among other things, entered into a close collaboration with Schiphol, where we exchange experiences and knowledge in our joint efforts toward a sustainable transition." AW

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Sustainability driver

The Airport Carbon Accreditation programme plays a key role in supporting the decarbonisation efforts of airports worldwide, writes Alexandre de Joybert, director of sustainability at ACI EUROPE.

The global aviation sector is committed to achieving net zero carbon emissions by 2050, with airports playing a vital role in this transition.

As essential hubs for connectivity and socio-economic development, airports are reshaping their operations and working closely with business partners to support a more sustainable future for air transport.

Within this context, Airport Carbon Accreditation provides a globally recognised and institutionally endorsed framework for measuring, managing and reducing carbon emissions, based on internationally accepted methodologies.

Airports around the world are using this framework to implement practical measures that reduce emissions, improve energy efficiency and upgrade infrastructure, demonstrating their role not only as centres of connectivity but also as catalysts of climate action in aviation.

A GLOBAL FRAMEWORK FOR AIRPORT DECARBONISATION

Through its seven levels of accreditation, Airport Carbon Accreditation recognises that airports are at different stages of their journey towards decarbonisation.

The programme provides a structured pathway, from measuring a carbon footprint to achieving net zero emissions for emissions under the airport's direct control and engaging business partners in the transition to full decarbonisation – including all upstream and downstream sources.

It is open to airports of all sizes and business models, including those focused on cargo operations and general aviation.

Each airport faces its own set of challenges on the path to net zero, shaped by factors such as location, size, energy supply mix and local regulatory frameworks.

To date, more than 600 airports are accredited, illustrating the depth and breadth of the global airport community's commitment to meaningful climate action.

A RECORD YEAR FOR CLIMATE ACTION

The 15th year of Airport Carbon Accreditation, running from May 2023 to May 2024, was one of the most significant in the programme's history.

During this period, accredited airports collectively reduced more than one million tonnes of CO_2 from Scope 1 and 2 emissions, an amount comparable to the annual electricity consumption of over 200,000 homes.

Progress towards the higher levels of the framework also continued to gather pace. At the time of writing, a total of 106 airports have reached Levels 4 and 4+, aligning with the goals of the Paris Agreement.

Meanwhile, 30 airports have achieved Level 5, the programme's most demanding level, recognising airports that have reached net zero emissions under their direct control and committed to delivering net zero across their Scope 3 emissions by 2050 or sooner.

PROGRESS ACROSS THE WORLD'S REGIONS

The momentum for airport climate action is gaining speed across all world regions.

In Latin America and the Caribbean, Brazil's Salvador Bahia Airport is one of the latest airports to reach Level 5, becoming the first in Brazil and the Americas to achieve the programme's highest level of accreditation.

The airport has reduced more than 90% of its Scope 1 and 2 emissions and has committed to achieving net zero across its Scope 3 emissions by 2050.

Operated by VINCI Airports, Salvador Bahia Airport sets a strong benchmark and highlights the readiness for ambitious climate action across Latin America and the Caribbean.

The programme now includes 103 accredited airports in the region, making it the second-largest group after Europe.

In the Asia-Pacific and Middle East region, three more airports have reached Level 5, including Adelaide and Parafield becoming the first in Australia to achieve this milestone – as well as Chhatrapati Shivaji Maharaj International Airport in India.

With seven airports now accredited at Level 5 across India, Australia and New Zealand, and a total of 96 airports participating in the programme, the region continues to advance ambitious decarbonisation targets.

Europe remains the largest and most advanced regional community in terms of airport climate action, with 265 accredited airports.

Lyon–Saint Exupéry Airport and Nice Côte d'Azur Airport have recently reached Level 5, reinforcing Europe's net zero leadership.

In total, 22 airports in the region have attained the programme's highest level, while 58 have aligned their carbon management strategies with the Paris Agreement.

North America also continues to make steady progress, with more than 100 accredited airports strengthening their performance through mature carbon management practices and long-term decarbonisation plans.

During the 2025 ACI North America and ACI World Annual General Assembly, Conference and Exhibition in Toronto on October 27, a ceremony recognised airports across the United States and Canada for their achievements within Airport Carbon Accreditation.

Kevin Burke, ACI-NA President and CEO, said: "Airports continue to raise the bar in environmental stewardship, and I am proud to recognise this year's accredited airports for their progress.

"North American airports are advancing meaningful carbon reductions and demonstrating the practical steps our industry is taking towards a more sustainable future."

Africa recorded one of its strongest years to date, with 11 new airports joining the programme, representing growth of 30.5%.

The region also reached a new milestone as La Réunion Roland Garros Airport became the second airport in Africa to achieve Level 4+, following Félix Houphouët-Boigny International Airport in Abidjan, Côte d'Ivoire.

INITIATIVES PAVING THE WAY TO DECARBONISATION

Airports are implementing a wide range of initiatives that are reshaping operations while delivering significant emissions reductions.

Large-scale on-site solar installations specifically set for auto-consumption are a popular choice, slashing both emissions and costs by generating clean electricity for terminals, airside operations and ground support equipment.

VINCI Airports operates around 40 solar farms worldwide, while Athens International Airport now produces sufficient onsite renewable electricity to cover 100% of its needs.

Airports are also accelerating the electrification of ground support fleets. Quito International Airport, Hartsfield–Jackson Atlanta and Singapore Changi have achieved notable emissions reductions, while Brussels and Zurich airports are advancing airside mobility through autonomous electric shuttle buses.

In parallel, investments in hydrogen infrastructure are laying the groundwork for future zero-emission operations, with pilot projects underway at Schiphol, Copenhagen and SEA Milan.

LOOKING AHEAD

As the aviation sector prepares for the UN Decade of Sustainable Transport (2026–2035), Airport Carbon Accreditation remains a robust framework for guiding co-ordinated climate action.

Continued progress will depend on close collaboration between airports, airlines, policymakers, energy providers and technology developers to scale sustainable aviation fuels, expand access to renewable and low-carbon energy, deploy hydrogen-ready infrastructure and accelerate the electrification of ground operations.

The programme continues to evolve in response to industry developments, scientific evidence and societal expectations.

By providing a structured and independently verified framework, Airport Carbon Accreditation enables airports to transparently track and demonstrate their decarbonisation progress.

With more airports aligning their strategies with global climate objectives, the programme remains at the forefront of the sector's transition to net zero.

AW

Green pioneer

Head of sustainability, Therese Forsström, tells us more about the sustainability goals and achievements of Swedish airport operator Swedavia.

Does Swedavia agree that addressing aviation's impact on the environment will play the biggest role in securing aviation's licence to grow?

Yes, absolutely. Air travel enables people to meet and businesses to operate and grow – something that is essential in a geographically large country like Sweden.

A well-functioning air transport infrastructure with high accessibility strengthens Sweden's competitiveness and connects regions, industries and international markets.

Aviation helps secure growth by linking different modes of transport, facilitating imports and exports, and providing an extensive network of connections both within and beyond Sweden's borders. That is why it is crucial that we, together with our partners and the industry, continue working on aviation's transition to reduce climate impact and safeguard its long-term role in a sustainable transport system.

What are the key focus areas and goals of Swedavia's sustainability strategy?

Swedavia's sustainability strategy is part of its strategic direction – the company's compass – designed to ensure a competitive and sustainable business now and in the long-term. It aligns with owner objectives, customer commitments, and the UN Sustainable Development Goals (Agenda 2030).

Swedavia's vision for 2030 focuses on three areas: future-proofing aviation by achieving fossil-free domestic flights by 2030 and all flights fossil-free by 2045; simplifying door-to-door travel through a seamless and sustainable transport system; and creating inspiring meeting places that deliver top-class customer experiences and offer inclusive, attractive workplaces.

Do these goals vary airport by airport – i.e the targets for Stockholm Arlanda, Göteborg and Malmo are different to Kiruna and Visby?

Size and traffic numbers make no difference when it comes to sustainability. We have the same strategy and goals/targets for all ten of our airports across Sweden.

What do you consider to be your major sustainabilty achievements to date?

Swedavia's greatest sustainability achievement to date is becoming the first airport operator in the world to achieve fossil-free operations at our own airports in 2020.

Since then, we have systematically set requirements and have also made significant progress in supporting our airport partners in their transition. This is the outcome of more than a decade of dedicated work to reduce both direct and indirect emissions, from vehicles and machinery to purchased electricity and heating.

Through investments in renewable energy, electrification, biogas for buses, and renewable fuels for fire training, we have reached our goal.

In addition, seven of our airports have achieved the highest level of ACI's Airport Carbon Accreditation programme (Level 5), meaning zero

emissions from our own operations and a plan for the entire value chain to reach net zero by 2050.

The remaining three airports will be certified during the year. This is an important step in the climate transition and demonstrates that we are leading the way toward fossil-free aviation.

Are the airlines onboard with Swedavia's SAF incentive schemes?

The response has been very positive. Swedavia's SAF programme has been well received by the airlines and has been utilised during the years we have run the programme.

Sustainability isn't just about the environment, it's also about having the facilities, financial power, route networks and staff to continue to operate and grow. Is staff recruitment an issue in Sweden?

Skills supply is a high priority, and we recruit continuously based on existing competence needs. As an example of our efforts, Swedavia is organising a series of Recruitment Days for the fourth consecutive year together with the airport's partners. The purpose of the initiative is to create a meeting place between Swedavia, our partners, and potential employees.

Can you tell us more about your green financing initiatives?

Swedavia's green bonds are issued under the company's existing Medium Term Note (MTN) programme, with the purpose of financing investments and projects related to climate transition and sustainability.

Our green framework has been designed in line with industry standards – the Green Bond Principles and Green Loan Principles. Furthermore, the framework has been reviewed by CICERO Shades of Green AS, which highlights Swedavia as a global role model for airports and gives the framework's governance structure the highest rating – 'Excellent'.

STOCKHOLM ARLANDA ADOPTS NEW AIR TRAFFIC APPROACH CONCEPT

In Q4 of 2025, Stockholm Arlanda and Luftfartsverket (LFV) became the first in Europe to introduce a new air traffic approach concept.

The new concept is commonly referred to as Established on RNP (EoR) and makes it possible for aircraft arriving at Stockholm Arlanda Airport to fly with curved approaches to a greater extent than before.

The concept is seen as an important step towards increasing the capacity, efficiency and sustainability of air traffic.

"For us, it is of course gratifying that Swedavia will be the first in Europe to apply the new concept for managing arrivals," notes Susanne Norman, currently the interim president and CEO of Swedavia.

"Enabling more curved approaches is also the most effective way to support airlines in their transition work, in addition to facilitating increased use of sustainable aviation fuel (SAF)."

The new approach concept allows the airport to increase the landing rate per hour and reduces emissions, both for the aircraft flying the shorter, curved approach and for those flying the standard instrument landing approach.

This is because fewer aircraft have to use the runway dedicated for arrivals, reducing the queue for that runway. To be able to fly curved approaches, airlines must have a special permit from their National Supervisory Authority.

"The modernisation of the airspace by Luftfartsverket shows how air traffic control can help reduce the environmental impact of aviation," says LFV's director of operations, Anna Granberg. "The traffic flow into Stockholm Arlanda Airport becomes more efficient during peak hours, and arriving aircraft have shorter flight paths with reduced emissions."

AW

Sustainable recruitment

Kully Sandhu, managing director of Aviation Recruitment Network, considers what needs to be done to restore confidence in careers in aviation.

Sustainability is more than carbon targets and greener infrastructure; it's about building resilient teams to deliver reliable operations through cycles of growth and disruption.

Before the pandemic, aviation was viewed as a stable, long-term career path. That perception was shaken when large-scale redundancies and uncertainty hit the headlines, and while passenger numbers rebounded, candidate confidence has not fully followed suit.

In recruitment, that gap matters. A sustainable airport workforce depends on restoring trust, modernising hiring practices, and broadening leadership perspectives to attract people not just for a job, but for a career.

Across the UK, we see hesitancy among candidates, especially for entry-level and shift-based roles. Many prioritise work life balance, predictable rosters, work-from-home initiatives and proximity to home.

Others have moved into sectors that offer comparable pay without the complexity of vetting or unsociable hours, with retail, logistics, distribution, and hospitality among them.

The result is a tighter talent market precisely where airports need capacity most: customer-facing roles, logistics, facilities, cleaning, retail and hospitality teams.

Restoring the appeal of airport work requires clear progression routes, improved scheduling, smarter travel-to-work solutions, and employer value propositions that speak to purpose, including sustainability.

THE AIRPORT JOB MARKET, THEN AND NOW

Pre-COVID, aviation's proposition centred on stability and pride in a mission-critical service. That narrative was interrupted during the pandemic.

Even as airports scaled back up, many candidates continued to associate the industry with unpredictability, and they became more discerning about contract types, guaranteed hours, and the pace of hiring.

Lengthy background checks and security clearances, while essential, have become choke points in a competitive labour market. When vetting stretches over weeks, candidates can accept offers elsewhere; by the time approvals land, too many hiring processes end with "we lost them."

There are also geographic realities. Several UK airports sit outside dense talent catchments, where public transport is limited (especially during unsociable hours) and some employers cannot offer free parking.

Factors, like these, compound the challenge of attracting early-career staff or those on lower incomes. In locations affected by clean-air zones or limited parking, the cost and complexity of commuting at 4am for a shift becomes a deterrent.

Add seasonal peaks, unplanned disruption, and pay competition, and you get a recruitment environment that feels perpetually urgent, critical and reactive.

At the senior end of the market, the picture is different, but related. Airports need leaders who can blend operational excellence with digital transformation, commercial resilience, and credible environmental stewardship.

Where once the default was 'aviation only,' today we often see searches that include high-performing executives from retail, rail, hospitality and logistics sectors that specialise in customer-centric operations at scale, data-led decision-making and tight cost discipline.

PRACTICAL STEPS TO ATTRACT AND RETAIN STAFF

Sustainable recruitment starts with a frictionless and accessible employee experience. This includes reducing time-to-hire and improving the candidate journey.

Airports must streamline application journeys and unify communication across HR, recruitment, and vetting teams. Too often, fragmented systems and paper processes stall momentum.

A modern, mobile-first experience with clear timelines, realistic job previews and regular updates keeps applicants engaged through background checks and onboarding.

Shared talent pools. Competitiveness within the same airport often undermines efficiency. Multiple employers chasing the same candidate pool creates duplication and delays, with applicants submitting to several vacancies simultaneously.

Instead of building a shared talent pipeline, airports risk fragmenting into isolated silos. This results in wasted time, increased costs, and erodes candidate confidence.

Make rosters work for people. Predictable shift patterns, shorter night cycles, and more frequent weekends off go a long way towards restoring trust in airport roles.

Where high volumes are needed, flexible models including part-time, term-time, or job-share arrangements can open doors to under-represented groups without compromising security or safety.

Travel-to-work initiatives. Shuttle buses designed for rosters, discounted parking, or partnerships with local transport providers remove a major barrier to entry.

In out-of-town locations, in particular, these measures can broaden talent pools and reduce attrition linked to logistics rather than satisfaction.

Pay competitively and communicate progression. Airports should benchmark locally and be transparent about pay, skill uplifts, and promotion opportunities.

Entry-level jobs feel more like the start of a career when candidates see a clear roadmap, including training, certifications, and mobility.

Integrate sustainability into the employer value proposition. The next generation cares deeply about environmental and social impact.

Airports can connect sustainability goals to daily roles by implementing waste reduction initiatives, energy-efficient operations, or community programmes. That clarity of purpose helps win hearts and minds, not just CVs.

Embrace technology to manage talent pools at scale. From modern CRMs to talent analytics, airports should build and nurture candidate communities rather than starting from scratch each hiring cycle.

Close partnerships with agencies experienced in regulated, high-volume environments enable proactive pipelining, faster redeployment, and data-driven decision-making.

Finally, we must acknowledge the 'hidden cost' of recruiting. Re-advertising, repeated vetting, and lost productivity during backfills can dwarf the perceived savings of doing everything in-house.

Sustainable hiring means investing in partnerships and measuring success not just by cost-per-hire, but by retention and performance.

LOOKING BEYOND AVIATION

Is hiring outside the industry for top jobs increasingly common? Yes, and with good reason. Airports need leaders adept at orchestrating complex, customer-centric operations while delivering measurable progress.

Leaders coming from a retail, logistics, rail or sustainability focus, for example, can lend expertise in areas such as safety culture, asset reliability, continuous improvement, customer feedback loops, embedding carbon reduction into procurement, employee engagement and more.

Cross-industry hiring works best when airports pair fresh perspectives with deep aviation know-how. Blend the two and you get leadership teams that respect operational realities while innovating within them.

That combination of new thinking grounded in safety and compliance is a hallmark of sustainable leadership in our sector. AW

AVIATION RECRUITMENT NETWORK

Aviation Recruitment Network (www.arnl.co.uk) has been supporting UK airports and aviation businesses for over 25 years. From high-volume ramp-ups to complex vetting cycles and senior leadership searches, it helps clients build talent strategies that deliver operational resilience and long-term workforce stability.

Turning food waste into fertiliser at PIT.


Image courtesy of Nathalia Segato/Unsplash.

Waste control

The heightened scrutiny of sustainability and cutting through green washing is increasing pressure on airports to step up their waste management efforts, writes Emma Cooke.

The modern airport is a complex ecosystem of waste streams involving everything from leftover food, F&B packaging and plastics in the terminal to potentially hazardous materials used on the airfield.

Getting rid of all that waste in a sustainable way in a daily challenge, and as the aviation industry faces growing environmental scrutiny and tighter regulations, airport waste management has to become even more of a priority for airports in the coming decades.

Airports are, of course, highly regulated, security-sensitive environments with multiple users generating waste in different ways and, arguably, this reality makes engaging the expertise of specialist waste-management companies essential to meeting sustainability goals.

Indeed, I would argue that working with waste and tech specialists can create and deliver achieveable circular economies for airports at the same time as reducing emissions and cutting costs.

AN ARRAY OF WASTE CHALLENGES

Airport waste is far from linear. Passenger and terminal waste is often a contaminated mix of food, packaging and single-use plastics.

But it also includes aircraft waste, including used PPE and cleaning materials that can pose hygiene risks, and maintenance waste such as oils, batteries, tyres and e-waste which require specialist handling and high-purity recycling routes.

Retail and commercial outlets add another layer of difficulty, generating cardboard, plastics and surplus stock that often falls outside organised recycling systems.

These challenges are made harder if airports have limited space for segregation, unclear responsibility boundaries between internal parties and rapidly rising regulatory demands for traceability and transparent reporting.

WASTE CHAMPIONS AND EDUCATION

Effective segregation and waste management is a crucial component of airport waste management, requiring a thorough understanding of all the types and volumes of waste generated.

A comprehensive waste audit is essential to identify opportunities for waste reduction, reuse for a circular strategy, and more efficient handling, helping operators to optimise processes and minimise environmental impact.

The challenge many airports are finding is that they don't have the time or resources to fully review all waste streams and root causes of waste production, leaving them using older operating models or working reactively to problems as they arise.

KEMPEGOWDA'S INTEGRATED SOLID WASTE MANAGEMENT CENTRE

Bengaluru's Kempegowda International Airport (BLR) has inaugurated its own in-house Integrated Solid Waste Management Centre (ISWMC).

The facility is said to strengthen scientific waste processing and circular economy practices across the airport ecosystem, reinforcing the airport's commitment to responsible growth.

As one of India's busiest airports, BLR generates approximately 24–26 tonnes of solid waste per day across terminals, airside operations, commercial outlets and allied facilities currently.

The ISWMC enables scientific, end-to-end waste processing at source, enhancing operational control, reducing reliance on external handlers, minimising transportation-related environmental risks, and contributing to lower emissions, improved compliance, and greater operational resilience.

With the facility in place, the airport expects to reduce landfill disposal to 2–3% of its total waste, enabling 97–98% of waste to be recycled or recovered through in-house processes and authorised partners.

Designed with a total processing capacity of 77 tonnes per day (TPD), the ISWMC is designed to manage both organic and inorganic waste streams.

Organic waste, up to 50 TPD, is treated through bio-methanation technology, converting biodegradable waste into compressed biogas (CBG) for use in airport kitchens, along with liquid organic manure and compost to support landscaping requirements.

The remaining 27 TPD of inorganic waste is processed through advanced segregation systems, with recyclables directed to authorised recycling partners and recoverable material utilised for co-processing in the cement industry.

Hari Marar, managing director and CEO of airport operator, BIAL, enthused: "As a rapidly growing airport, we are conscious of the responsibility that comes with managing our environmental footprint.

"The Integrated Solid Waste Management Centre strengthens our ability to manage waste at source, transform it into a resource, and embed circular economy principles into everyday operations. This initiative reinforces our commitment to resilient infrastructure and responsible growth as we scale for the future."

Robust segregation of hazardous waste is also essential to avoid cross-contamination and enable effective recycling or treatment.

By accurately separating waste streams each type can be managed and tracked according to its specific regulatory and environmental requirements.

Education is also key. All employees must understand the importance of waste separation and how to do it correctly. It is crucial to provide staff with adequate training on waste identification, segregation, and proper handling procedures.

This also ensures that all employees within your business can identify opportunities for re-use, the first step to creating a circular system.

APPLYING CIRCULAR ECONOMY PRINCIPLES

A circular economy approach offers airports a practical path forward by keeping materials in use for longer through optimised segregation.

Prioritising re-use options can lower disposal costs, reduce carbon emissions from collection and associated waste operations, improve regulatory compliance, and deliver cost savings.

While closed-loop schemes for items such as catering equipment and airline textiles must be tightly controlled, limiting re-use possibilities, organic waste can be composted and requires less emphasis on re-use strategies.

Digital tools and traceability systems, supported by waste specialists, can monitor volumes and contamination across airport operations, helping to build a stronger waste network across airports.

GAINING AN ADVANTAGE

Waste-management specialists play a pivotal role in creating circular, cost effective strategies within airports.

Independent expertise ensures all waste is mapped and handled correctly, whilst pinpointing potential contamination before it has happened.

The right waste partner can also unlock high-quality data and waste tracking, AI-driven sorting, digital classification and real-time monitoring to provide clear visibility across complex operations, enabling airports to assess performance, identify inefficiencies and progress with confidence.

FROM BURDEN TO OPPORTUNITY

Airports face unique waste challenges, but they also have unique opportunities to create large-scale sustainable hubs.

By embedding circular economy principles and partnering with specialist waste-management providers, airports can transform waste from an operational headache into a source of environmental and commercial value.

In a sector striving for sustainability, smarter waste management is fast becoming a runway to long-term resilience. AW

About the author

Emma Cooke is operations manager with waste and tech specialists at *Envirovue*.

Flightpath to **net zero**

WSP UK's Dr Catherine Wilson, reflects on a defining year for sustainable aviation and a handful of sustainability experts give their views on what may be on aviation's agenda in 2026.

The UK's first Sustainable Aviation Fuel (SAF) mandate, EU hydrogen hub plans, electric planes in commercial trials, and airports embracing AI-driven energy efficiency ensure that 2025 was a defining year for sustainable aviation.

This feature will explore 2025's key developments and seek expert views on 2026 trends as the focus shifts from 'if' to 'how fast' aviation can decarbonise.

SECTOR POLICY AND TOOLS TO SCALE IMPACT

Last year saw new milestones with ACI's Airport Carbon Accreditation programme, the only global, independently verified carbon management scheme for airports.

Salvador Bahia (Brazil) became the first airport in the Americas to achieve Level 5 (operational net zero with a validated Scope 3 plan), while Adelaide and Parafield were Australia's first.

Thirty airports now hold Level 5 certification. ACI also tightened the programme's rules, requiring airports to move beyond Level 1 (basic measurement) within three years – driving emissions reduction.

In August 2025, ACI launched its ESG Global Reporting Framework, a standardised tool aligned with global disclosure standards (GRI, ISSB) to improve transparency and access to sustainable finance.

ICAO's 13th CAEP meeting in February delivered 31 technical and policy outcomes, including stricter CO2 and noise standards, accelerated SAF certification, enhanced operational efficiency, and a new global CO2 monitoring framework – all set to shape fleet choices, fuel procurement, and infrastructure investments before 2030.

While at COP30, ICAO reaffirmed its net zero roadmap, urging faster SAF scale-up and global CO2 monitoring.

IATA pushed for full CORSIA and Article 6 markets, while the Sustainable Aviation Buyers Alliance, backed by Airbus, launched a SAF certificate platform.

LEGISLATION MILESTONES: FROM PLEDGE TO COMMITMENT

Last year moved sustainable aviation from policy intent to binding obligations – setting minimum SAF shares, codifying next-gen propulsion airworthiness, and testing funding mechanisms that make decarbonisation investable.

EU and UK SAF mandates, effective in 2025, created the first co-ordinated, binding SAF market – aligning supply, reporting, and penalties, with ETS and SAF certificates cushioning early costs.

The EU's ReFuelEU Regulation requires 2% SAF in 2025, rising to 70% by 2050; the UK mandate starts at 2%, rising to 22% by 2040.

Early adoption highlighted the need for certificates, book-and-claim systems, and strong policy support for power-to-liquid fuels.

In January 2025, the EU Commission adopted Regulation 2025/111/EU, updating its airworthiness and maintenance rules to cover electric, hybrid, and future hydrogen-electric aircraft.

In November, Singapore announced the world's first national SAF levy for 2026, piloting a cost-sharing model to underwrite SAF purchases.

The mandatory levy (S$1 to S$41.60 per passenger) applies to tickets sold from April 1, 2026, for flights departing on/after October 1, 2026, with proceeds ringfenced in a SAF Fund.

On 5 November, the EU launched its Sustainable Transport Investment Plan (STIP), committing €2.9 billion through 2027 to accelerate renewable and low-carbon fuel production for aviation.

FUEL SUPPLY AND INDUSTRIAL MOMENTUM: SAF SCALES UP

For airlines and airports, new EU and UK SAF mandates mean sustainable fuel is no longer niche – it's part of everyday planning.

This shift drives long-term supply agreements, fuel infrastructure upgrades, and closer supplier collaboration.

Global SAF output increased in 2025 as new plants opened. North American production nearly doubled, with growth in California and Texas, while Europe and Asia-Pacific expanded supply.

However, volumes remain small, but investment is rising and early risks easing.

In addition IATA's 2025 analysis showed the main bottleneck is slow SAF technology rollout, not feedstock.

LanzaJet's Georgia plant proved commercial-scale ethanol-to-jet SAF is viable, while Düsseldorf Airport signed an MoU for the first DAC-to-SAF facility, targeting 250 t/year synthetic jet fuel.

INNOVATION DEVELOPMENTS: ELECTRIC AVIATION

Arguably, 2025 marked the year electric flight moved from concept to early adoption, with passenger demonstration flights and cargo trials proving that zero-emission aviation is no longer just an idea.

Advances in battery technology, lightweight materials, and hybrid propulsion are enabling cleaner, quieter, and more efficient flight.

However, challenges remain – limited range, charging infrastructure, certification hurdles, and high development costs.

In June, Beta Technologies Alia CX300 became the first all-electric aircraft to complete a passenger – runway to runway – demonstration flight at New York's JFK Airport.

In August, Avinor and Bristow Norway created a regulatory and infrastructure testbed for net zero and low-emission aviation at Stavanger Airport, where the Alia CX300 completed a landmark electric flight.

And in November, Air New Zealand launched a four-month operational proof-of-concept using the Alia CX300 for small cargo flight trials.

INNOVATION DEVELOPMENTS: HYDROGEN AVIATION

Last year saw hydrogen aviation move from concept toward readiness, with concentrated 'hydrogen hubs', major steps in propulsion technology, future aircraft, airport infrastructure, and regulatory frameworks.

In March, Airbus selected fuel-cell propulsion as the core technology and expanded its Hydrogen Hubs at Airports Programme and, in June, it signed an MoU to co-develop hydrogen fuel-cell engines with MTU Aero Engines.

ZeroAvia launched a sector-wide advocacy framework for infrastructure, regulation, policy, and investment.

In Europe, Hamburg Airport in Germany unveiled its HyAirport roadmap and Rotterdam The Hague Airport in the Netherlands opened one of the continent's first liquid hydrogen refuelling stations.

Meanwhile, in the southern Hemisphere, Christchurch Airport in New Zealand completed a world-first integrated liquid hydrogen refuelling exercise.

A University College London (UCL) study in December showed that focusing investment at 20 major European hubs could deliver over 80% of hydrogen aviation's emissions benefits.

During the year EASA and the EU Commission published the European Aviation Environmental Report 2025, keeping zero-emission propulsion, including hydrogen, within the technology roadmap.

The EU set a 70% lifecycle Greenhouse Gas (GHG) threshold for low-carbon hydrogen and fuels.

INNOVATION DEVELOPMENTS: AIRPORT AND AIRLINE OPERATIONS

Transformative sustainability projects in aviation during 2025 included Copenhagen Airport leading with AI-powered APU emissions monitoring and Frankfurt and London Biggin Hill trialling world-first bio-based apron surfaces.

Elsewhere, in New York, John F Kennedy International Airport's Terminal One launched the first centralised electric ground support fleet; easyJet trialled lightweight paint; and Queen Alia International Airport won an award for AI-powered smart cleaning.

WHAT CAN WE EXPECT TO SEE IN 2026?

So, what can we expect from 2026 in terms of sustainability trends/developments? A handful of sustainability experts give their views on what may be on the agenda for airports in 2026.

Claire Waghorn, Christchurch International Airport's sustainability transition leader believes that looking at infrastructure-readiness for hydrogen and electric planes will gain traction in 2026.

She says: "This is a key year for airports to learn, plan, and prepare for low-carbon aircraft.

"With electric planes for short routes and hydrogen for regional routes, 2026 offers an excellent chance to collaborate and learn from Demonstrator pilots. Early action builds infrastructure, regulatory know-how, and primes airports for future airline support and revenue."

Celeste Hicks, policy manager for the Aviation Environment Federation – the principal UK NGO campaigning on aviation's impact for people and the environment – notes that 2026 will be a big year for airlines to step up their Corsia Offsetting efforts.

"One policy area, on the horizon in 2026, which will have an impact on airlines is the ICAO Corsia Scheme, whereby airlines will face their first offsetting obligations, covering emissions growth beyond 85% of 2019 levels," says Hicks.

"Governments will notify carriers by end-2025, with compliance due by 2028 through credit purchases. While Corsia only focuses on offsets rather than actual reductions, its survival amid global challenges could signal progress toward meaningful aviation emissions cuts."

WSP India's Shuchita Garg, an ACI-qualified verifier for Levels 1-3+ of the Airport Carbon Accreditation programme, says: "The next 12 months will be pivotal as ISO and GHG Protocol collaborate through a joint working group to co-develop a global product-level GHG standard.

"Drafts are expected throughout 2026, with finalisation likely by late 2026. This will enhance consistency in carbon measurement and inform future Airport Carbon Accreditation requirements. Airports should align systems now; early engagement will reduce compliance costs and position them as leaders in transparent climate reporting."

Christopher Imbsen, vice president for policy at the World Travel & Tourism Council (WTTC), notes that 2026 will see the launch of the EU's first-ever EU Sustainable Tourism Strategy.

He says: "Launched in early 2026, the EU's first-ever Sustainable Tourism Strategy aims to make tourism more sustainable, competitive and locally beneficial.

"For airports, this creates opportunities to act as low-carbon mobility hubs, investing in SAF infrastructure, improving multimodal connections, accessing green finance, and supporting airline decarbonisation while strengthening community value and resilience." AW

GLOBAL CONSULTANCY AND VERIFICATION SERVICES

WSP is an award-winning global leader in environmental consultancy and former Programme Administrator (2009–2024) of the ACI-owned Airport Carbon Accreditation programme, supporting 600+ airports in 88 countries.

Its global network of Airport Carbon Accreditation and carbon specialists support airports at every stage, from Level 1 certification to achieving operational Net Zero at Level 5 with services that include Strategic journey mapping and readiness assessments; Application preparation (planning, data gathering, conformance checks, submission); Multi-year consultancy, training workshops, and pre-screening to minimise non-conformities; Technical advisory on carbon reporting, management plans, target setting, stakeholder engagement; and Verification for Levels 1–5, offering impartial, third-party assurance globally.

You can find out more about WSP by clicking the following link *https://tinyurl.com/zvbbpvdf*

About the author

Dr Catherine Wilson is WSP UK's sustainable aviation and tourism specialist. WSP researchers Soumya Sudhakaran, Nidhi Pancholi and Vishwas Magadal helped in the production of this article.

Dawn of a new era

The power of AI, recognising that it isn't all about replacing staff, and ensuring its safe adoption were just a few of the topics covered at the inaugural Artificial Intelligence in Airports summit in London.

A host of technology experts, start-ups, airports and AI solution providers gathered in Twickenham in London in December for the inaugural Artificial Intelligence in Airports summit.

Hosted by *Airport World* and the Egremont Group, the event set out to create clarity, form connections, and instil commitment around the role of artificial intelligence in airport operations, and it didn't disappoint.

Indeed, many opinions were shared and much was learnt at the summit, including the revelation from one speaker that they know some airport CIOs who struggle with their home Wi-Fi!

The summit began with a welcome address from Nick Crane, Egremont Group's senior consultant for airport operations transformation, who emphasised the transformative potential of artificial intelligence in reshaping airport operations and passenger experiences.

He was also quick to note that successful AI adoption depends not only on technology but also on leadership, timing, flexibility, and openness to change.

"AI is moving very quickly. Even some of the founding fathers don't really know where this is going to end up, or where it's going to take us," Crane told delegates.

"But don't fear, we're all in it together, and let's let this energise us, not fear us and scare us from what could be. Because we aren't the spectators in this. We are the people making this happen.

"We decide how airports will be reshaped by new technologies. In this room today, we've got operators, innovators and strategists. We're the ones who are running the world's most complex operations day-to-day. We aren't the people who should be shying away from this. We are the ones who are building it, and we have a say in how this will go.

"AI is already here. It's been here for many years, many decades, in fact, far earlier than most people believe and understand. But it's more accessible now, it's more visible, and it's reshaping not just how behind the scenes operate, but how we all function and engage with services.

"It's not just about the tech, it's about people, the processes and how we lead. It's the leadership, it's the energy, it's the timing, and it's

also the flexibility, not being too rigid, but also being open to what's new and what's possible.

"AI is already changing the expectations of passengers. It's redefining how we expect things to happen, what we want and what value looks like."

He was followed by Nikola Loncar, a self proclaimed 'freelance technologist' and former chief software engineer who stressed the importance of picking the right AI tools for specific tasks and understanding their limitations.

These tools, he explained, included machine learning, deep learning, large language models (LLMs) and Generative AI.

Loncar also discussed the evolution of artificial intelligence, its practical applications, limitations, and the importance of strategic leadership, infrastructure, and collaboration in implementing AI responsibly and effectively.

Key points included the importance of selecting the right AI tools, understanding their limitations, and integrating them into broader systems. Addressing the the capabilities and challenges of large language models (LLMs), Loncar – head of engineering at CleverChain – pointed out their inability to perform precise calculations, non-deterministic nature, and potential to hallucinate.

He said: "AI is not a silver bullet. There are still significant trade-offs to be considered when choosing your AI tools, or even if you use them at all. You know, what is the relative performance compared to other tools, especially non-AI. If you look at the cost per task and outcome, are you still getting a good deal?

"And also, very importantly, how much effort will it take to maintain it, especially in comparison with alternative options? Pick the right tool for the job."

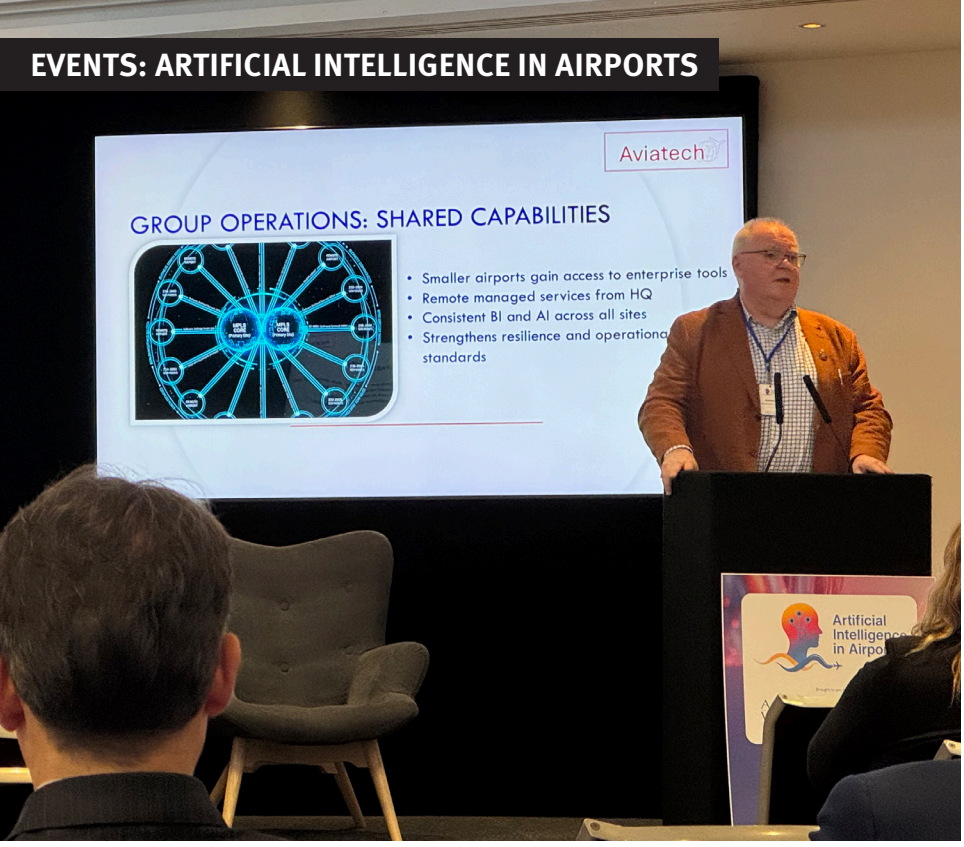
Next up was Auj's chief technology and information officer, Brian Roche, who discussed the integration of AI in airports, emphasising the importance of data centres in powering AI and cloud services, and the need for airports to take control of their data and infrastructure to achieve better outcomes and improve efficiency.

He noted the potential for using AI to improve the passenger experience and boost non-areonutical revenues, highlighted the challenges of siloed procurement, and the need for a unified approach to using machine learning and software-defined networking (SDN) to improve the conectivity of the whole airport.

He also discussed the potential of biometric systems, such as India's Digi Yatra facial recognition system, and the benefits of using low-power networks like LoRaWAN for cost-effective sensor management.

In addition, he warned of the risks of going for quick fixes and outsourcing contracts where airports weren't in control of their own data as taking control of the data and infrastructure would achieve better outcomes and improve efficiency.

He said: "Maybe I'm a bit too practical, but I look for profit. I look for return on investment. So, what we look for as a company is to ensure that the clients own their own network, and that's the whole network, everything. Facilitation, everything, black box solutions.



"Think of those people that run Heathrow and Gatwick right now, the operational systems, the black boxes. You guys don't own the data, the outsourcer does."

Giving an example of the savings that could be made by making better use of technology, Roche said: "I can give you some realistic stuff here. Take an airline with a fleet of 900 airplanes. If you can save them one minute on their flight, one minute on their turnaround, at a conservative shout you could save them $50 million a year.

"You could push it higher, because what we never do is measure the benefits. We measure a solid number, which is the cost of the turnaround, which is the cost of maybe losing a slot. But actually, when you look at the fuel that can be saved, when you look at the cost of the electricity, because obviously we've got chillers to the airplane and condition of power, it's about $90 million a year, just for a one-minute saving, across the entire fleet."

Giving another example of why airports need to be more on top of and in control of the technology installed in their facilities, Roche revealed that although sensors cost as little as £75 to install in an airport, it can cost upwards of £7,000 to replace each one due to the equipment and manpower needed to do the job.

And a big international airport may have as many as 22,000 sensors that do everything from monitoring passenger flows, enhancing security operations and sending messages to passengers to heating or cooling buidings across the airport campus.

"You can guarantee that 5% of an airport's sensors are out at any one time," he noted. "Why? Because the contracts were bought in silos, and they were on 15-year contracts. Five years parts and labour, the first five years. Second one was parts only. Third one is call us and we'll do a call out for you.

"So, what happens when you've got 22,000 sensors and you've got 5% or 10% of them out. The cost of repair is staggering."

The first panel of the day was an all-airport affair that comprised London Gatwick's security technology specialist, Anthony Parker; Teeside Airport's managing director, Phil Forster; and Dublin Airport's head of capacity planning and analytics, Roidin Crowley.

And, as you would expect, the discussion focused on AI deployments in aviation. Dublin Airport is using AI for its short-term forecasts, Phil Forster revealed that Teeside Airport is a test bed for cargo and logistics technology, and London Gatwick's Parker looked at the challenges and opportunities of AI from a security perspective.

Dublin's Crowley admitted that her airport was "fairly immature" in the implementation of AI installations, although one of the things it does use it for is to make short-term forecasts.

"It's the biggest success we've had with AI to date," she enthused. "We get our forecast yearly for the budget, and we use machine learning to get a 30-day short-term forecast.

"It has an awful lot of inputs from the operation. But then it also brings in recent trends in terms of presentation times, different passenger profiles, and all of the booking information, and predictive booking information from the airlines as well.

"It's working really well. It learns from the passengers and by terminal, so that's absolutely made our forecast perform an awful lot better. Before, we had a kind of 7% swing either side in terms of the numbers, whereas now it's within 2%. So big credit."

Crowley revealed that the airport operator also uses machine learning algorithms to predict staff performance and optimise staffing levels.

She noted that the regulatory environment in Ireland limited the use of AI in threat detection at security lanes.

Teeside Airport's Forster explained how his airport is located within Teeside Freeport, and this has led to it becoming a 'digital trade testbed' for new technologies such as autonomous vehicles and cargo and logistics software/equipment to enhance operations, particularly to six Amazon fufilment centres within 10 miles of the gateway.

From a security perspective, Gatwick's Parker revealed that the heavily regulated nature of security meant that the gateway could only use AI for the things that it has control over, which he noted was very limited.

"Basically, we look at things like staff on screen, understanding how many lanes we need to have open, and how many people are needed on each lane, all of which is very important as we actually get fined by the CAA if our queues become too long," said Parker.

"So, just by being able to invest in AI to help develop the model and to make the models better by having the right number of people on at any particular time, saves money in itself.

"The biggest area where we'd like to see AI come in is in the areas where we don't have control, and that's on algorithms that could automatically detect threats.

"The development of neural networks and machine learning means that there's a lot of algorithms out there now that will look at the X-ray image and identify a threat. They can do the job of a screener, but because it's a regulated area, and the government actually owns the risk, although we are using machine learning to train the algorithm, once the government tests that algorithm, it's no longer using AI.

"So, every time it makes an error and says that something is a threat and it isn't, it's not allowed to learn that, so it just stays in place until we give data to the manufacturer. Then, they have to go through a process of retraining, then reapplying to the regulator for testing, then that has to get approved.

"So, whether we'd like to see automation come in, between an algorithm being deployed and a new algorithm coming in, it could be a year, and in that year, you've just got all this data that's not being used."

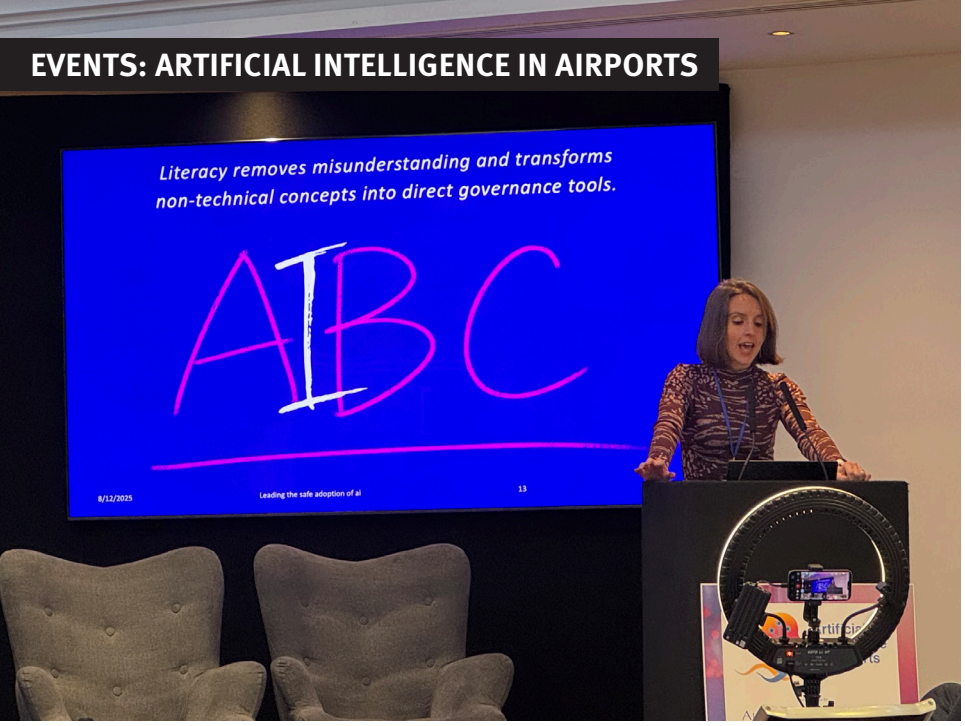
Talking about some of the biggest potential benefits of AI for Dublin Airport, Crowley said: "For me, the biggest opportunity we have with AI when it comes to security is for people profiling. Whether that's using sensors or training CCTV to pick up whether you're a passenger, a security officer or member of staff, for example, among the swarm of people that arrive in the airport.

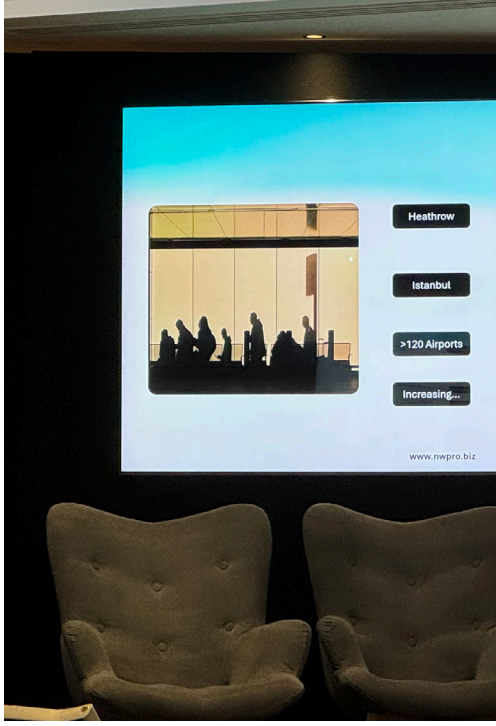
"I want to know where they are, who they are, how many of them there are, and how many of our staff need to be there to process them. If we know a swarm is coming, we can send the cleaning team to make sure that the toilets are spick and span for them, and then to come in clean them again after they've left.

"It's all about following the passengers through with all of our assets, people and physical assets to make sure that they're all absolutely tip top for when the passenger is actually going to be in that area."

Overall challenges for airports include data integration, stakeholder engagement, and regulatory constraints.

The conversation highlighted the need for responsible AI adoption, emphasising the importance of clear governance, ethical considerations, and continuous monitoring to ensure safety and efficiency.





Member of the Digital Responsibility Forum, Rebecca Rothwell, took centre stage in the last session of the morning when she addressed the critical issue of the safe adoption of AI, and how humans have to ensure that we are always the ones in control of technology.

Summimng up, she noted: "AI is our co-pilot. It handles the data, the patterns, the consistency. The human leader remains the captain.

"They command the context, the ethics and therefore the ultimate operational authority. And this is the model for safe AI adoption in aviation. Safe adoption means putting AI in a supporting role and keeping humans in unambiguous control.

"AI is advancing rapidly and will continue to do so. It offers genuine gains for your businesses. But the path to realising these benefits isn't found in mastering algorithms. It's found in mastering governance and leadership.

"Your challenge is not technical. It's strategic and cultural, guided by ethics. It's enforcing governance and accountability from the start. It's promoting clarity and literacy on AI's limits.

"It's about establishing the ethical framework iteratively and using that to guide safe, high-value deployment. And it's cementing the message that AI is a partner to human expertise, never a replacement for it. Safe adoption is not a barrier to innovation. It's the only stable foundation upon which transformative innovation can be built.

"By leading with foresight and prioritising governance, you're going to unlock the immense benefits of AI, while protecting the trust and safety that underpin global aviation."

In the Innovation Slot that followed, NW PRO's managing director Jay Richards used his time on the podium to highlight the benefits of integrating the thousands of sensors spread across airport sites and combining them with AI to "generate real value" for operators in terms of operational efficiency, security optimisation and revenue generation.

Revenue wise, he reminded delegates that ACI World's ASQ survey showed that a 1% increase in passenger satisfaction levels at airports effectively equated to a 1.5% rise in non-aeronautical income.

He also noted a US study that found that if you can increase the dwell time in retail areas by around 10%, you typically get a 5% increase in non-aero revenue.

NW PRO's solution for airports is called SensorSync, a real-time digital twin and sensor platform that connects CCTV, LiDAR, RFID and other systems into a single intelligent 3D replica – enhanced with AI for tracking, understanding and operational insights.

All eyes were then on Jesús Caballero Pinto, CEO of Sofia Airport (SOF), who told the audience more about the planned growth and development of Bulgaria's main gateway to the world, with new technology and the holistic roll out of AI set to play a big role in its journey.

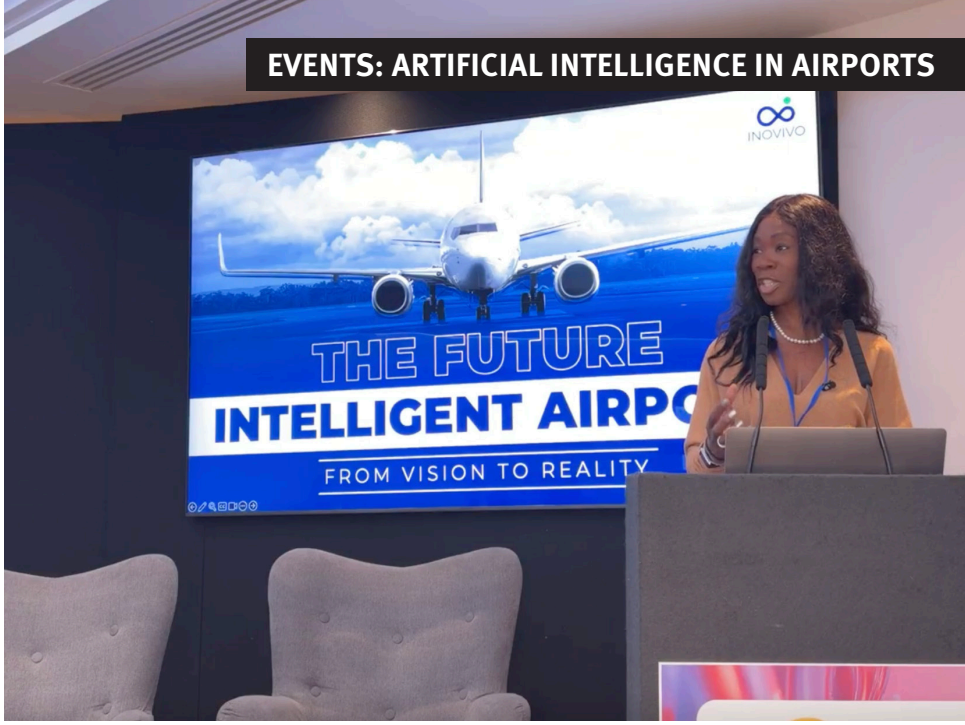
Central to SOF's future is a new €250 million Terminal 3 that Pinto described as a "game changer" and "Europe's 5-Star regional hub" built around high efficiency and a superior passenger experience.

The integration of 5G technology and autonomous vehicles in airport operations are on the agenda, along with the use of drones for security and efficiency and the potential of AI to automate processes like baggage handling and predictive maintenance.

On the revenue generation side, Pinto highlighted the importance of mapping passenger flows to enhance retail strategies and detect fraud.

He felt that the location of the Instutute for Computer Science, Artificial Intelligence and Technology (INSAIT) in Sofia gave the airport an edge in its AI ambitions, noting that a supportive aviation ecosystem was key to helping SOF achieve its goals.

Next up was Simon Wilcox, the CEO of Wordsworth Consulting and former transformation lead for Heathrow Airport, who covered approaches to embracing AI in airports, from concept to impact.



A highly enjoyable first day ended with an impromtu roundtable chaired by Aerosimple director, Alex Kirby, with Dean Willard, a partner with Imagine Wireless, joining earlier panelists Nikola Loncar and Brian Roche to address some of the key points of the day.

All agreed about the huge potential of AI to improve airport processes, the need for a holistic approach to connectivity, and the importance of understanding and mitigating supply chain risks.

They also touched on the challenges of adopting new technologies while maintaining safety and security, and the potential impact of AI on future airport operations.

Willard noted the importance of thinking about connectivity holistically and matching use cases with the appropriate connectivity. He also highlighted the regulatory differences between the US, UK, and EU, with the UK and EU having more spectrum reserved for private LTE and 5G.

Aerosimple is a cloud-based digital transformation platform for airports and airlines currently is use at 150 plus airports cross tne world today, including more than 100 in the United States.

Introducing his company, Kirby said: "Aerosimple plays an important role, I think, in preparing airports to be ready for a high in terms of digitising every single facet of the airport's operation, putting it onto a single platform, and allowing each of those areas of the airport to speak to one another and report to one another.

"So, it does away with silos. As far as I'm aware, there's no airports in the world that have got to this point yet, but there are a number that are a long way down that road."

Day 2 of the summit featured presenations from Inovivo founder and CEO Sharon Prior; Dimitri French, the former AI and data lead for Google and Amazon; and Alex Devine, manager with Egremont Goup.

Prior, Heathrow's former director of technology, spoke about 'The Future Intelligent Airport: From Vision to Reality'; French covered the topic of 'Navigating Strategically in an AI-Driven Future'; and Devine told delegates more about 'The DNA of Change: Transforming Airports in the Age of AI'.

In her presentation, the Prior examined how data, AI, and systems design will create frictionless passenger experiences; drive operational efficiency and resilience; and enable cleaner, safer, ethical, sustainable aviation.

In between them Illuminex AI and Danlex took centre stage by telling delegates more about their impressive industry solutions in separate Innovation Showcase presentations.

Illuminex AI's chief innovation officer, Daniel Connolly, shared insights from deploying FOD AI in complex, data-scarce airside environments.

He highlighted how airside teams can leverage AI to maintain safety and operational efficiency, even when data is limited, and the challenges of integrating machine vision into live airport operations.

Indeed, deploying AI in these environments demonstrates how technology can adapt to operational constraints and deliver actionable insights that help teams make faster, smarter decisions on the ground.

Danlex turned the conversation towards AI-driven maintenance solutions for X-ray systems, more specifically the PM4X which can predict equipment failures before they happen, reducing downtime and boosting efficiency.

Summing up, Egremont's Crane noted: "The discussions across the two days showed a clear direction of travel: airports are moving beyond early exploration and into more structured, deliberate adoption of AI, grounded in shared learning and real operational needs. We look forward to building on this progress in 2026!"

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The **future** is **now**

Busan in South Korea hosted the third instalment of ACI's Airports Innovate conference. Editor, Joe Bates, was there to report on some of the conference highlights.

Airports Innovate may only be a few years old, but it has quickly established itself as one of ACI's most dynamic conferences, giving participants a glimpse of some of the new technologies and innovative new ways of doing business that we can expect to see in the future.

Indeed, from an opening that featured robotic dogs dancing to K-pop to discussions about the need for innovation ready leaders, artificial intelligence and mobility, smart security, and the evolution of the travel experience for passengers with disabilities, the event covered innovation from almost every angle.

And, it must be said that hosts, Korea Airports Corporation, (KAC) did a fantastic job of looking after more than 400 delegates in attendance, including providing arguably the best conference food I have tasted in 25 years of going to ACI World events!

Our round-up of November's conference will focus on the state-of-industry addresses from ACI's leaders, some panel sessions and a host of innovation awards presented during the event.

The impressive dancing robotic dog opening was followed by welcome addresses from SGK Kishore, executive director and chief innovation officer of GMR Airports; Jeong Ki Lee, acting CEO and president of KAC; Yeong-Kook Kim, Director General for Aviation Policy for South Korea's Ministry of Land, Infrastructure and Transport; and Heui-Yeob Seong, vice mayor for future innovation with Busan Metropolitan City.

Stressing the key role technology and innovation will play in the future development and growth of the aviation industry, GMR's Kishore reminded delegates of how far Hyderabad Airport in India had come over the last decade in terms of its digital transformation, embracing video analytics and biometrics to streamline processes and increase throughput.

INNOVATION ACROSS THE REGIONS

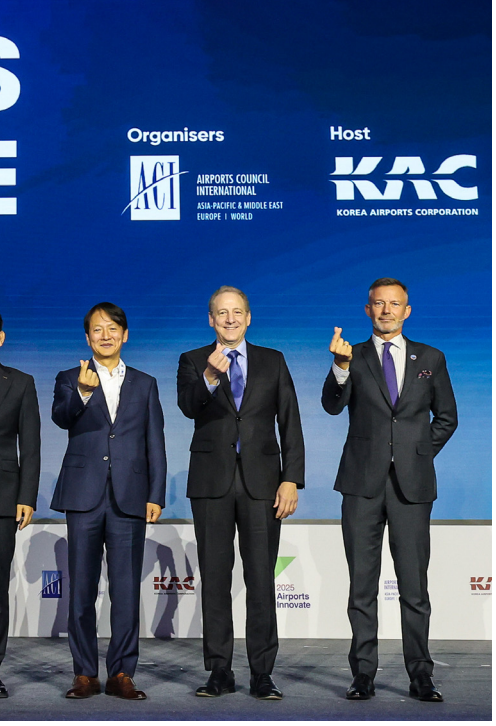
Airports Innovate is jointly organised by ACI Asia-Pacific & Middle East, ACI EUROPE and ACI World, and following the tradition of the first two events held in Muscat and Rome, the director generals of the three regions opened with state-of-the-industry addresses.

Up first, ACI Asia-Pacific & Middle East's director general, Stefano Baronci, highlighted his region's leadership in innovation with the Republic of Korea as a standout example.

On the topic of passenger expectations, Baronci said: "Today's passenger expect not only a safe service, but also an increasingly sophisticated customer experience. And I'm proud to say that Asia, along with the Middle East, continue to outperform the global average in terms passenger satisfaction, according to the latest ACI data."

He noted that ACI Asia-Pacific & Middle East's recent survey on security innovation – based on insight from 48 airports of differing sizes in more than 30 countries – showed that the deployment rate of advanced screening technologies at major airports, particularly when it comes to CT screening for baggage (58%) and body scanners for passenger screening (83%), was gathering pace.

"Airports are progressively upgrading their passenger security checkpoints. And Jeju Airport, operated by KAC, was among the first



ones in the world to introduce a smart security checkpoint in 2019, setting a strong precedent for others to follow," he stated.

"The benefits generated by the volume of such machines is indisputable. They are more efficient. They are sharper, they increase passenger satisfaction and, potentially, readiness for the airport journey because they give customers more time to enjoy the commercial offerings before boarding in a better state of mind."

Financial and logistical constraints posed the biggest obstacle to the large-scale introduction of CT scanners across Asia-Pacific & Middle East, he said, noting that a single machine is much bigger than a traditional X-ray machine and typically 10 times more expensive.

He also used his time on the podium to once again warn that slot allocation remains a critical challenge, arguing that historic regulations needed reforming to allow airports to make better use of their runway capacity.

This, he said, is hugely important to the future growth of traffic in Asia-Pacific, which is currently the second most congested region in the world after Europe with most of the "super congested airports globally" being located in China.

His counterpart at ACI EUROPE, Olivia Jankovec, then delivered a typically well-polished overview of what is happening in Europe in terms of passenger growth, trends and ever-changing market dynamics.

He reminded delegates that Europe's airports finally returned to pre-pandemic traffic levels in 2024 when 2.5 billion passengers passed through the continent's gateways – around 2% more than in 2019, with significant growth in all markets.

However, Jankovec pointed out that only 53% of Europe's airport members had achieved a full recovery, remarking that today's market is very different to before COVID and very fragmented in terms of performance.

Measured by size, airports handling over 40 million passengers per annum handled 0.6% more passengers in 2024 than they did in 2019 compared to 4% and 11% increases for airports handling 25-40mppa and 1-10mppa respectively. The worst performers were airports welcoming 10-25mppa (-3.8%) and Under 1mppa (-34%).

"I think what's striking here is how our small regional airports are actually being left behind, not having recovered their pre-pandemic traffic problems," said Jankovec.

From the demand side, he stated that the "new aviation market" was all about leisure, VFR and 'bleisure' (a blend of business and leisure) and not much about business, due to a fundamental shift in society for more experiential travel. More disposal income for younger and older travellers was driving the trend, said Jankovec.

On to the bigger picture stuff of "resilience and future proofing" the business, Jankovec revealed that the three big challenges faced by Europe's airports was the need to decarbonise at the same time as protecting air connectivity, "decouple their financial viability from volume growth", and "become masters of their own capacity".

He said: "The last of these challenges, very linked to innovation, is the fact that we really need to become the masters of our own capacity.

"I think running an airport is very often akin to running a factory that you've invested in, but you don't really control it because it depends on the directions of so many third parties, and that needs to change.

"We need to be more in control of the way our capacity is being used by airlines, by ground handlers, by air traffic controllers. This is about efficiency across the board. This is about connectivity and balance and performance."

Securing enabling policies and regulations would also be key, added Jankovec, who concluded by stressing that Europe's airports

are embracing the transformation agenda by focusing on three issues – sustainability, innovation and diversification.

He said: "Just to conclude, as we all know, this is about boosting resilience and performance across everything in terms of airport management and development, leveraging, of course, digital and automation. And with that, I think it's really time that we manage to break the operational silos which are holding us back.

"I think this is going to be, of course, about putting the passenger at the very core of everything we do, and it will also boost security, safety and potentially open up new business opportunities.

"I believe that we're already doing a lot with Generative AI in terms of the wealth of data it gives us, but I think the prospect of Agentic AI is really exciting, because that's going to allow us to develop really fully autonomous systems that will be able to manage very complex situations in real-time in a much more efficient way."

ACI World director general, Justin Erbacci, opened by providing insights into global aviation trends, stating that "the industry was in a period of significant growth" and on course to handle 9.8 billion passengers in 2025 and twice as many by 2047.

Based on the hugely positive long-term forecast, he revealed that ACI World's mission and strategy was be positioned to help airports accommodate this growth, with a focus on five key areas.

He said: "The first one, is we have to help airports increase the capacity they get in their existing infrastructure. How do we get more passengers and more aircraft through our existing facilities? We need to do this as developing new facilities takes a long time and we need to be able to accommodate the growth in the shorter term.

"So, this is a very important area, not only on the ground, but in the skies as well. We know that our existing infrastructure is not sufficient to be able to accommodate growth, so we need to be able to help our airports build and plan to build new facilities or modernise existing facilities to provide additional capacity.

"The third key focus is we need to help our airports to be able to operate as viable businesses. We have often alluded to the strong pressure that airports are facing from a cost of revenue perspective, and we need to make sure that we're advocating for proper policies to allow airports not just to be able to sustain their operation, but also to be able to get the money they need to build this new capacity.

"Then, of course, improving safety, security and the passenger experience is always critical, with a special emphasis on helping to improve the customer experience.

"And we need to make sure that we're doing all of this sustainably by balancing growth with our environmental and social responsibilities.

"Now, of course, innovation, automation and new technologies will be essential to achieving success across these areas."

Turning to innovation, Erbacci told delegates that while innovation is important, how it is perceived is even more critical, as it will ultimately determine an airport's transformation.

He told delegates: "I was fortunate enough to have a strong focus on innovation throughout my career, often with innovation even in my title, which I never really liked, because one thing I learned is that innovation is much more than a title or a department.

"It's a philosophy. It's a mindset. It's a way of working that must be embedded into everything an airport does, and by everyone who works there.

"It begins by everyone in the organisation, every day, asking how can we improve? How can we do things better?

"But successful innovation doesn't stop there. Innovation doesn't lack ideas. It lacks implementation. We're only as good as what we deliver in the end.

"So, what separates successful innovation from the rest? What allows us to be able to take ideas and implement them successfully? Based on our observations and discussions with many groups, companies and airports across the globe, innovation depends on three key things.

"These aren't exclusive, of course, but we think that they're very important aspects. The first one is the approach. How do you approach innovation? Second one is, how do you gain support and alignment for innovation. And then, of course, the third is leadership. How do you meet innovation successfully?"

"We have to remember that innovation doesn't start with technology and doesn't even always involve technology. Innovation needs to start with a business problem or a challenge that needs to be solved, or a desire to make an existing process, service or product better or even obsolete.

"The winners are those who challenge themselves on principle every day and can align people and processes and technology to make change happen."

INNOVATION-READY LEADERS

No less than four airport experts were on the panel for the 'Innovation-Ready Leaders' session where aviation leaders shared their views on what it takes to build future-focused, resilient, and digitally empowered airports.

Representing the world's airports were Andrew Murphy, Abu Dhabi Airports' chief information officer; Jahee Park, vice president of KAC's Strategy & Planning Division; Jan-Henrik Andersson, Munich Airport's chief commercial officer & chief security officer; and GMR Airport's SGK Kishore.

They were joined by Taesang Kim and Steven Kim, vice president of LG CNS and executive vice president of Samsung SDS respectively, and moderator, Sanjeev K, SITA's vice president for airports, borders and communication & data exchange.

Opening the debate, Murphy said: "Probably most airports over the next 10 years are going to face the need to expand in some way to meet future demand, but that doesn't necessarily always mean that you have to build new infrastructure.

"There's really a great opportunity to try and make more use of technology to solve that capacity challenge."

He noted that the widespread use of "an advanced and seamless biometric system" in Zayed International Airport's new Terminal A had proved a huge success in terms of enhancing passenger journeys, operational efficiency and customer satisfaction levels, and that this system was now going to be extended to include all transfer passengers.

Murphy explained: "Today, some 50% of the total passengers at Zayed International Airport are actually transferring between flights, so they're not necessarily enrolled into our biometric system.

"To address this challenge, and I think we are probably one of the first airports in the world to do it, we're looking at an enrolment process that happens at transfer, prior to security search. It's a simple process that takes seven or eight seconds.

"This will allow all passengers boarding aircraft to use the biometric system. And, what we've seen in terms of the benefits, is three seconds per passenger in terms of time to board and a reduction in the requirement for staff."

The Abu Dhabi gateway is also set to embrace a new AI driven Intelligent Airport Management Platform (iTAM), in conjunction with SITA, that is capable of autonomous decision making to improve on time performance.

Taking about the potential benefits of iTAM, he said: "When you look at what that means for airports, it means much greater utilisation of stands and other assets. When you look at what it means for ground handlers, it means the optimisation of resources, and for the airlines it means improved on time performance."

Looking at what we can expect over the next decade in terms of innovation, GMR's Kishore noted that the way airports do business today is very different to 10 years ago, leading him to predict that we can be assured of big changes ahead.

"A decade ago, I used to go before an airline counter and stand in the queue to pick up my boarding card. Not anymore," said Kishore.

"Today, entire operations at the airport are coming out of the terminal, so 10 years down the line I think the entire [airport] business and operating model, and therefore the entire way we plan will be much more seamless.

"I think passenger will walk into the terminal and straight onto the aircraft. Airport infrastructure will change. Technology will be a part of the gateway."

The discussion focused on the future of airport infrastructure and operations, emphasising the need for digitalisation and automation to address growth and capacity challenges.

Key points included the need to integrate biometric technology for seamless passenger journeys, the importance of real-time data sharing among stakeholders, and the role of AI in optimising airport processes.

POLICIES TO FOSTER INNOVATION IN AVIATION

In the hot seat for this one were Vera Jakobsen, Munich Airport's vice president for digital and innovation; Rama Iyer, head of innovation at the GMR Group; and Bradford Logistic Group's executive vice president for Europe, Lorenzo Belicchi.

The session, moderated by ACI World's senior vice president, Antoine Rostworowski, stressed the need for policies that would encourage innovation as new infrastructure alone would not be enough to help the world's airports meet future traffic demand, which is expected to double by 2050.

Key innovation strategies for the panel include leveraging data, AI, and automation, and creating seamless passenger experiences.

Munich Airport aims to achieve net zero emissions by 2035, focusing on technology and sustainability. GMR Group supports start-ups with emerging tech. Bradford Airport Logistics uses automation for efficiency and improved working conditions.

The panel highlighted the importance of balancing regulation with innovation, advocating for policies that facilitate change rather than obstruct it. They also stressed the need for diverse perspectives and continuous education of regulators to support technological advancements.

EXPANDED SKIES: AI AND MOBILITY

Drones, Urban Air Mobility (UAM) and AI-based Digital Twins came under the microscope in the next session, which featured Chris Woo, manager of KAC's Advanced Air Mobility Office; Hiroki Imahama, Japan Airport Terminal Co Ltd's director of corporate planning, and Wonseok Jang, principal of smart logistics & city project division with LG CNS.

Woo explained how KAC has been developing a 3D Digital Twin Platform since 2020 to prepare its airports and South Korea for a future that will include a new era of commercial drones and UAM, the latter of which he expected to be operational from 2028.

He noted that the new 3D Digital Twin Platform was effectively created by integrating existing data into a common data environment that

utilises emerging communication technologies such as IoT and LiDAR to collect and manage real-time data.

Woo said: "Based on this collective data and operational information, we will adapt AI based prediction algorithms to transform to a prevention and prediction focused smart safety management system.

"The emergence of new aircraft requires a new management system that integrates commercial drones, eVTOLs and traditional ATMs into a single platform for safety. It is called SWIM (System Wide Information Management) and can be integrated into our new platform."

Woo said KAC will primarily use its new digital twin platform for construction management (clash detection, simulation and on-site visualisation), airport facility management (lifecycle management, safety management and emergency response) and operations (information integration through use of AI, sensors, robotic technology, UAMs etc, real-time traffic management, and wildlife hazard management).

JATCO's Imahama talked about how Tokyo Haneda has enhanced its on-time performance through the introduction of a Ramp Bus Allocation System (RBAS), which has transformed the operational efficiency of bus operations, particularly to aircraft parked at remote stands, significantly reducing flight delays.

Day 2 began with a highly informative debate about accessibility, before numerous presentations showcasing examples of outstanding innovation, the winners of ACI World's Technology Innovation Awards, and a future looking 'Next Generation of Airports' panel.

CREATING AN ACCESSIBLE AIRPORT EXPERIENCE FOR PASSENGERS WITH DISABILITIES

In the hot-seat for the accessibility panel – expertly moderated by Customer Centric Consulting's Claire Donnellan – were Keith Hui, HOK's regional leader of aviation and transportation; William Neece, CEO of Ozion Airport Software; and Dr Chi Ung Song, executive director of Incheon International Airport Corporation's Airport Technology Research Institute.

Donnellan opened by stressing how important accessible travel is as passenger numbers are expected to double by 2047, with the total including a significant portion of people with assistance needs.

And she noted that there are many current and emerging technologies out there that can make life easier for passengers with disabilities, which is good news, as the ACI Global Traveller Survey reveals that up to 75% of passengers are willing to adopt technologies for travel.

Hui addressed the issue from a design perspective, suggesting that the easily achievable goals such as ramps for multi-level journeys, decluttering spaces, intuitive wayfinding and more respite areas for passengers can make a huge difference to the airport experience for those with disabilities.

While Song shared some best practices from Incheon Airport, including the use of robots for various tasks and the creation of sensory rooms for passengers, and emphasised the importance of listening to customer feedback.

Final take aways. Neece encouraged the audience to stretch their minds and consider innovative solutions for accessible travel, such as integrating robots and automated mobility devices. Song noted that it was important to remember that not all passengers were comfortable with new technology and that people and designing facilities for all passengers remain key to being an all-inclusive gateway.

While Hui said: "From St Louis and Salt Lake City to Shanghai Pudong we are seeing a lot of requests for sensory rooms. It seems to be a very popular thing. It's trendy, and a lot of times these rooms are in kind of left over spaces that are tucked away and difficult to find.

"But what's interesting is that the number of people identified as neurodivergent is rising. It used to be one in seven. Currently we're seeing data that says that it's one in five, and possibly that will increase to one in three in the future.

"There's a lot of us that are neurodivergent, and I think that from a 3,000ft view, is just adding a sensory room really the right thing to do? Is it creating an inclusive experience or is it exclusive because you are basically putting people into boxes, which I don't think is ultimately our goal.

"So, we [HOK] are starting to look at what we design within a sensory room and try and bring some of that into more areas of the terminal as I think this will bring benefits for everyone.

"In my opinion we shouldn't really be thinking about the sensory room, we should be thinking about the sensory terminal."

INNOVATION SHOWCASES

Part of programme this year was the addition of a curated Airport Innovation Showcase that allowed ten ACI World Business Partners to promote their breakthrough technologies.

Participants included ARC CAST, RDC Aviation, NACO, ThinkGov, Nuctech, Draxon, Roboxi, Idemia, Safe365 and Ethiack – each presenting case studies demonstrating how their solutions are already reshaping airport operations, from AI-powered robotics to intelligent screening systems and advanced data-driven decision tools.

Another innovation session worthy of note came in the shape of a commercial drone update from the Korea Drone Delivery Association's Sora Baek, who revealed that South Korea is looking at the potential future use of drones to deliver everything from groceries to urgent medical supplies.

And she claimed that South Koreans are very much onboard with the idea as a 2025 survey revealed that 91% of the population have a positive perception of commercial drones and 87% said that they would be willing to use one.

NEXT GENERATION OF AIRPORTS

Airport development projects at Incheon, Tokyo Narita and across the Asia-Pacific region courtesy of Artelia Airports were under the microscope in final panel session of the event.

The panel comprised Incheon International Airport Corporation's vice president Bumho Kim; Artelia Airports' head of commercial for APAC, Mung-Fei Yim; and Narita International Airport Corporation's executive officer and general manager, Shinichiro Motomiya, all of whom shared their visions of the future for their respective gateways.

Incheon's Kim took the opportunity to outline IIAC's vision to build a "hyper-connected airport where information, infrastructure, and data come together to create a smarter future".

He noted that Incheon had been a pioneer in the adoption of new technologies since opening in 2001, most recently unveiling world firsts in the shape of its AirStar passenger service robot in 2017; AI-powered Information Kiosk in 2019; AirRide self driving vehicle within the terminal in 2020; and A-SMGCS onboard navigation system to detect airside movements in 2023.

Looking to the future, he said: "Our next step is to become a hyper-connected airport where information, infrastructure, and data are connected to create a smarter, seamless airport ecosystem.

"This vision is built on three pillars. Total Airport Management [TAM], 5G Connectivity and our AI Innovation Hub."

TAM, he explained, will connect all airport operations information. Building a 5G network as the backbone of Incheon's digital transformation will connect all airport infrastructure. While the AI Innovation Hub will collect and share airport data.

"The AI Innovation Hub will be the engine that powers Incheon Airport's future innovation. When information, infrastructure, and data are truly connected, we create a smarter, faster, and more collaborative airport," enthused Kim.

"This means efficient airport operations, a better customer experience, and continuous innovation for the future."

Next up Artelia Airport's Yim told delegates more about some of the huge infrastructure development projects that the company has been involved in over the last 25 years.

The projects – the Artelia Group 100% acquired Groupe ADP subsidiary ADP Ingénierie (ADPI) in late 2024 – include Guangzhou Baiyun International Airport's recently opened Terminal 3.

Elsewhere, she said developments across the region included Macau Airport expanding both its airside and international facilities; Hong Kong enhancing its airside capacity with a new third concourse and third runway, while Zhuhai Airport has built a new terminal and Shenzhen Baoan International Airport recently opened a new satellite and plans to build another one at the same time as upgrading its two existing terminals.

Narita Airport's Motomiya revealed that the airport plans consolidating all passenger operations into one mega new terminal in a bid to ensure that it is equipped to meet future demand.

According to Motomya, the new facility will replace today's existing three terminals, and together with a planned Airport City development around the gateway will embrace automation, robotic and autonomous technology.

The huge transformation is needed as forecasts predict that Tokyo Narita's traffic numbers are expected to soar over the next 20 years from around 40 million passengers and two million tons of cargo per annum today to up to 75mppa and three million tons of cargo between 2032 and 2048.

TECHNOLOGY INNOVATION AWARD WINNERS

Bengaluru's Kempegowda International Airport for its biometric enabled baggage drop (Best Innovation in Airport Passenger Related Processes); Queen Alia International Airport for its Smart Cleaning System (Best Innovation in Airport Operations and Installations Management) and Roland Garros Airport for its "bioclimatic" airport building (Airport on the Rise) picked up the airport awards.

While Aena's head of ideation and entrepreneurship, Pablo Lopez Loeches, was named as the Best Airport Innovation Leader.

ACI World's Erbacci commented: "The 2025 Technology Innovation Awards winners are about successful innovation implementation – solutions that run every day, in real airports, under real pressure.

"This year's winners spotlight measurable advances in digital transformation, data-driven operations, identity-enabled self-service, and sustainable, climate-smart terminals.

"These are the types of innovations airports need now – meeting today's passenger expectations while keeping pace with rapid growth in air travel."

Hosted by Aena, the next Airports Innovate will be held in Barcelona, Spain, between November 23-25, 2026.

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Predictability is boring!

BDM's David Cooke explains why he believes pop-up stores will have an important role to play in the reimagining of airport retail.

Airports are some of the most heavily foot-trafficked environments in the world. Yet, when it comes to retail, they often feel stuck in the past.

Walk through almost any major UK airport today and the experience is eerily familiar: the same brands, the same shopfronts, the same layout. It's predictable. And in the ever-evolving world of consumer expectations, predictability rarely drives growth.

Having spent over two decades shaping high-performance commercial spaces, I've come to a simple conclusion: airports are missing a trick.

Airport terminals aren't just transit hubs, they are high-potential commercial real estate with a captive, time-rich audience.

So why are we still designing them around long leases and rigid layouts that have barely evolved in years? This is clearly static retail in a dynamic and spirited environment.

The infrastructure for change already exists. I've worked on airport projects where the architectural bones support flexible, short-term usage – yet it is underutilised.

Reasons for this include compliance hurdles, design conservatism, and fear of operational disruption. But the opportunity cost is enormous.

One of the simplest ways to inject life, flexibility and commercial agility into these spaces is through pop-up retail because these outlets are:

- Quick to deploy
- Relatively low risk
- Highly visible
- Custom-designed to drive impact and ROI in compressed timeframes

BDM have been the digital twin go-to experts for several luxury brands over the years such as Mulberry, Cartier, Harrods and Dior.

We've provided the infrastructure for pop-ups at Heathrow Airport, providing the power, data, and services provision for them, and we designed the pop-up for the airport's Terminal 3 Reserve & Collect service.

The latter pop-up was part of Heathrow's online shopping platform, which was operational in a matter of days. The result? Performance that exceeded expectations, both in brand awareness and sales per square foot.

ASIAD (Aviation Security in Airport Development) is the UK counter-terrorism programme that mandates specific design elements to protect airports from terrorist attacks – meaning the bar for safety and preparedness at airports is high, and rightly so. Much of an airport's retail space is airside, located beyond security screening, so staff and departing passengers are considered lower risk.

In contrast, shopping centres are open access by nature, meaning the public can enter without any screening. This makes them inherently higher risk, as individuals could potentially carry weapons or hazardous materials into densely populated areas.

While some may see this as limiting agile or short-term retail formats, ASIAD shares key principles with Martyn's Law: embedding security in design, taking a risk-based approach, ensuring operational preparedness, and maintaining compliance.

High-footfall, publicly accessible airports are directly relevant to these guidelines, and as a result all of our staff, and staff and contractors requiring airside access, are trained in GSAT (General Security Awareness Training).

To those who say this stunts their ability to implement more creative or short-term offerings, I offer these answers.

1. COMPLIANCE COMPLEXITY

ASIAD requires airport developments, including retail spaces, to follow stringent security and risk-based design principles. This naturally adds layers of complexity and cost and can limit design flexibility.

Solution: Adopt a proactive, compliance-first approach. By integrating security infrastructure and procedural planning from the concept stage, you will avoid mid-project disruptions.

For example, when designing flexible retail units, you must model different layouts against ASIAD compliance checklists, ensuring they can adapt without breaching regulations.

While this may increase initial costs, it prevents expensive redesigns or retrofits later, balancing compliance with creative freedom.

2. DESIGN CONSTRAINTS VS BRAND IDENTITY

Security and operational constraints in airports can clash with a retailer's need for brand expression and immersive experience, especially in short-term activations where every second and square metre matters.

Airport pop-up design must balance safety, accessibility, and visibility. Compliance with the Fire Safety Act 2021 and management of combustible loads is essential. Structures must withstand crowd forces while maintaining clear accessibility and avoiding pinch points.

Pop-ups should also preserve sightlines, ensuring signage, permanent facilities, and shop fronts remain visible.

Solution: Good design reconciles tension. It is essential to work closely with both landlords and brands to build modular systems that respect airport constraints while maximising creative impact.

For pop-ups, this could mean lightweight, rapidly deployable units with built-in digital storytelling, adaptable to various terminal zones without invasive installation.

Early alignment with stakeholders like airport security and FM teams is also vital, ensuring everyone is on board, not just at sign-off, but from inception.

3. LANDLORD RISK AVERSION

Many airport landlords resist short-term leasing models due to fear of operational disruption, inconsistent revenue, and lack of tenant familiarity with airport protocols.

Solution: Mitigate risk by offering turnkey solutions: a fully packaged approach that includes design, compliance, fit-out, and operational handover.

When landlords know the pop-up won't interfere with terminal flow or security, and that the build team understands airport-specific restrictions – in turn, confidence increases. Further, you must benchmark success with data from previous installations.

In the Bulgari project at Heathrow, we optimised the pop-up space, applying the design considerations necessary.

This included expanding the types of units that could safely use the area, from low-risk offerings to medium-risk categories such as food and beverage, perfumes, and other combustible materials, turning what initially seemed restrictive into a proven, profitable model within a limited timeframe.

TIME FOR A MORE FLEXIBLE RETAIL MODEL?

The traditional model of locking in familiar brands on five-to-ten year leases may feel safe, but don't provide the flexibility airports need to compete with high streets, e-commerce, and travel apps for every traveller's attention and spend.

Short-term, flexible formats offer a rotating, dynamic retail experience that keeps passengers engage, opportunities for smaller brands to enter premium real estate and the ability to test concepts rapidly, without long-term commitments.

Retail thrives on discovery and novelty, and these are two qualities that, in my opinion, are sorely lacking in today's terminal experience.

The airport of tomorrow isn't just a space of transit; it's a space of experience. It should surprise, entertain, and convert – and its retail environments within it must do the same.

I'm passionate about making retail work harder and smarter, even in the most constrained environments. With the right foresight, strategic design, and stakeholder collaboration, airports can become adaptive ecosystems, and not static shopping centres.

We have the tools. We have the knowledge. We have the data. Now it's time to rethink the possibilities. AW

About the author

David Cooke is founder of Building Design and Management (BDM) and an expert in design, retail, and design management, ensuring projects align with goals and enhance customer experiences.

Smart delivery

Vicki Speed tells us more about some of the project enhancing technologies used in the construction of Lima Airport's new terminal.

Lima's Jorge Chávez International Airport is undergoing a massive expansion programme to become an 'Airport City'.

Unique in South America and inspired by airports in Europe such as Zurich, Paris, Amsterdam and Frankfurt, the design and construction of this Airport City concept is based on three fundamental pillars – Peruvian identity, development and passenger experience.

Third-party investment for the construction of the Airport City will exceed $400 million in the first phase, in addition to the $2 billion that operator, Lima Airport Partners (LAP), is investing in the expansion project overall.

A critical piece of the Airport City concept is a second runway and new 270,000-square-metre passenger terminal, which have equipped the gateway to handle up to 40 million passengers a year.

LAP selected the Inti Punku consortium, which includes Spain-based SACYR and Peruvian-based Cumbra, to engineer and construct the new state-of-the-art passenger terminal, which officially opened in 2025.

Just as impressive as the scope and scale of the modernisation project are the means and methods the project team put in place to deliver the new terminal.

From the building information model (BIM) development to the advanced surveying, grade control and co-ordination techniques in the field, this airport terminal landed its objectives with smooth precision.

MODEL MODS AND MIX-UPS

The scope of the terminal project covered all the earthwork, infrastructure and building construction needed to build the new airport facilities, including a large parking lot and taxiways, asphalt paving in terminal and commercial areas, and the installation of underground utilities.

Carlos Ruiz Miranda, chief surveyor with SACYR, who joined the project about a year into the programme, said: "One of the main concerns was synchronising design data and information flow between the field and office to facilitate the execution of the project."

Notably, the project was 100% designed to the latest BIM standards, which involved around 2,700 active BIM models that included more than 80km of utilities being constructed by multiple contractors.

"With this many BIM models, trying to ensure that everyone in the field was working to the latest model or geometric modification, even just managing survey control, stakeouts and grade checking, was proving to be a challenge," said Ruiz. "We needed a way to better share data."

The engineering team relied on design review and cloud-based collaboration software to co-ordinate design – but these tools didn't have the features to connect the field and office, according to Ruiz.

He subsequently led the implementation of a fully synchronised field-to-office-to-field digital workflow that directly improved co-ordination and productivity across departments and kept the project on track.

DIGITAL SYNCHRONICITY

The first step in Ruiz's plan was to implement a cloud-based common data environment (CDE).

"CDE technology provided us with a centralised collaboration platform. It synchronised all the right information at the right time, and provided automatic interference reviews while supporting CAD analysis," explains Ruiz.

"The construction crew and field surveyors had everything synchronised in that platform. Information was automatically available in near real-time."

This CDE would quickly become a central hub for managing data from field solutions that included laser scanners, uncrewed aerial vehicles (UAVs), grade control systems, total stations and GNSS systems that gathered positional data to centimetre accuracy.

It also covered a range of heavy equipment from excavators to paving systems, which were all equipped with machine control systems.

HIGH PERFORMANCE PAVING

A critical part of the terminal expansion was the airside airplane parking areas around the terminal.

It was an area that required about 70,000 cubic metres of concrete and asphalt. The team used grade control on a Cat 140K motor grader to meet the strict tolerances on sub-base and base layers and a paving control system on an asphalt paver for improved accuracy and quality control.

A wireless data transfer software facilitated the movement of data from the office to the machines at the jobsite. It helped crews ensure the most current models were loaded on the machines and the as-built conditions met the tight specifications as defined by the owner.

Another productivity and real-time progress tracking software tracked jobsite productivity.

"The combined paving and grading systems allowed us to work in large areas with efficiency and accuracy," notes Ruiz. "We saw a significant reduction in rework because the deviations from design grades were minimised.

"Analysis showed that our crews paved to 10-millimetre accuracy, well below the 18-millimetre requirements. If there were issues, the near real-time data collection and reporting tools allowed us to identify and resolve them quickly."

AUGMENTED REALITY CONNECTIONS AND CORRECTIONS

With so many pieces to this project in the terminal and surrounding areas, the SACYR survey team found that one of the most essential technologies to facilitate the office-to-field data workflow was augmented reality (AR).

"Initially, we tried using paper printouts to manually check for issues in the field; we tried Google Earth, but that was not satisfactory," stated Ruiz.

Instead, SACYR turned to purpose-built augmented reality software to collaborate and manage tasks between all the different groups and departments of the project with real-time visualisation of data to support decision-making and provide insight into potential issues.

"Using AR software on infrastructure projects offered significant advantages. It facilitated accurate, real-time visualisation of data, improved decision-making and planning and allowed for effective communication between teams, reducing errors and costs," commented Ruiz.

"In addition, it improved efficiency and precision in project execution, which translated into a higher quality result and shorter deadlines.

"In short, AR technology is a valuable tool for optimising the management and execution of infrastructure projects."

Indeed, the technology allowed for tasks to be assigned, and statuses tracked to help co-ordinate work across teams.

As a result, Ruiz said that he found that any issues or anomalies detected during construction could be more easily communicated and addressed.

It also helped synchronise inspection/quality check processes to ensure that all parties were using the latest information.

"On this project, it was an important tool for managing the many moving parts and stakeholders," said Ruiz. "The visual interface provided a terrific oversight of project progress."

Summing up, he said: "The use of technology on this project, and more importantly our digitally connected workflow, helped us manage the many pieces of this massive effort in a more collaborative manner.

"This ensured better organisation of the information in general, which reduced human error and greatly improved access. Bottom line, the entire team was just better connected." AW

A connected future

Sumesh Patel, SITA's president for Asia Pacific, considers some of the technologies that will transform the passenger experience at airports in the decades to come.

The air traveller journey is entering its most profound transformation in decades, and across the Asia-Pacific region, airports face an unrelenting challenge of having to serve record numbers of travellers with infrastructure and workforces that are unable to keep pace.

The solution is no longer found in incremental tweaks. Instead, it lies in reimagining the journey as a connected network – where people, processes, and places work in concert.

THE EVOLVING IMPERATIVE

Airports are reaching a tipping point. Passenger volumes continue to rise, but resources and space remain finite. According to ACI-ICAO's joint passenger traffic report, global passenger traffic is forecast to exceed 12 billion by 2030, driven by growth in international markets, particularly in the Asia-Pacific and Middle East regions.

This scale of growth leaves little room for incremental fixes; it demands a wholesale rethink of how journeys are managed.

Responding to these pressures, the industry is prioritising technologies that deliver faster, more efficient passenger processing.

SITA's latest *Air Transport IT Insights Report* reveals that 63% of airports are prioritising self-service, biometrics, and mobile-first platforms, and 75% of airlines plan to implement biometric-enabled processes by 2027, signalling a future where secure, touchless tech is expected rather than exceptional.

Beyond these front-end capabilities, Generative AI, computer vision, and machine learning are being scaled to support predictive resource planning and real-time disruption management.

Underpinning all of this is the need for strengthened IT infrastructure and robust cybersecurity so that these tools run on secure, future-ready platforms. The real challenge then lies in aligning them into a coherent, end-to-end experience.

FRICTION TO FLOW

For most travellers, the quality of an airport experience is defined at its slowest points – the check-in queue, the security lane, the immigration counter, the boarding gate.

These are the moments where operational strain is most visible, and where perception of the entire journey can be made or broken.

Across the industry, new approaches are replacing these choke points with smoother, faster transitions. Biometric identity systems are increasingly deployed at major hubs, enabling passengers to move through touchpoints with little more than a glance.

At airports such as Beijing Capital (PEK), Bangkok Suvarnabhumi (BKK), and Singapore Changi (SIN), these solutions are already in use, cutting processing times while maintaining robust security.

Cloud-based platforms are also reshaping what is possible. They make it feasible to check in from almost anywhere and allow operators to adjust resources on the fly. The real transformation comes when these systems can work together, securely exchanging data across airlines, airports, and government agencies, giving AI the depth of information it needs to anticipate and manage passenger flows in real time.

No longer experimental, these proven tools are scaling quickly and redefining the pace and rhythm of the passenger journey.

SEAMLESSNESS IS PHYSICAL, TOO

Yet technology alone cannot deliver a journey without friction. The physical environment must work hand in hand with the digital to achieve it. Passenger experience is influenced as much by the spaces travellers move through as by the systems guiding them.

Today, AI-driven simulation and modelling tools allow airports to test terminal layouts before construction begins, optimising for passenger flow and preventing choke points before they appear.

When digital systems and physical design are aligned from the outset, terminals transform from static spaces into responsive environments that adapt dynamically to passenger needs and operational realities.

Scaling this vision across the industry, however, is another matter. For every airport pushing the boundaries of technology and design, many others face entrenched obstacles – systemic, regulatory, and operational – that can slow or even stall progress.

CHALLENGES TO INDUSTRY-WIDE PROGRESS

The leap from individual success stories to industry-wide adoption is where the real work begins. Fragmented systems, uneven readiness, and diverse regulatory demands still stand in the way.

At the heart of these challenges is data sharing. Passenger information is deeply personal, and the stakes for mishandling it are high.

Privacy laws such as the General Data Protection Regulation (GDPR) in Europe and the California Consumer Privacy Act (CCPA) in the United States set strict rules for how personal data can be collected, stored, and exchanged.

Security risks only heighten the challenge, as even a single breach can damage trust for years and derail progress.

Commercial sensitivities also play a role. For some stakeholders, passenger data represents a competitive advantage, a proprietary asset to be guarded rather than pooled. This reluctance limits the potential of AI-driven analytics, which depend on large, connected datasets to deliver meaningful insights.

Closing these gaps will require more than goodwill. It demands agreed standards, trusted frameworks, and secure exchange protocols that protect privacy while enabling collaboration.

This is where AI-enabled anonymisation offers a pathway forward, allowing data to flow without exposing individual identities – a critical step if the vision of seamless travel is to extend beyond isolated projects and become the industry norm.

While challenges remain, the gap is narrowing, particularly where public–private partnerships, shared frameworks, and scalable platforms are in play. Together, these efforts are creating pockets of seamless travel that are gradually connecting to offer a unified experience.

A CONNECTED FUTURE WITHIN REACH

What was once a patchwork of isolated successes is starting to take shape as a cohesive system. A biometric gate here, an off-airport check-in there, a new data-sharing agreement between airport and immigration – each advancement lays another brick in the foundation of a truly integrated journey.

AI acts as the connective tissue, learning from every interaction to refine processes and anticipate needs. This turns facilitation from a chain of discrete checkpoints into a continuous, responsive experience.

Across Asia-Pacific, the building blocks are already in place; the task now is to weave them into a continuous, uninterrupted flow.

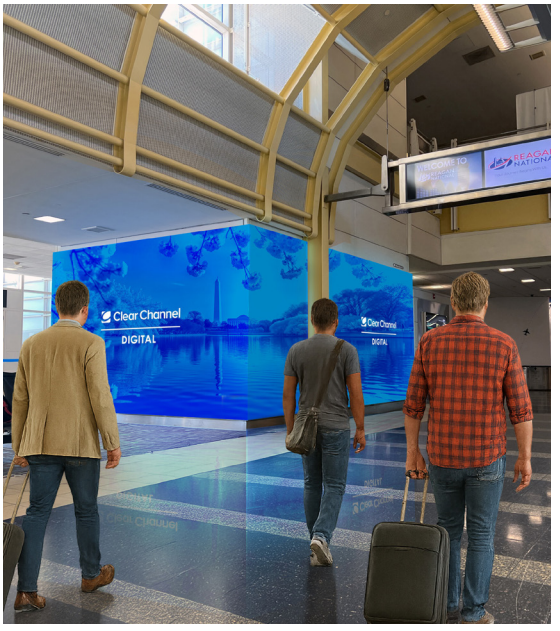
The future of passenger journeys will be defined by how well the industry connects its people, processes, and places.

Rising demand and finite resources and space set the challenge, while the rapid adoption of AI, biometrics, and integrated infrastructure offers the answer.

This progress will come not through isolated projects, but through the deliberate stitching together of technology, design, and partnership. Airports that act now will not just meet the expectations of tomorrow's passengers; they will define them. AW

Business exchange

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



CLEAR CHANNEL EXTENDS MWAA PARTNERSHIP

Clear Channel Outdoor's Airports Division has agreed a 10-year contract (with a five-year renewal option) with the Metropolitan Washington Airports Authority (MWAA) to continnue delivering "a world-class advertising experience" at Washington Reagan National Airport (DCA) and Washington Dulles International Airport (IAD).

The company has been MWAA's advertising and media partner since 2016, since when its dynamic, engaging media experience has boosted advertising revenues by 30% pre-COVID and today has nearly doubled revenue over the previous concessionaire.

Morten Gotterup, president of Clear Channel Outdoor's Airports Division, noted: "This next chapter allows us to deliver unparalleled opportunities for brands to connect with one of the nation's most influential travel audiences through stiking, data-driven digital experiences.

"At the same time, these upgrades will enhance the visual environment and make the journey through Dulles and Reagan National even more dynamic, intuitive and inspiring for millions of passengers every year."

VIENNA CALLING FOR ADB SAFEGATE

Austro Control has selected ADB SAFEGATE's OneControl integrated air traffic control platform, developed in Graz, to modernise all controller working positions in the Vienna Airport ATC Tower by 2028.

The advanced system, already deployed at Hamburg Airport, will enhance safety, streamline tower operations, and support more efficient, sustainable air traffic management.

"Winning this international tender highlights our leadership in innovative air traffic control software," said Gonzalo Moreno-Muñoz, managing director of ADB SAFEGATE Austria.

ADELAIDE AIRPORT OPENS PPG DOMESTIC LOUNGE

Hospitality giant Plaza Premium Group (PPG) has celebrated the grand opening of the Plaza Premium Lounge Domestic Adelaide – Australia's only independent domestic lounge facility.

The new addition marks PPG's inaugural presence in domestic terminals across Oceania and complements the brand's established international lounge at the Australian gateway.

Song Hoi-See, founder and CEO of PPG, said: "We are deeply committed to expanding premium, accessible lounge experiences, and Adelaide's impressive aviation growth made it the natural choice for this launch."

TRANSFORMING SECURITY OPERATIONS AT BRISBANE AIRPORT

Copenhagen Optimization has deployed two modules from its Better Airport software suite at Brisbane Airport, introducing a data-driven framework to strengthen the airport's security operations.

Together, the modules enable more accurate forecasting, optimised planning and efficient resource deployment, providing operational teams and stakeholders with a shared, reliable foundation for decision-making.

Increased predictability and operational insight enhance agility, support proactive decision-making, and ensure smooth passenger flows throughout the terminal, says Copenhagen Optimization.

The deal comes as Brisbane Airport completes a major upgrade of its security screening lanes.

As part of a nationwide transition, the airport introduced CT Standard 3 screening technology allowing passengers to leave laptops and aerosols in their bags. The terminals upgrade is a key element of the airport's broader Future BNE programme, to enhance facilities for the 2030s and beyond.

Rasmus Kaster, chief growth officer at Copenhagen Optimization, said: "Brisbane Airport is taking a bold, future-focused approach to how security operations should run, and we're incredibly proud that our Better Airport solutions are playing a central role in that transformation.

"This partnership is about enabling the airport to rethink its operational model end-to-end, bringing data, predictability, and agility into a part of the passenger journey that has a significant impact on both passenger experience and operating costs for the airport.

"By combining Brisbane's vision with our deep understanding of airport operations, we're unlocking a new level of efficiency and passenger experience that will set a benchmark for the region."

BIOMETRIC TECHNOLOGY ON-THE-MOVE

Indonesia's Directorate General of Immigration has become the first authority in the world to introduce biometric corridors at scale with new biometrics on-the-move technology.

This brand-new innovation from Amadeus uses AI-enabled biometrics to validate passenger identities "in motion" through wide corridors, rather than stopping to manually present documents to a border guard or at a counter.

It is currently in use in newly establshed biometric corridors at Jakarta and Surabaya airports as part of a government-led digital initiative designed to streamline the entry process for international travellers.

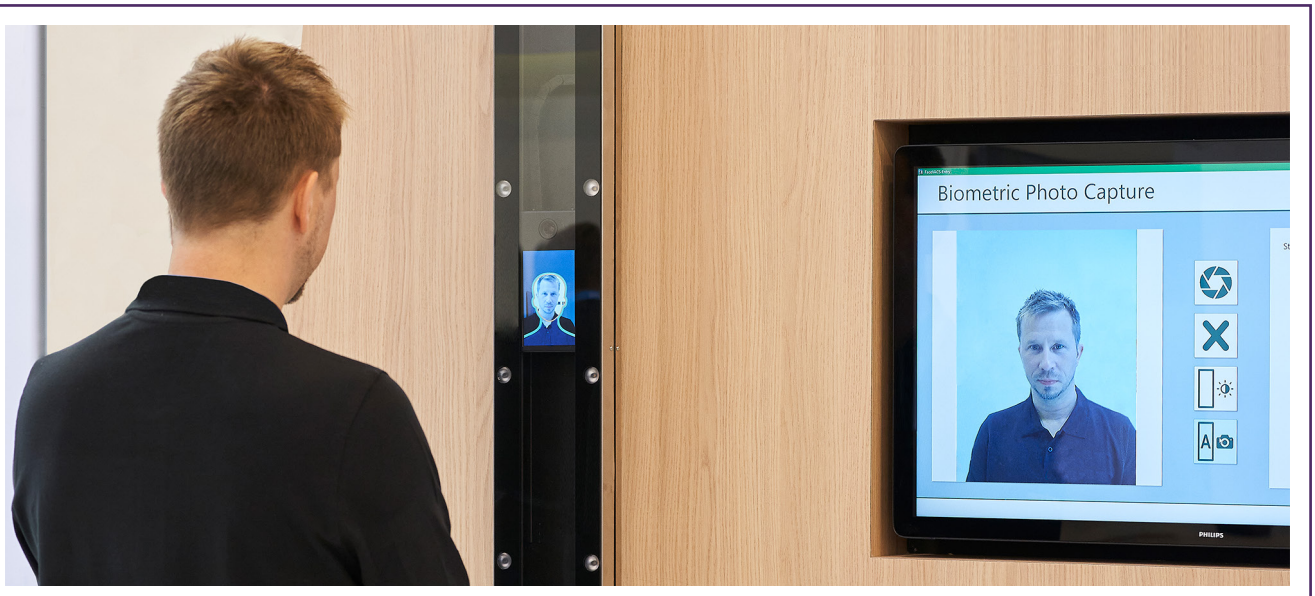
Rudy Daniello, executive vice president for AirOps at Amadeus, enthused: "The Seamless Corridor is the 'jewel in the crown' of our end-to-end portfolio for seamless travel, helping to remove friction and queues at the border.

"In combination with innovations in digital identity and biometrics at key airport service points, it's finally possible for airlines, airports and governments to provide a truly seamless, secure experience, free from document checks, queues and barriers."

DELIVERING JFK'S NEW TERMINAL ONE

Fortune 500 company, JLL, is to provide comprehensive facility maintenance services for the the New Terminal One (NTO) at JFK International Airport, which is scheduled to open in 2026.

The new terminal is a key component of the Port Authority of New York and New Jersey's $19 billion transformation of JFK into a world-class gateway, which will include two new terminals, the modernisation and expansion of two existing terminals, a new ground transportation centre, and an entirely new, simplified roadway network.



FAST FACIAL IMAGE CAPTURE AND TRAVELLER VERIFICATION

With the EU EES in operation, and countries worldwide implementing similar entry/exit systems, airports and border agencies are exploring the most efficient ways to integrate these processes into their facilities and workflows.

Many border agencies continue to explore better equipment to quickly capture facial images and verify the identity of international travellers.

Cognitec's FaceVACS-Entry technology quickly takes biometric photographs and allows for their comparison against facial images retrieved from ID documents or databases.

The process also includes presentation attack detection to ensure a live person interacts with the device.

The latest product models include new firmware to support different capturing ranges, and a 5 Megapixel camera to produce optimal image quality. The newly upgraded software version includes the latest Cognitec matching algorithm and reads QR codes presented to the portrait camera.

The slim, lightweight device fits wide-ranging installation scenarios, including eGates, desks, kiosks, free-standing pillars, and border control booths. Instant camera positioning, active lighting, and responsive user guidance lead to optimal capturing conditions, accurate person authentication results, and fast processing times.

FaceVACS-Entry unites all the proven features Cognitec has developed for border control applications, equipping it for other identity management use cases. It includes the compoany's renowned software for ISO compliance checks, and a robust matching algorithm that guarantees fast, accurate verification results.

Combining photo capture and person verification at the border check point can save travellers lots of time, as they can complete all immigration procedures in just a few seconds.

TRANSFORMINGS BELFAST INTERNATIONAL'S F&B OFFERING

SSP Group will open a series of new and refreshed units as part of Belfast International Airport's £100 million investment programme.

The airport has embarked on a five-year journey to transform passenger experiences, with improvements already underway such as its new state-of-the-art security hall.

In the next phase of the redevelopment, food travel experts SSP will invest in and grow its existing operations to nine units to deliver a greater range of F&B outlets offering something for everyone.

Its diverse airside and landside portfolio will include a new casual dining restaurant ideal for families and larger groups alongside grab-and-go options such as Soul & Grain from its own brand portfolio, Starbucks and Burger King.

These will be complemented by several other new and refreshed units such as The Lagan bar, which will increase its capacity and be given a new look while maintaining its iconic atmosphere, and a brand new 300-cover premium bar and kitchen concept.

"We have worked with Belfast International Airport for over two decades, so we're excited to be growing our footprint together once again at such a pivotal moment in the airport's history," said Kari Daniels, CEO of SSP UK & Ireland.

ABU DHABI AND CAMBODIA SUCCESS FOR SITA

The final few months of 2025 were good ones for SITA, which signed a Memoradum of Understanding (MoU) with Abu Dhabi Airports to develop an Intelligent Total Management (iTAM) platform and saw its technology play a key role in the successful opening and operation of Cambodia's new Techo International Airport.

With global passenger numbers rising and major hubs under pressure to deliver more predictable, efficient, and passenger centric operations, airports worldwide are stepping up efforts to integrate data and co-ordinate decisions in real-time.

Abu Dhabi Airports (ADA) is taking a major step in this direction by exploring the development of an AI driven, iTAM platform with SITA that brings real-time data, insights, and operational decisions together across the entire airport ecosystem.

Under the MoU, both organisations will explore a shared operational data platform that integrates information from airlines, ground handlers, ATC, government agencies, and airport systems.

SITA notes that using advanced analytics, artificial intelligence, and autonomous workflows will help airports anticipate disruptions, optimise resources, and enhance safety, efficiency, and on-time performance.

The iTAM will also serve as a scalable foundation for end-to-end AI-driven airport management and continuous improvement.

Andrew Murphy, chief information officer at Abu Dhabi Airports, said: "This collaboration with SITA advances Abu Dhabi's vision to be at the forefront of global innovation and digital transformation.

"By enabling Zayed International Airport to become one of the world's first truly connected digital airports, and by powering this with iTAM at the core, we are creating a unified operational source of truth that accelerates growth and sets a new global benchmark for smart, seamless journeys."

Meanwhile, in Cambodia, the SITA technology installed in the newly opened Techo International Airport means that for the first time in the country travellers can enjoy a fully digital airport experience from check-in to boarding.

Initially equipped to handle 13 million passengers yearly, the replacement for the now closed Phnom Penh International Airport is equipped with SITA's self-service kiosks, automated bag drops, and eGates.

Behind the scenes, SITA's Airport Management System and Airport Vision keep operations running smoothly by giving airport teams real-time insights they can act on.

These intelligent platforms, notes SITA, help streamline workflows, anticipate disruptions, and enable faster, data-driven decisions to keep flights on schedule and passengers informed

"Southeast Asia's aviation market is growing at record pace, but that growth brings complexity," said Sumesh Patel, SITA's president for Asia-Pacific.

"Techo International Airport shows how technology can turn that challenge into opportunity. By adopting scalable, data-driven systems from day one, the Cambodia Airport Investment Co Ltd has created an airport that can grow sustainably and be resilient in the face of disruption while delivering a world-class experience for every traveller."

Some 29 airlines are connected through SITA's Common Use Terminal Equipment (CUTE) platform, ensuring seamless collaboration between airlines, ground handlers, and airport operations.

The integrated set-up also includes Local Departure Control System (LDCS), Pax Check, Pax Locate, and SITATEX messaging – all designed to connect airport stakeholders reliably and securely.

AW

PEOPLE matters

Developing a sustainability mindset

Richard Plenty and Terri Morrissey reflect on what's involved in taking a longer-term perspective in a fast-changing world.

As we begin 2026, the world continues to be in state of flux, changing rapidly and unpredictably before our eyes. Venezuela, Ukraine, Iran, GROK and tariffs are all in the news today.

Geopolitical upheavals and advances in artificial intelligence challenge our assumptions, forcing us to adapt and learn – or risk being left behind.

We live in a world that can feel overwhelming. There never seems to be enough time. We are bombarded with information and often so busy that it can be difficult to know where to start.

The pressure to meet immediate targets, deadlines and expectations is unrelenting. Something we experience ourselves whenever the time comes round to write our column!

So, it is hardly surprising that in these circumstances many of us, organisations as well as individuals, adopt a pragmatic short-term focus, concentrating on the immediate task at hand, looking for simple pragmatic solutions that work quickly, and not worrying too much about an unpredictable future that may or may not happen. We just want to get the job done.

Unfortunately, a short-term approach such as this has its problems in times where the environment is changing rapidly. We live in a connected world, where reputation matters, trust is hard won, and the consequences of our actions have implications beyond ourselves.

The decisions we make today can be seen in a different light when circumstances change.

For example, many airports greatly reduced their staff numbers during the pandemic when the priority was to cut costs. Five years later, these same airports are facing the opposite challenge of attracting and retaining people to be able to cope with the growing demand.

To think and act with the long-term in mind requires a different approach to the operational mindset that is so often our default paradigm.

It needs a strategic 'big picture' view of the world – a sense of purpose, values, principles and ethics, which go beyond the immediate financial realities to include consideration of people, environment and community impact; a systems perspective which tries to understand how things are interconnected; and a willingness to accept that not everything has a simple immediate solution.

It also requires patience. Take the clothing company Patagonia. Over several decades it has deliberately taken a sustainability perspective. It switched to organic cotton in the 1990s despite higher costs and supply chain issues, investing in recycling materials and repairability, and built products designed to last rather than encouraging repeat purchases.

As a consequence, it has developed strong brand loyalty, and its reputation has attracted committed employees, partners and customers. It has achieved sustained long-term commercial success and is resilient during industry downturns.

There are many encouraging signs that Airport Sector leadership is promoting a sustainability ethos. For example, the ACI Webinar 'Future Proofing the Airport Workforce' in December 2025, attracted hundreds of participants.

An ACI project on a global framework for ESG (Environmental, Social and Governance) was set up and reported in August 2025. The pioneering ACI Carbon Accreditation Programme has expanded to include 625 accredited airports.

However, there is still some way to go to put this into mainstream practice. The world political context is less supportive than it was. There are pressures for growth and expansion which could result in cutting corners.

There is also a need to develop more leaders who have the skills and abilities to do this, who can see the big picture, have strong personal values, relate well to others, are willing to collaborate, and can drive change.

Still, as the benefits become obvious, the development of a sustainable high-performance ethos is one change that can only gather pace. AW

About the authors

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

LET'S WORK TOGETHER

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