ASIA-PACIFIC & MIDDLE EAST AIRPORTS

THE OFFICIAL MAGAZINE OF ACI ASIA-PACIFIC & MIDDLE EAST



IN THE SPOTLIGHT: NEW INFRASTRUCTURE

Issue 2, 2025

- Design & Build: Game Changing New Facilities
- ••• Special Report: Regional Conference Review
- ••• Plus: Air Connectivity, India Retail Focus & IT Trends



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CONTENTS

6. VIEW FROM THE TOP

Director general Stefano Baronci reflects on a busy and successful second quarter of the year for ACI Asia-Pacific & Middle East.

8. REGIONAL UPDATE

Manager for communications Communications and brand marketing, Yuman Lau, provides a quarterly round-up of the latest news and developments from ACI Asia-Pacific & Middle East.

12. DELHI DELIGHT!

We look back at some of conference sessions, key announcements and award ceremonies held during April's ACI Asia-Pacific & Middle East Regional Assembly, Exhibition and Conference in New Delhi.

16. GROWING CONNECTIVITY

Latest ACI Asia-Pacific & Middle East study shows annual regional connectivity surged 14%, primarily driven by the Gulf hubs and China's reopening to global traffic.

20. MAKING MILESTONES

Completion of the construction of the terminal and runway ensures that the countdown is on to the opening of Western Sydney International Airport.

25. CHANGI'S MEGA TERMINAL

Changi Airport Group provided a sneak preview of its new new mega Terminal 5 at a recent groundbreaking ceremony for the eagerly awaited new facility.





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28. LOOKING TO THE FUTURE

With traffic growth now firmly back on the agenda, airports across Asia, the Pacific and the Middle East are investing in upgrading their facilities, writes Joe Bates.

34. MARKET FORCE

Sunil Tuli, president of the Asia Pacific Travel Retail Association (APTRA) and group chief executive of King Power Group (Hong Kong), reflects on the dramatic rise of Indian aviation as a priority market for travel retail in India and beyond.

38. DRIVING CHANGE

David Keene, CEO of Aurrigo International plc, explores what it will take for aviation to fully embrace autonomous technology and revolutionise the airport experience.

40. THE PLACE FOR GOOD BUYS

Retail innovation will play a key role in enhancing the airport experience going forward, writes Chris Gwilliam, global senior vice president of business development at Airport Dimensions.

43. GREEN CHAMPION

We report on the latest sustainability success of New Zealand's Christchurch Airport.

44. ON THE CASE!

The aviation industry is getting better at baggage handling with the number of mishandled bags continuing to fall globally, led by the Asia-Pacific region.

46. WBP NEWS

The latest news and views from World Business Partners across Asia-Pacific and the Middle East.







IRPORTS COUNCIL

ACI Asia-Pacific & Middle East (ACI APAC & MID) serves as the voice of 127 airport members, operating over 600 airports across 44 countries/territories in Asia-Pacific and Middle East. ACI Asia-Pacific & Middle East is head-quartered in Hong Kong and has a Middle East office in Riyadh (Kingdom of Saudi Arabia). ACI

Asia-Pacific & Middle East represents the collective interests of airport members to promote professional excellence in airport management and operations. ACI Asia-Pacific & Middle East's mission is to advocate for policies and provide services that strengthen its members' ability to serve their passengers, employees and stakeholders.

In 2023, ACI Asia-Pacific & Middle East airports handled 3.43 billion passengers and 51 million tonnes of cargo.



LION PASSENGERS

ACI Asia-Pacific & Middle East key facts:

127

51 MILLION TONNES OF CARGO



4



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VIEW FROM THE TOP

Director general Stefano Baronci reflects on a busy and successful second quarter of the year for ACI Asia-Pacific & Middle East.

s we stand on the cusp of the next decade, a clear imperative emerges for the aviation industry: substantial investment in infrastructure.

The skies of Asia-Pacific and the Middle East are set to witness an unprecedented surge in passenger traffic, with projected annual growth rates of 7.8% and 8.1% respectively. This robust demand underscores an immediate and pressing need for development that not only keeps pace but proactively shapes the future of air travel.

Our recent Infrastructure Investment Survey (see more on pages 28 of this issue) on airport development, released in April, provides a compelling snapshot of this strategic focus.

Over 30 key airports, collectively representing around 30% of the total passenger traffic and 50% of cargo traffic in Asia-Pacific and the Middle East, indicated a strong emphasis on both modernising existing facilities and developing new airport infrastructure.

This dual approach is critical as air travel demand is set to triple by 2042, making expansion and modernisation more vital than ever for maintaining efficiency and safety.

The survey highlights the fact that airports across the Asia-Pacific and Middle East regions are projected to invest \$240 billion on infrastructure development projects between 2025 and 2035.

This investment – as indicated in our latest survey – covers both the upgrade of existing facilities and the construction of new airports to support the growing demand in passenger and cargo capacity.

To underpin this extensive infrastructure expansion, appropriate adjustments to airport charges will be essential. This measure will enable airports to recover capital expenditure, uphold service standards, and accommodate future operational requirements.

Charges will have to be carefully balanced to ensure affordability for airlines and passengers, while securing continuous investment in critical infrastructure.

AIR CONNECTIVITY RANKING

As we completed the CAPEX Survey, we released the highly anticipated Air Connectivity Ranking at the highly successful Air Connectivity Conference 2025 in Shanghai.

The study (see more on pages 16-18) reveals that connectivity in both Asia-Pacific and the Middle East increased by a remarkable 14% in 2024, driven by strong international demand, robust network recovery, and the return of major travel corridors.

The ACI Asia-Pacific & Middle East Air Connectivity Ranking is a comprehensive, passenger-centric analytical tool developed in collaboration with PwC in 2023 and refined for its third edition in 2025.

In Asia-Pacific, intra-regional connections are nearly back to pre-pandemic levels, trailing by just 0.2%. At the same time, intercontinental connectivity is on the rise, showing a solid 4% increase. The Middle East, however, isn't just recovering – it's setting a new pace. Both intra-regional and inter-continent connectivity have not only bounced back but have exceeded pre-pandemic levels by a significant margin of 18% and 16%, respectively.

The Air Connectivity Conference itself, co-organised by China Civil Airports Association and hosted by Shanghai Airport Authority, was hugely successful, attracting over 150 participants from more than 20 countries.

CELEBRATING MILESTONES IN SUSTAINABILITY

Amid these challenges, the aviation industry's commitment to sustainability stands as a notable success story.

In April 2025, our region achieved a new milestone – more than 100 airports participating in the Airport Carbon Accreditation programme, and this figure had risen to 115 airports by May 31. Between them, these airports collectively handle nearly 40% of the passenger traffic across Asia-Pacific and the Middle East, and achieving accreditation demonstrates the strong regional commitment to reducing carbon emissions.

Of the total, four airports from Asia-Pacific – three from India, Delhi (DEL), Bengaluru-Kempegowda (BLR) and Hyderabad (HYD) and one from New Zealand, Christchurch (CHC) – have achieved Level 5, the highest level of the programme.

Globally, there are 637 accredited airports participating in airport climate action across seven levels of the programme.

From an Asia-Pacific and Middle East perspective, we are very pleased to see this level of commitment from airports to reducing their carbon footprint and look

forward to seeing even more airports join the programme as we strive to achieve the industry's shared vision of achieving net zero emissions by 2050.

SUVA DECLARATION

At the 3rd Regional Aviation Ministers Meeting (RAMM) in Fiji, ACI Asia-Pacific & Middle East contributed to the development of the Suva Declaration 2025.

A key priority of the declaration is promoting environmentally sustainable aviation connectivity, including reducing carbon emissions, adopting cleaner fuels, and minimising the environmental impact of air travel.

As a follow-up, ACI APAC & MID will organise the second edition of Airport Day on September 18 and 19, 2025, in Auckland. Hosted by Auckland Airport, the event will support capacity-building for airport members in the Pacific and continue the dialogue with industry regulators on practical pathways to achieving the goals of the Suva Declaration.

REGIONAL ASSEMBLY, CONFERENCE, AND EXHIBITION

Our recent annual event in New Delhi marked another important milestone for ACI Asia-Pacific & Middle East as, during the event, our Board approved a revised Strategic Plan (2024–2026) to better align with industry trends and the evolving needs of our members.

A key focus of the updated plan is to enhance the analysis and communication of the economic and social value that airports generate at the national level.

NEW RESOLUTION

A standout moment from the Assembly was the unanimous adoption of a resolution by airport members, calling for the optimisation of existing capacity and the development of new infrastructure.

With projected air traffic growth of 7% annually over the next 25 years, this resolution supports the critical investments needed to meet demand and maintain long-term competitiveness.

ACI EXTENDS SUPPORT TO MYANMAR

Following the devastating earthquake in Myanmar, ACI Asia-Pacific & Middle East donated \$50,000 to Airlink, a disaster logistics non-profit, to support urgent humanitarian relief efforts.

To further amplify support, we launched a member-wide fundraising campaign. Funds raised will help Airlink ensure the rapid delivery of emergency supplies and personnel to affected regions, providing crucial assistance to communities in need.

APAS

REGIONAL UPDATE

Manager for communications and brand marketing, Yuman Lau, provides a quarterly round-up of the latest news and developments from ACI Asia-Pacific & Middle East.

AIR CONNECTIVITY CONFERENCE IN SHANGHAI



ACI Asia-Pacific & Middle East (ACI APAC & MID), in partnership with the China Civil Airports Association, successfully organised the Air Connectivity Conference 2025, hosted by the Shanghai Airport Authority.

The conference focused on the critical role of air connectivity as a driver of socio-economic development.

Our director general, Stefano Baronci, delivered a comprehensive 'State of the Industry' presentation,

highlighting regional traffic growth forecasts and capital expenditure trends across Asia-Pacific and Middle East. He also emphasised the strong competitiveness of Chinese airports within the global landscape.

While at the conference the DG, Stefano Baronci, met with Zhou Hao and Zhao Haibo, the president and vice president respectively of Shanghai Airport Authority to look at ways ACI can strengthen its collaboration with one of the region's leading airport operators.

ENGAGEMENT WITH THE CHINESE AIRPORT COMMUNITY



ACI APAC & MID has participated in an External Affairs Meeting organised by the China Civil Airports Association (CCAA), and hosted by Sunan Shuofang International Airport Ltd in Wuxi, China.

During the conference, ACI APAC & MID's senior manager for economics, Philip Kwok, presented insights from the latest ACI World Airport Traffic Forecasts 2024–2053, highlighting the leading role of the Asia-Pacific region in driving global aviation growth. In addition, Jacky Wong, our manager for membership services and business development, provided an overview of ACI's key services and accreditation programmes, outlined critical advocacy positions, and highlighted strategic publications and research reports beneficial to Chinese airports.

He also extended an invitation for the Chinese airport community to take an active role in upcoming ACI APAC & MID and ACI World events.

NUBIA WELCOMED AS NEW MEMBER



New Ulaanbaatar International Airport LLC (NUBIA) is the newest member of ACI Asia-Pacific & Middle East — a significant step in strengthening our regional network in Northeast Asia.

Our director general, Stefano Baronci, had the honour of presenting the membership certificate to Tetsuo Noda, CEO of NUBIA and his team, in a symbolic handover ceremony in Ulaanbaatar.

This occasion also provided the opportunity to showcase the wide range of services and programmes available to our members — from climate resilience, technical committees to capacity building. These initiatives are designed to empower our members in delivering excellence and resilience in a dynamic aviation landscape.

STRONG AIRPORT RESPONSE TO CLIMATE ADAPTATION WEBINAR

In collaboration with World Business Partner, AECOM, ACI Asia-Pacific & Middle East successfully hosted a webinar on Climate Adaptation Approach for APAC & MID Airports.

This was the first major milestone of the multi-phase initiative launched in February 2025 to help member airports build climate resilience. The study is now entering its full-scale implementation phase.

Over 50 attendees representing 38 airport operators and aviation organisations across Asia (23), the Pacific (10), Middle East (15) and Europe (2) joined the webinar, reflecting strong regional interest and a shared commitment to addressing climate challenges.

The session featured an active exchange of ideas, questions, and insights, laying the groundwork for deeper collaboration moving forward.

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* WGB member **Regional Advisor on WGB

9

PRE-CONFERENCE WORKSHOP IN DELHI

ACI APAC & MID hosted a communications workshop on 'Crisis Response & Communication: How to Manage Sustainability Achievements' prior to the start of the main Assembly, Conference & Exhibition in New Delhi.

Held on April 15, it brought together communications professionals from leading airports in Asia-Pacific and the Middle East to tackle the growing challenge of promoting green initiatives amid public scrutiny.

Participants explored best practices in communicating environmental achievements; crisis strategies for defending sustainability claims; and aligning messaging with credible, verifiable data.

The session provided timely reminders of the power – and responsibility – of strategic communication in shaping public trust.



AIR TRANSPORT WORKING GROUP SUSTAINABILITY FORUM



Our sustainability expert, Ken Lau, shared his insights on how sustainable airports can overcome climate change challenges at the 51st ASEAN Air Transport Working Group Sustainability Forum in Pattaya, Thailand.

We urged States and airports to step up their climate resilience efforts; Participate in the ACI APAC & MID Net Zero Roadmap Programme; and join the Climate Change Adaptation Study to strengthen airport resilience.

AIRPORT TRAFFIC THINK TANK MEETS IN ATHENS



Airspace constraints, global uncertainties, air cargo growth, and the role of artificial intelligence in forecasting were central topics of discussion at the recent ACI Airport Traffic Think Tank (AT3) meeting in Athens.

The AT3, a specialist sub-committee of the ACI World Economics Committee focused on air traffic forecasting, brought together nearly 70 experts, including traffic forecasters, strategic planners, and business developers from airports across Europe, Latin America, North America, and Asia-Pacific and the Middle East.

Participants discussed shared challenges in forecasting amidst rapidly evolving geopolitical dynamics and shifting international trade policies – factors that directly influence global economic trends, and in turn, affect air travel and cargo demand. The group also explored the growing role of artificial intelligence in enhancing forecasting accuracy through improved data processing and analysis.

NEW LEADERSHIP TEAM FOR HUMAN RESOURCES COMMITTEE

The ACI APAC & MID Regional Human Resources Committee, has unveiled a new leadership team. Tim Yuanhung Ting, director of HR at Taoyuan International Airport Corporation is the new chair of the committee. The new vice chair and second vice chair respectively are Hwai Kar Goh, senior vice president of people services and rewards at Changi Airport Group, and Nasser Alqahtani, general manager of human capital at Cluster2 Airports Company.

GREEN AIRPORTS RECOGNITION WINNERS

MR

Green Airports Recognition 2025 Presentation Ceremony



A record number of participants led to 12 airports being recognised for their excellence in sustainable energy management in this year's Green Airports Recognition (GAR) programme.

The 2025 theme, 'Sustainable Energy at Airports' highlighted the industry's dedication to reducing its environmental impact through innovative energy solutions.

Airports were encouraged to showcase groundbreaking/ innovative initiatives in energy management, including Sustainable Aviation Fuel (SAF), renewable energy sources like solar and green diesel, electric vehicles, green and zero-energy buildings, and various energy optimisation measures.

Twelve airports were recognised with Platinum, Gold, and Silver awards based on airport size and specific criteria. Platinum awards were given to Singapore Changi, Kansai, Christchurch and Hubballi airports for their exceptional efforts in energy management and sustainability.

SHARED SECURITY PRIORITIES AT REGIONAL AIRLINE MEETING

ACI APAC & MID was honoured to be invited as a guest speaker for the 41st Security Committee Meeting of Association of Asia Pacific Airlines (AAPA) in Kuala Lumpur, Malaysia.

ACI APAC & MID delivered a presentation highlighting some of the top security priorities of airports in the region, including the urgent need to increase compliance to ICAO Annex 17 regulations, improving operational efficiency to cope with the rising demand of passenger traffic and addressing emerging security threats against airports. The awards were presented during the ACI Asia-Pacific & Middle East Regional Assembly in New Delhi.

A record-breaking number of submissions for the awards arguably shows the growing priority airports are placing on environmental sustainability and the widespread adoption of best practices in energy management.

"The high-quality number of submissions this year highlights the airport industry's commitment to sustainable energy practices, from renewable energy adoption to eco-friendly operations, SAF integration, and energy efficiency," noted ACI APAC & MID DG, Stefano Baronci.

"These projects set a benchmark for the aviation industry. Congratulations to all recognised airports. We look forward to building a sustainable aviation future together."

You can read more about Christchurch's success in the GAR programme on page 43 of this issue.

WELCOME APPROVAL FOR AUCKLAND INVESTMENT PLAN

ACI APAC & MID expressed strong support for Auckland Airport's infrastructure development plans and therefore welcomes the New Zealand Commerce Commission's recent decision on the airport's 2022-2027 pricing event.

ACI APAC & MID endorsed the New Zealand Commerce Commission's findings, confirming that Auckland Airport's NZ\$6.6 billion investment plan is well-justified. The Association emphasised that the airport's pricing proposal was developed through a rigorous and transparent consultation process with all aviation stakeholders, including airlines, and adheres to the highest global regulatory standards.



DELHI DELIGHT!

We look back at some of conference sessions, key announcements and award ceremonies held during April's ACI Asia-Pacific & Middle East Regional Assembly, Exhibition and Conference in New Delhi.

he New Delhi setting for this year's ACI Asia-Pacific & Middle East Regional Assembly, Exhibition and Conference almost guaranteed that it would provide a rich tapestry of culture, collaboration and strategic dialogue, and it didn't disappoint.

Indeed, more than 400 delegates and 20 exhibitors ensured that this year's event was a lively, colourful and entertaining affair from opening until close.

In his opening address, ACI APAC & MID president, SGK Kishore, reaffirmed the region's unwavering commitment to air connectivity, sustainability, and innovation. He underscored the importance of maintaining the industry's momentum, even amidst global uncertainties.

While Videh Jaipuriar, CEO of event host Delhi International Airport Ltd, shared the meaning behind the event logo – an emblem inspired by India's rich diversity and vibrant culture, symbolising unity across the aviation sector.

Vumlunmang Vualnam, India's then Secretary of the Ministry of Civil Aviation, highlighted India's aviation growth as a symbol of transformation and opportunity, encouraging industry stakeholders to place the passenger experience at the heart of airport operations. He also recognised the remarkable growth of aviation in Asia-Pacific and noted that elevating the passenger experience had to be a top priority.

As always at the event, ACI Asia-Pacific & Middle East's director general, Stefano Baronci, delivered the State of the Industry speech.

Drawing inspiration from history, he reflected on how India once served as a vital hub on the ancient Golden Road, where ideas, culture, and trade flourished well before the Silk Road. As the region continues to emerge as a global aviation powerhouse, he pondered whether today's air connectivity could rekindle that spirit.

He mused: "Can modern air connectivity revive that ancient spirit of exchange and influence?" The numbers, he stated, point to a transformative shift towards air travel, with Asian airports alone expected to be welcoming 9.6 billion passengers annually by 2053 – equal to total global traffic today. Also by then, it is predicted that seven out of the top 10 aviation markets will be in Asia and the Middle East.

He revealed that that airports across Asia-Pacific and the Middle East will be investing more than \$240 billion on



airport infrastructure in the next 10 years, while cargo volumes are set to nearly double, driven by e-commerce and shifting global trade routes.

"But growth won't come easily," he noted. "We need to fix infrastructure gaps, improve air traffic flow, speed up aircraft deliveries, and push for policy reforms."

The DG urged the industry to come together to build a connected, resilient, and sustainable aviation ecosystem that reflects the ambitions of the Asia-Pacific and Middle East region and meets the needs of future generations.

Day 1 of the conference featured a much-anticipated keynote interview with Paul Griffiths, CEO of Dubai Airports. The veteran aviation leader emphasised the robust aviation ties between the UAE and India and encouraged Indian airports to draw on Dubai's lessons in building global hubs.

In the Leaders' Dialogue session, Akihiko Tamura, CEO of Narita International Airport Corporation shared how working closely with different stakeholders and sharing data can help airports use technology better and improve operations. In essence, he advocated for deeper collaboration and transparent data sharing to optimise tech-driven operations.

Delegates also heard from Abd Hasman Abd Muhimin, general manager for operations at Malaysia Airports Holdings Berhad; Captain Digvijay Singh, chief pilot B777 and VP for flight operations at Air India; Takata Hiroyuki, regional officer for air traffic management at ICAO; and Poh Theen Soh, director of Asia Pacific



affairs for CANSO; and Jan Friedrich, regional manager Asia-Pacific for airsight GmbH on how air traffic systems are evolving.

More specifically, they noted that focusing on Air Traffic Flow Management (ATFM) and Airport Collaborative Decision-Making (A-CDM) approaches would help aviation deal with the anticipated increase in traffic in a smarter, more co-ordinated way.

Day 2 of the event began on a high note with the World Business Partners Breakfast, a dynamic gathering of industry leaders, including top airport CEOs and valued members of the World Business Partner (WBP) community.

Indeed, for many it was a unique opportunity to engage directly with airport executives and gain meaningful insights into their strategic priorities over the next five years – ranging from infrastructure development and passenger experience enhancements to upcoming business and tender opportunities.

Key speakers included Mesake Seavula, CEO of Fiji Airports; Ali Masrahi, CEO of Cluster2; Mohamed Yousif Al-Binfalah, CEO of Bahrain Airport Company; and Videh Jaipuriar, CEO, of DEL operator DIAL.

The always popular gathering – which can spark candid conversations between airport leaders and industry business partners – was expertly moderated by Andrew Perrier, group business development director of the Almusbah Group and chair of WBP Advisory Board to ACI World (representative of ACI Asia-Pacific & Middle East).



Later sessions during Day 2 of the conference delved into climate adaptation, non-aeronautical revenues, and digital transformation, highlighting a shift toward datadriven, passenger-centric, and environmentally sustainable airport models.

During the 'Climate Adaptation Approach for APAC & MID Airports' panel, delegates were treated to different strategies for building climate-resilient airports and shared progress updates on ACI Asia-Pacific & Middle East's ongoing adaptation initiatives across the region.

In another session on the non-aeronautical business, top executives from airports, retailers, and associations provided sharp insights into shifting travel patterns, evolving spending behaviours, and how technology and sustainability are shaping the next generation of airport experiences.

Delegates also had the opportunity to listen to an intriguing debate about how digital innovation is diversifying commercial offerings at airports and delivering frictionless journeys for passengers.

MAJOR INVESTMENT IN INFRASTRUCTURE

The size of the infrastructure investment challenge facing the region's airports was outlined by a new ACI APAC & MID study that reveals that airports in the Asia-Pacific and Middle East regions are poised to undergo extensive development, with combined investments of \$240 billion between 2025 and 2035.

ACI APAC & MID conducted a comprehensive survey, comprising over 30 key airports from the region to assess their airport development needs. The findings indicate a strategic focus on both the modernisation of existing airports and development of new airport infrastructure.

You can read more about then association's findings and some of the biggest projects taking place across Asia-Pacific and the Middle East on pages 28-33 of this issue.

YOUNG EXECUTIVE AWARD

During the conference, Naga Satyanarayana Vattipalli of Kempegowda International Airport operator, BIAL, was named as the winner of the ACI Asia-Pacific & Middle East's Young Executive Award for 2025.

The topic of this year's programme was 'How Artificial Intelligence will Transform Airports and Customer Experience'.

In his award-winning paper, Vattipalli explored the opportunities and challenges associated with airports adopting artificial intelligence and related technologies to improve the overall passenger experience and regulatory and ethical considerations, sustainability, and environmental impact.

Stefano Baronci said: "We congratulate Mr Vattipalli for this recognition. With the advent of rapid development of technologies, AI is being applied to provide innovation throughout the entire airport experience.

"The exceptional research paper bring us new visions into the role of AI in aviation and its potential in enhancing airport operations and the passenger experience at large."

The panel of judges also awarded an honourable mention for Patrick Su from Airport Authority Hong Kong for his research paper entitled 'Revolutionising Aviation: The Impact of Artificial Intelligence on Airports and Passenger Experience'. His research paper examined the impact of AI on airports and customer experiences.

This year's panel of judges comprised Ayman Abdulaziz AboAbah, CEO of Riyadh Airports Company; Carrie Hurihanganui, chief executive of Auckland Airport; Tine Haas, director for airports and aviation at Dornier Consulting International GmbH; Dr Manjit Singh, deputy regional director at ICAO's Asia and Pacific (APAC) Office; and Stefano Baronci.



Safety Recognition Awards



AERODROME SAFETY CHAMPIONS

ACI Asia-Pacific & Middle East honoured three airports for their outstanding commitment to aerodrome safety with the presentation of its inaugural Safety Recognition Awards 2025.

Dubai International (DXB) in the UAE, Bengaluru-Kempegowda (BLR) in India and Japan's Tokyo-Narita (NRT) were recognised for their exemplary safety cultures and innovative approaches to promoting aerodrome safety.

The awards were based on submissions detailing successful safety initiatives, with winners selected by a distinguished panel of judges comprising the regional directors of ICAO APAC Office, ICAO MID Office, and ACI Asia-Pacific & Middle East.

Good all-rounder DXB received the top Diamond Award, BLR the Gold Award and NRT the Silver Award in the Safety Recognition Awards.

The winners were selected from a pool of submissions from airports from across Asia-Pacific and Middle East.

Baronci noted: "Safety is the number one priority. The selected airports, carefully scrutinised by ICAO have been awarded for their innovative solutions and represent best practices for other airports to follow.

"We congratulate the winners and commend all participating airports for their commitment to aviation safety."

A RESOLUTION FOR THE FUTURE

At the close of the Assembly, airport members passed a powerful resolution to:

- Promote infrastructure optimisation and expansion
- Enhance air traffic flow and collaborative decision-making

- Encourage public-private investment models
- Embrace sustainability, innovation, and digitisation
- Support lighter regulatory oversight and regional co-operation.

This resolution sends a clear signal – the airports of Asia-Pacific and the Middle East are prepared to lead the aviation industry into a more connected, efficient, and sustainable future.

DONATION FOR MYANMAR EARTHQUAKE RELIEF FUND

An uplifting announcement made during the event was the fact that ACI APAC & MID has contributed \$50,000 to Airlink, a disaster logistics non-profit organisation, to support humanitarian relief efforts in Myanmar following the recent devastating earthquake.

In addition, ACI APAC & MID has launched a campaign amongst its members in aid of the relief efforts in Myanmar. The funds raised from the initiative will enable Airlink to facilitate the rapid delivery of essential aid and responders to the affected regions in Myanmar, providing crucial support to communities grappling with the aftermath of the earthquake.

ACI Asia-Pacific & Middle East president, SGK Kishore, said: "The devastation caused by the recent earthquake in Myanmar is truly heart-wrenching, and as an industry that connects people and communities, we believe it is our responsibility to stand in solidarity during times of crisis.

"This contribution of \$50,000 by ACI APAC & MID will hopefully incentivise broader support across our network. I urge all our member airports and industry partners to step forward and contribute to this critical humanitarian cause. Together, we can make a meaningful difference in the lives of those affected."



GROWING CONNECTIVITY

Latest ACI Asia-Pacific & Middle East study shows annual regional connectivity surged 14%, primarily driven by the Gulf hubs and China's reopening to global traffic.

Cl Asia-Pacific & Middle East's highly anticipated Air Connectivity Ranking 2024 reveals a remarkable 14% year-on-year increase in connectivity across Asia-Pacific and the Middle East, driven by strong international demand, robust network recovery, and the return of major travel corridors.

The Asia-Pacific region witnessed a remarkable 13% jump in overall connectivity compared to 2023, while the Middle East posted an impressive 28% increase, surpassing all post-COVID recovery forecasts.

On average, connectivity across all airports rose in both Asia-Pacific and the Middle East by +14%, a strong testament to the resilience and dynamism of the aviation sector.

In Asia-Pacific, intra-regional connections are nearly back to pre-pandemic levels, trailing by just 0.2%. At the same time, intercontinental connectivity is on the rise, showing a solid 4% increase.

The Middle East, however, isn't just recovering – it's setting a new pace. Both intra-regional and inter-continent connectivity have not only bounced back but have exceeded pre-pandemic levels by a significant margin of 18% and 16% respectively.

KEY FINDINGS INCLUDE:

 Airports in the region saw an average connectivity increase of +14% compared to 2023, indicating a strong industry recovery.

- Airports in Asia-Pacific and the Middle East experienced across-the-board connectivity growth in 2024, driven by China's reopening and route expansions.
- Some 80% of the top 300 airports have fully recovered connectivity levels, with larger hubs leading due to the resurgence of international travel.
- Domestic city pairs decreased by an average of -1% compared to 2023, suggesting a post-COVID emphasis on international expansion.
- International city pairs across all airport categories rose by an average of 17%, highlighting the strong return to cross-border travel.
- While intra-APAC passenger travel in 2024 is nearing 2019 levels, travel to Europe, the Middle East, and Africa has surpassed them, driven by the Gulf hubs. Passenger traffic from Asia-Pacific to the Americas still trails 2019 levels.
- Passenger traffic in the Middle East recovered faster than APAC, showing robust 2024 vs. 2019 traffic, with passenger traffic to Africa and APAC significantly exceeding pre-pandemic levels. Traffic to the Americas remains below 2019.
- Despite increased competition, Dubai (DXB) maintained its position as the leading airport in APAC and the Middle East.



 Major Asian hubs like Incheon, Singapore Changi, Shanghai Pudong and Beijing Capital saw improved rankings and indices, reflecting strong outbound tourism and network adjustments.

Commenting on the report, Stefano Baronci, director general of ACI Asia-Pacific and Middle East, said: "Air connectivity is not only relevant for passengers seeking more travel options and convenience; it is equally crucial for supporting global trade and economic resilience, particularly through bellyhold cargo capacity.

"While we celebrate this growth, we must remain forwardlooking to ensure the momentum is sustained.

"Investment in airport infrastructure and technological upgrades is a prerequisite for enhancing connectivity, and airports across the region are undertaking significant investments to make this possible. "In the face of growing geopolitical and trade tensions, we urge governments to prioritise air service liberalisation, streamlined visa policies, and transparent slot allocation frameworks.

"Lastly, we must not lose sight of the needs of small island and remote communities – air connectivity remains their lifeline."

RISE OF AIRPORT CITY CLUSTERS

The 2025 edition introduces a fresh dimension: an analysis of airport city clusters. Larger urban agglomerations like Shenzhen–Hong Kong–Macau, Tokyo, Shanghai, and Beijing dominate the new City Connectivity Index, demonstrating that the presence of multiple large airports enables higher flight frequencies and diversified routing options.

Clusters such as Beijing and Shenzhen–Hong Kong-Macau have seen a substantial enhancement of connectivity through effective use of secondary airports.



Top 10 Hub Airports with Connectivity Leadership in 2024

1	Dubai International Airport (DXB)
2	Shanghai Pudong International Airport (PVG)
3	Hamad International Airport (DOH)
4	Incheon International Airport (ICN)
5	Guangzhou Baiyun International Airport (CAN)
6	Beijing Capital International Airport (PEK)
7	Bangkok Suvarnabhumi Airport (BKK)
8	Singapore Changi Airport (SIN)
9	Kuala Lumpur International Airport (KUL)
10	Delhi International Airport (DEL)

Seoul, Bangkok, and Taipei lead in per capita accessibility, offering exceptional connectivity relative to population size.

HUB AIRPORTS WITH CONNECTIVITY LEADERSHIP

The 2025 edition features a newly introduced 'Hub Connectivity Index,' which evaluates each airport based on the quality and effectiveness of its hub operations.

Dubai International Airport emerged as the top hub, followed by Shanghai Pudong International Airport and Hamad International Airport.

ABOUT THE AIR CONNECTIVITY RANKING STUDY

The ACI Asia-Pacific and Middle East Air Connectivity Index is a comprehensive, passenger-focused analytical tool developed in partnership with PwC in 2023 and refined for its third edition in 2025.

It measures the overall level of air passenger connectivity provided by airports across the Asia-Pacific and Middle East regions, assessing performance through three fundamental building blocks: network scale and

	Top 10 Airport City Cluster in 2024
1	Greater Bay Area (Shenzhen – Hong Kong – Macau cluster)
2	Tokyo
3	Shanghai
4	Beijing
5	Seoul
6	Bangkok
7	Kuala Lumpur
8	Jakarta
9	Taipei
10	Manila

frequency, economic weight of destinations, and connection quality and efficiency.

These are operationalised through three distinct index components:

- The Direct Connectivity Index quantifies nonstop links, incorporating frequency, aircraft type, and the economic significance of destination airports.
- The Indirect Connectivity Index captures the value of indirect itineraries, accounting for airline partnerships, number of stops, and international reach.
- The Hub Connectivity Index assesses an airport's ability to function as an international transfer point, using factors such as viable transfer windows, route deviation from direct flight paths, and the strength of onward connectivity.

Together, these components provide a multi-dimensional and empirically grounded view of how airports connect people to places, balancing volume, relevance, and the quality of the passenger journey.

645 accredited airports





MAKING MILESTONES

Completion of the construction of the terminal and runway ensures that the countdown is on to the opening of Western Sydney International Airport.

ydney's new 24-hour airport is one step closer to welcoming its first passengers, with major construction works across Western Sydney International Airpport (WSI) now complete.

Indeed, Australian Prime Minister, Anthony Albanese, and Minister for Infrastructure, Transport, Regional Development and Local Government, Catherine King, as well as senior executives from some of WSI's key partners joined airport CEO, Simon Hickey, at the new gateway in early June to celebrate the milestone.

Hickey thanked WSI's design and construction partners that have worked over many years to help bring WSI's terminal to life from the initial design concepts by COX Architecture and Zaha Hadid Architects to the design and construction by Multiplex and Woods Bagot; with overall project delivery alongside WSI by Bechtel.

He also acknowledged the tremendous efforts of CPB Contractors/ ACCIONA Joint Venture that led works on the Airside Civil and Pavement Works, including WSI's 3.7km runway, as well as AeroWest, a Joint Venture between BMD Constructions and Seymour Whyte Construction that completed the Landside Civil and Building Works, including the design and construction of carparks, roads, bridges and utilities.

Drawing on the region's natural beauty, WSI's new terminal marries sustainable-by-design principles and innovative technology to deliver a seamless experience for airlines and passengers at Australia's first new greenfield international airport in more than 50 years.

"Global architecture leaders Zaha Hadid Architects, based in London, and one of our nation's top firms COX Architecture were selected to develop the initial design concepts of WSI following a competition in 2019 that attracted more than 40 international and domestic proposals," noted Hickey.

"Fast forward six years and WSI is on the precipice of launching a seamless and stress-free airport experience unlike any other in Australia, giving our global city a 24-hour international gateway that will continue to create significant economic opportunities for all of Greater Sydney."



Hickey believes that the terminal design is emblematic of the World Heritage-listed Greater Blue Mountains Area as well as the Cumberland Plain and the region's incredible First Nations culture and history.

"People will love spending time in this terminal as they enjoy the iconic vistas of the surrounding Blue Mountains that are reflected in our stunning feature ceiling and take in the thoughtful design and materials like the extensive use of beautiful sandstone that was sourced from a quarry on the Central Coast," he predicted.

"Visitors will be welcomed by the stories of Dharug country that will connect the world with more than 60,000 years of Aboriginal culture while also highlighting the vibrant communities of Western Sydney."

The terminal has a climate-responsive facade, and more than 6,000 solar panels affixed to its roof to provide energy efficiency and renewable electricity, reducing the airport's carbon footprint.

In addition, it will collect and recycle rainfall for use in airport operations such as bathrooms, irrigation, and cooling towers.

Passengers flying out of WSI will experience a streamlined departure with access to next generation technology to help them move through the airport at speed, while both

WSI FACTS & FIGURES

- WSI will open with one runway, which can cater to 10 million passengers a year from day one of operations.
- The runway can accommodate up to Code F aircraft, which includes the A380 and B747-8.
- WSI will be Australia's first airport without a traditional air traffic control tower and will operate as a digitised aerodrome.
- 30km of high voltage cable, 32km of low voltage cable and about 100km of fibre optic cable were installed that support the airfield's lighting and communication systems.
- A team of 30 paving experts placed 140,000 tonnes of asphalt on the runway – the equivalent of 70 soccer fields in size.
- Around 73,000 cubic metres of concrete paving was required.
- 4.2 million square metres of landscape revegetation and maintenance was carried out – the equivalent of 551 football fields.
- Six million tonnes of sandstone from Sydney-based tunnelling projects was saved from landfill and used as base layers in the 3.7km runway and site road network.

domestic and international gates are under one roof, making travellers connections simple and efficient.

Hickey acknowledged the thousands of workers who've helped bring WSI to life, and the more than \$500 million the airport has spent with businesses based in Western Sydney.

He stated: "WSI has been the catalyst for billions in investment in the region and has helped create thousands of local jobs during construction and will bring even more opportunities across our precinct and the surrounding Bradfield City and Aerotropolis once the airport opens.

"Since the first sod was turned, nearly half our workforce has hailed from Western Sydney, with around a third learning on the job, so the region should be immensely proud of this new terminal as so many workers, businesses, manufacturers, and suppliers have literally helped bring it to life. This is their legacy."

While major construction of the WSI terminal is complete, the fit-out of the terminal's retail precinct and airline lounges will take place closer to the airport's opening as commercial tenders and final contracts continue to progress over the months ahead.

AIRFIELD EQUIPPED TO HANDLE THE A380

In late May, Hickey described the completion of the airport's 3.7km runway as a "significant step" in the delivery of the city's self proclaimed "24-hour airport".



APA&MID Issue 2, 2025

The runway, which will be capable of accommodating aircraft up to the size of the A380, was the first key piece of infrastructure to be completed at the gateway.

Speaking at the time, he noted: "The work to build our runway and supporting airside facilities has been years in the making – during which workers have literally moved mountains to create a modern, technology-enabled airfield that will soon welcome planes and passengers.

"Our runway will be equipped with modern technology and our rapid exit taxiways mean WSI's average taxing time will be around five minutes, significantly shorter compared to other airports around the world, which will get people home and away faster."

Hickey said there have been millions of work hours put into this critical piece of WSI's infrastructure with thousands of workers contributing toward the extensive construction project since the bulk earthworks contract was awarded in 2019.

"The site has been transformed to build our 3.7km runway, equipped with approximately 3,000 aeronautical ground lights and 348 high intensity approach lights, which will cater for up to 10 million annual passengers from day one of operations next year.

"Part of our runway certification also involved a Piper PA-30 Twin Engine Comanche aircraft successfully completing multiple take offs and landings on our runway in October last year to ensure the lighting and technology systems were operating effectively."

The CPB Contractors/ACCIONA Joint Venture led works on the Airside Civil and Pavement Works package (ACP), which was also overseen by WSI's delivery partner, Bechtel.

Aside from WSI's runway and lighting, the ACP package also involved the design and construction of the taxiway pavements, aircraft pavement markings, airside roads, surface water drainage, airside security fence and landscaping.

CPB Contractors project director, Christian Byrne, stated that the CPB Contractors/ACCIONA Joint Venture team is very proud to have been a part of this transformational project.



Image courtesy of Trevor Mein.

He enthused: "Successful delivery of the ACP project required millions of tonnes of high quality, high strength, quarry materials to be sourced and imported into the site, then processed and placed in the aircraft pavement areas, to construct the aviation pavements to strict specifications, which took an enormous effort from a large team.

"The aircraft pavements were constructed with an excellent team culture and commitment to working safely, and we developed and delivered an Australian-first paving methodology of 'true-slip forming' the concrete aircraft pavements – improving productivity and safety as well."

The airport's newly released inaugural master plan outlines some truly bold ambitions for WSI, which Hickey believes will act as a catalyst for growth and development of the Western Sydney economy.

"Our vision over the next two decades is for WSI to become the gateway of choice to Australia and the world – connecting people, places and opportunities," he said.

QUOTES FROM THE DESIGN AND CONSTRUCTION TEAM

COX Architecture's principal and design lead, David Holm, said: "At COX, we've always believed in the power of public architecture to shape cities across generations. Few projects align so closely with that mission as this – a new airport, for a new generation."

Zaha Hadid Architects' director and design lead, Cristiano Ceccato, said: "This is a rare opportunity to define the next generation of airport design on a global stage. What makes this terminal extraordinary is its blend of human-scaled design and international ambition. It is grounded in its setting – and yet globally competitive."

Woods Bagot principal and design lead for WSI, Neil Hill, said: "The terminal offers a constantly evolving visual experience and sense of joy as passengers move through the space and experience the intricate detail at a human scale – while elsewhere you might find yourself in a soaring triple-height void with uncluttered panoramic views."

And Bechtel Infrastructure president, Darren Mort, noted: "This milestone highlights the strength of [the design] partnership: Multiplex's construction expertise, WSI's focus on project delivery, operations and passenger experience, and Bechtel's expertise in the overall construction integration, schedule, and delivery. Together, we've delivered a world-class terminal that will open a new chapter in Australian aviation."

"Beyond the direct A\$5.3 billion investment to build the airport, state and federal governments have also invested more than A\$17 billion in rail and road infrastructure that's connecting the west to the west and the west to the rest like we've never seen before.

"Greater connectivity enables more job opportunities and business growth. In fact, forecasts indicate investment in NSW will be A\$96 billion higher by 2063, with A\$85 billion of that increased investment in Western Sydney, due to WSI's development and its related investments."

WSI's Plan also forecasts that the airport will be responsible for 6,000-8,500 jobs by the time passenger numbers reach 10mppa in around 2033, presenting meaningful employment opportunities for people living across Western Sydney and beyond.

The airport is built for growth, with plans in place that will eventually see WSI become Sydney's biggest international airport, handling more than 80 million annual passengers, which is akin to London's Heathrow airport today.



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CHANGI'S MEGA TERMINAL

Changi Airport Group provided a sneak preview of its new new mega Terminal 5 at a recent groundbreaking ceremony for the eagerly awaited new facility.

significant step in the development of Changi Airport took place on May 14 when Singapore's Prime Minister Lawrence Wong officiated at the groundbreaking ceremony for the gateway's Terminal 5.

Airport operator Changi Airport Group (CAG) describes Terminal 5 as a 'mega terminal' that will strengthen the airport's position as a leading air hub.

According to Changi Airport Group (CAG), T5 will be powered by state-of-the-art airport systems and extensive automation that will allow the airport to significantly increase its handling capacity, optimise operations and leverage new opportunities as travel demand continues to increase in the decades ahead.

Although linked to the existing terminals at Changi Airport, CAG notes that Terminal 5 can operate as a single integrated air hub.

It is designed to handle about 50 million passengers annually in its first phase which is expected to open in the mid-2030s. With Asia-Pacific projected to be among the fastest growing air travel markets over the next two decades, CAG says the additional capacity at T5 will enable Singapore to ride on the long-term growth of aviation in the region and beyond.

The Singapore Airlines Group, which currently operates across three terminals, will consolidate its operations under one roof at T5. There will also be room for other air carriers to expand their operations at T5 and Changi's other terminals.

ENHANCED CONNECTIVITY

For the first time, T5 will see Changi Airport house a ground transportation centre, bringing together train, bus, taxi and other transport services.

This, says CAG, will enhance Changi's connectivity to the rest of Singapore, making the airport accessible not just for travel, but also as a destination for "local residents to enjoy".

Plans are in progress to extend both the Thomson-East Coast Line and the Cross Island Line to T5, to connect it to the city centre and other major hubs.



Terminal 5 also offers the possibility of enhanced air and sea connectivity – for more seamless passenger travel, including convenient connections to neighbouring destinations via ferry services.

A TERMINAL OF THE FUTURE

The new mega terminal will see extensive automation of both passenger-facing processes and back-end functions, powered by innovative technologies that are being trialled today for wider implementation by the time T5 opens.

This, notes CAG, will enable the airport to operate technologies at scale in a sustainable manner, with reduced reliance on manpower.

In addition, T5 will be a Green Mark Platinum Super Low Energy building, which is more energy efficient.

It will be powered by more clean energy to reduce the carbon footprint of Changi Airport and be equipped with building management systems that feature innovative and efficient systems design.

The terminal's rooftop solar system, which would be one of the largest in Singapore, could potentially generate enough energy to power about 20,000 4-room HDB flats for a year.

A MEGA-YET-COSY TERMINAL

Inspired by Singapore's unique blend of nature and city, T5's design concept is said to be characterised by a unique collection of overlapping curved roofs with varying heights.

The 'roof leaves' break the mega terminal building into smaller spaces that are more human scale. Combined with natural light and landscaping at appropriate spaces, the terminal will have the familiar cosy, yet uplifting, feel that Changi is known for. To make it easier for passengers to get around the terminal, travellators as well as an automated people mover (APM) system – similar to the Skytrain – will reduce walking distances.

The walking distances in Terminal 5 will be comparable to Changi's current terminals. The APM network will also link T5 to Terminal 2, facilitating seamless transfers to the other terminals.

According to the airport, T5 is also designed to be intuitive for wayfinding, with paths that lead passengers either to the boarding gates or the APM station, where trains will take them to their gates.

Passengers, it says, will not need to rely heavily on signage to find their way around the terminal.

CAG CEO, Yam Kum Weng, said: "Our vision is for T5 to be mega yet cosy, a terminal that embraces the Changi DNA – delivering a personalised, stress free and positively surprising airport experience.

"As a new gateway to Singapore, T5 offers new possibilities and will bring new surprises. It will offer yet another vibrant space for families, friends and the airport community to gather and bond."

Incorporating lessons learnt from the global pandemic, T5 will have the flexibility to operate as smaller sub-terminals when needed to facilitate the management of high-risk passengers.

It will also feature systems such as contactless touchpoints that can help to reduce disease transmission.

T5 will be located at Changi East, a 1,080-hectare development which also includes the Changi East Industrial Zone (CEIZ), and the Changi East Urban District (CEUD).

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With traffic growth now firmly back on the agenda, airports across Asia, the Pacific and

the Middle East are investing in upgrading their facilities, writes Joe Bates.

APA&MID Issue 2, 2025

ccording to data from ACI Asia-Pacific and Middle East, airports across both regions are poised to undergo extensive development, with combined investments of \$240 billion dedicated to both upgrading existing facilities (brownfield projects) and building new airports (greenfield projects) between 2025 and 2035.

This capital expenditure, revealed by ACI Asia-Pacific & Middle East (ACI APAC & MID) during its annual Assembly, Conference and Exhibition in New Delhi in April, highlights the regions' commitment to meeting the increasing demand for air travel and cargo.

ACI APAC & MID conducted a comprehensive survey, comprising over 30 key airports from the region to assess airport development needs.

The findings indicate a strategic focus on both modernisation of the existing airports and development of new airport infrastructure.

 Brownfield Development (Modernisation of existing airports): More than \$136 billion would be invested to upgrade existing airports, creating an additional 680 million passenger capacity and 14 million tonnes of cargo capacity.

Greenfield Development (Development of new airports):
In excess of \$104 billion will be allocated to build new airports, adding 562 million passenger capacity and 57 million tonnes of cargo capacity.

This combined investment will create additional capacity for 1.24 billion passengers – the equivalent of more than

13 airports the size of Dubai (DXB), the world's busiest airport for international passengers – and 71 million tonnes of cargo capacity, which is nearly 14 times the cargo throughput of Hong Kong (HKG), the top ranked airport for cargo in the world.

This significant increase will ensure airports in Asia-Pacific and the Middle East are well-equipped to handle anticipated future growth.

ACI Asia-Pacific & Middle East president, SGK Kishore, said: "The \$240 billion investment is not just about concrete and runways, it's about socio-economic development in the region.

"Enhanced passenger experiences will stimulate tourism and business travel, while bolstered cargo capacity will streamline supply chains, driving regional trade and development.

"We are committed to working with our member airports and stakeholders to ensure these investments deliver tangible results to the local and regional economies."

ACI APAC & MID's director general, Stefano Baronci, said: "The investment marks a critical step in transforming sector and delivering high-quality experience to passengers.

"The investment will create additional capacity in the medium-to-long- term. However, infrastructure development alone cannot support the growth to its full potential.

"In today's increasingly complex economic landscape, we need the continuous support of governments to further



liberalise air transportation and streamline visa policies across region. These are proven drivers of economic development. In contrast, protectionist measures ultimately hinder progress and limit opportunity."

ACI Asia-Pacific and Middle East states that the projected \$240 billion investment in infrastructure over the next decade reflects a pragmatic and demand-responsive approach to capacity planning.

Rather than overextending, it notes that airports in these regions continue to align investment closely with market conditions and passenger demand forecasts, ensuring capital is deployed efficiently and sustainably.

Indeed, according to ACI APAC & MID, this disciplined approach reflects a broader commitment to resilient and adaptive infrastructure planning, positioning the sector to support regional growth while maintaining financial prudence and operational agility.

By 2053, the Asia-Pacific and Middle East regions are expected to serve nearly 11 billion passengers, close to a three-fold increase from the 3.9 billion passengers in 2024.

On the following pages we highlight a number of infrastructure development projects that are either on the drawing board, ongoing or have been successfully completed by airports seeking to ensure that they have the facilities and the capacity to meet demand and avoid becoming victims of their own success.

LONG THANH SET TO OPEN IN LATE 2026

The first phase of Vietnam's new \$4.6 billion gateway, Long Thanh International Airport, is on target to open in late 2026, according to local news reports.

Vietnam's Minister of Construction, Tran Hong Minh, recently visited the airport site when Le Quyet Tien, Director of the Department of Economics-Construction Investment Management at the Ministry of Construction, revealed that the construction of several key projects is being accelerated.

These include the construction of the terminal's roof, second runway, 115-metre-tall air traffic control tower, aircraft catering facilities roadways, bridges and maintenance hangars.

Long Thanh's main 4,000-metre-long runway, Runway 1, was completed on April 26, 2025, three months ahead of schedule and, according to reports, the lighting system has been successfully tested and is ready for calibration flights.

Concluding the meeting, Minister Tran Hong Minh stated that people of Vietnam have placed a lot of trust and hope in the Long Thanh airport project because it is a large project being built by Vietnam for Vietnam.

BANGKOK SUVARNABHUMI EXPANSION

Airports of Thailand (AoT) has confirmed the ambition to upgrade Bangkok-Suvarnabhumi Airport (BKK) to equip it to handle up to 150 million passengers per annum by 2033.

AoT's \$4.3 billion master plan for BKK, which currently accommodates around 60mppa, includes the eastern expansion of existing terminal, the construction of a U-shaped South Terminal, addition of a fourth runway and a new Automated People Mover (APM) system to link the new terminal with the main passenger terminal.

AoT notes that the \$365 million East Expansion project for the main terminal will raise BKK's design capacity by 15mppa to 80 million. Construction is scheduled to begin in November, with completion expected by 2028. The expansion will increase the terminal's footprint to 480,000 square metres.

The huge new South Terminal is expected to feature around two kilometres of kerbside and be capable of handling 70mppa on its own when it opens 2033.



At its heart will be a 200,000-square-metre 'Mega Terminal' boasting commercial areas, shopping, and dining facilities accessible to both travellers and the public.

Earlier this year, Thailand's King Maha Vajiralongkorn Phra Vajiraklaochaoyuhua and Queen Suthida Bajrasudhabimalalakshana officially inaugurated BKK's new Midfield Satellite building (SAT-1) and third runway.

NEW TERMINAL 3 AT TAN SON NHAT INTERNATIONAL AIRPORT

Elsewhere in Vietnam, the Airports Corporation of Vietnam (ACV) reports that the newly opened Terminal 3 at Ho Chi Minh City's Tan Son Nhat International Airport has been warmly welcomed by passengers and helped reduce congestion in Terminal 1.

On May 20, ACV stated that in its first month of operations, Terminal 3 handled 1,464 flights and served 355,306 passengers, "ensuring operational safety, at the same time proving its important role in improving the capacity and quality of aviation services at one of the busiest airports in the country".

Equipped with E-gates and other "advanced aviation technologies focused on the passenger experience", the airport operator notes that T3's self-service systems have provided travellers with a smooth departures process, courtesy of shared automatic check-in kiosks for both passengers and baggage.

In addition, it notes that Terminal T3's facilities include a wide range of shops and restaurants, free drinking water stations, phone charging areas and offers free Wi-Fi access.

CHONGQING JIANGBEI OPENS GIANT NEW TERMINAL

Chongqing Jiangbei International Airport unveiled its new T3B terminal in April, marking a significant milestone in its ambitious expansion programme.

The new addition means that the south west China located gateway now has three terminals, one satellite hall, four runways and cargo facilities capable of handling up to 80 million passengers, 1.2 million tonnes of cargo and 580,000 aircraft movements annually.

T3B is said to boast advanced smart features and intelligent technology that have transformed traditional passenger processing procedures.

It notes that 151 of its 222 boarding gates now utilise facial recognition self-service technology capable of processing passengers in as little as five seconds.

Autonomous trains will link the 360,000sqm T3B with the airport's other terminals

Adding to the terminal's futuristic appeal are 22 multifunctional "compass box" robots that integrate flight information display, broadcasting, surveillance, and fire safety functions.

The airport currently operates over 40 international routes with nearly 200 weekly flights connecting North America, Europe, Oceania, the Middle East, Japan, Korea, and Southeast Asia.

WORLD EXPO VISITORS ENJOY KIX'S NEW-LOOK TERMINAL 1

Kansai International Airport's fully refurbished Terminal 1 opened as planned a few weeks ahead of the World Expo in Osaka which is expected to attract millions of extra visitors to the region this year.

The upgrade to the iconic terminal building has increased the size of the international departure lounge by 60%, providing space for new retail offerings, the introduction of innovative retail layouts based on passenger experiences, and the creation of a seamless processing experience.



Kansai Airports and global design firm Populous have been working for more than seven years to completely reimagine the airport's floor plan, bringing a new level of efficiency and experience for travellers to western Japan.

Populous led the architecture and interior design of the redevelopment, as well overseeing the project throughout construction.

The project was completed in four phases to allow for continued operations of the airport, which is expected to accommodate more than 40 million passengers a year from 2025 and almost double its international capacity.

The final phase of the project was completed in late March 2025 to allow for the consolidation and extension of the security screening area ahead of World Expo 2025, which began in April in Osaka.

A new commercial area in Terminal 1 includes 13 stores across international departures, international arrivals and a street food court.

Regarded as part of the high-tech architecture movement of the 1990s, KIX's industrial design is famous for its asymmetrical clear span sweeping aerofoil roofline.

At 1.7 kilometres long, it is one of the longest airport passenger terminal buildings in the world.

BECHTEL TO HELP DELIVER RIYADH'S KING SALMAN INTERNATIONAL AIRPORT

Bechtel has signed an agreement with the King Salman International Airport Development Company to serve as the delivery partner for three new terminals at King Salman International Airport (KSIA) in Riyadh.

Signed during US President Donald Trump's visit to Saudi Arabia, the agreement highlights growing US-Saudi infrastructure ties and builds on Bechtel's experience delivering more than 300 projects in Saudi Arabia, including the recently opened Riyadh Metro.

The airport, expected to be the world's largest when it opens in the coming decade, is a pillar of Saudi Arabia's Vision 2030 that will serve as an economic engine for Riyadh and the surrounding region.

"The King Salman International Airport is a landmark project that will reshape Riyadh and enhance the lives and communities it serves," said Darren Mort, president of Bechtel's infrastructure business.

"We have delivered some of the world's largest and most complex airports, incorporating innovative and sustainable solutions, and look forward to partnering with the King Salman International Airport Development Company to bring their vision of a world-class passenger experience to life."

When fully completed, the airport is expected to boast six parallel runways and be capable of handling up to 185 million passengers and 3.5 million tons of cargo annually by 2050.

Bechtel will work with the King Salman International Airport Development Company to manage delivery of a terminal for commercial carriers, Terminal 6 for low-cost carriers, and a new private aviation terminal with hangars.

The project team will prioritise achieving LEED Platinum certification by integrating innovative sustainable practices into the design and construction of all three terminals.

The terminals will absorb or replace all existing facilities of the King Khalid International Airport.

NEW OMANI AIRPORT

The Sultanate of Oman is set get a new \$250 million gateway to replace the capacity constrained Khasab Airport located in an Omani enclave on the Musandam Peninsula.



With the design process for the planned new Musandam Airport now complete, Oman's Civil Aviation Authority is inviting bids from consultancy companies to carry out a value engineering study for the gateway, which is slated to open in the second half of 2028.

According to reports, Musandam Airport will be developed in two phases, initially boasting a 250,000 passengers per annum capacity terminal and a single 2,500m metre long runway runway capable of handling aircraft up to the size of the B737 and A320.

A proposed second phase will see the runway lengthened to 3,300 metres, with the ability to handle widebody aircraft, an expansion of the terminal building, more taxiways, and enlarged apron areas.

The new airport is one of several scheduled to be built, or expanded, under plans by the Sultanate to improve its aviation infrastructure.

The Musandam Peninsula, overlooking the strategic Straits of Hormuz at the mouth of the Arabian Gulf, is an Omani exclave, separated from the rest of Oman by UAE territory.

The enclave's current gateway, Khasab Airport, has operational constraints that include the inability to operate on a 24-hour basis.

FIRST ANNIVERSARY FOR YANTAI PENGLAI'S TERMINAL 2

It may not be brand new having opened its doors to the travelling public in June 2024, but Yantai Penglai International Airport's Terminal 2 (pictured above) is worthy of mention because of its stunning architecture and the difference it has made to the Chinese gateway.

Located to the south of T1, the addition of Terminal 2 means that the Shandong province gateway is now equipped to handle up to 23 million passengers and 200,000 tons of cargo annually.

According to lead design architect, Aedas, the project adheres to the concept of 'being holistic, ecological, efficient, flexible, and intelligent.'

Sporting an E-shaped layout with the main building parallel to the runway, the expansion includes a south concourse, a south apron, a second runway, and car parks.

Aedas notes that Yantai is known for its unique coastal mountain-scape, and that the sweeping roof form of the terminal is inspired by the Yantai's majestic Kunyu Mountain.

It states: "Undulating skylights bring light deep into the terminal's Departures check-in and processing halls. The concourses are arranged to form a long coastline, with generous bays for aircraft parking and circulation. Skylights over the concourses guide passengers intuitively towards the departure gates."

Being built in phases to maximise the airport's potential to grow, plans are already in place to expand T2's footprint from 167,000sqm to 200,000sqm by 2040 to raise its capacity to 34mppa.

NEXT STEP FOR QUEENSTOWN AIRPORT

Queenstown Airport is about to begin the next major project in its capital development programme.

Over the next 14 months, the terminal building will be extended north towards the airfield to provide 800sqm of new office and operational space for Air New Zealand, PlaneBiz (Menzies Aviation) and Aviation Security Service.

Fit out of the new space and renovation of existing offices will then proceed in stages, with the overall project scheduled for completion early in 2027.

"This will give airline staff working behind the scenes a much better work environment, and will also improve operational efficiency," says project manager, Greg Emms.



The extension will include a non-passenger screening room where airport workers, contractors, and visitors will undergo security checks before entering restricted areas. The project also incorporates significant electrical upgrades.

A new 1.5 MVA transformer will be installed and connected to the high-voltage network at Lucas Place. A new main electrical switch room and a new airfield ground lighting power centre will also be constructed. Once these are operational, the existing Airways power centre building will be demolished.

"This is an important investment in resilience," added Emms. "Queenstown Airport is an essential community asset, and we need to ensure our critical infrastructure is robust."

Queenstown Airport is also spending about NZ\$10 million on the final two stages of a programme to seismically strengthen the structure of the terminal and increase its ability to withstand an earthquake.

The project involves a combination of structural steelwork, bracing, micro piling, and the reinforcement of columns. Contractors have started in the baggage hall and will soon move into the check-in area, then into the centre of the terminal. The work is all being done at night and is expected to take about 17 months to complete.

"This seismic strengthening project underscores Queenstown Airport's commitment to the safety of our passengers, staff, and wider community," stated chief operating officer, Todd Grace. "It is also an important part of our efforts to enhance the airport's infrastructure and our preparedness for a natural disaster."

MASS PASSENGER EXERCISE HELD AT NEWCASTLE'S NEW TERMINAL

In a major step before opening, Newcastle Airport's new international terminal came to life on June 10 as over 120 local volunteers helped test the facility during a full-scale Mass Passenger Exercise.

With surfboards in tow, guitars slung over shoulders and bags packed to the brim, participants from across the Hunter took on the role of international travellers at the Australian gateway.

They moved through check-in, security screening, border controls and baggage collection while airport staff and partner agencies closely observed.

Newcastle Airport CEO, Linc Horton, thanked the community for turning out in force to support their airport and said terminal preparation and readiness could not happen without them.

"Thank you also to Business Hunter, the University of Newcastle and Port Stephens Council for supporting our Mass Passenger Exercise and getting the message out for volunteers," enthused Horton.

"Our terminal was absolutely buzzing today with people showing up ready and excited with their bags, surfboards, oversized luggage and even a service dog, people with reduced mobility and hidden disabilities to help us test accessibility. That level of detail and support is what makes this region special.

"The Mass Passenger Exercise marked the end of the construction phase and the beginning of the new international terminal's operational journey. We're now moving from build to activation and today was about making sure we are ready to deliver from day one."

Newcastle Airport's new terminal will support Jetstar's direct flights to Bali from October with further domestic and international services expected to follow.

As one of the most significant infrastructure investments in the region, the terminal will enhance tourism, trade and connectivity.



MARKET FORCE

Sunil Tuli, president of the Asia Pacific Travel Retail Association (APTRA) and group chief executive of King Power Group (Hong Kong), reflects on the dramatic rise of Indian aviation as a priority market for travel retail in India and beyond.

he world's fastest-growing major economy has an aviation sector that is battling to keep pace with the demands of India's rising middle class and the world's largest Gen Z population.

With 40,000 new passports issued every day and plans for up to 200 new or expanded airports, India's aviation sector is on a remarkable growth path.

Prime Minister Modi's government has set its ambition for India to become a high-income, developed economy by 2047 with a GDP forecast of up to \$35 trillion, potentially overtaking the US economy in GDP.

While the targeted focus on 2047, the centenary year of India's independence may seem a little contrived, the progress seen over the past few years demonstrates that India is certainly in the fast lane, delivering the world's fastest-growing major economy (UN data) and the potential to become the world's largest economy.

With GDP growth rates of between 7.2% and 8.4% over the past four years, India's economy is about to pass

the \$4 trillion per year mark, making it the world's fifth-largest economy.

It is set to overtake Japan later this year and, if it maintains its growth path, it will overtake third-placed Germany in 2027, and PwC projections suggest its GDP could even exceed that of the US by 2060.

India's population, reaching 1.47 billion this year, has overtaken China's and, alongside a rapidly growing middle class, its Gen Z population is the foundation for further long-term growth, creating a remarkably powerful and appealing consumer target base for everyone from luxury brands to airlines and airports.

With a rising economy comes a surge in demand for air travel from Indian consumers keen to travel the world.

Figures from the Airports Authority of India show that the number of operational airports in the country has more than doubled from 74 in 2014 to 157 in 2024, and the government claims that this could increase to almost 400 by 2047.



- Traffic totalled 376.4m in FY2024 (domestic and international)
- Non-metro airports account for nearly 40% of total passenger traffic, with 146 million passengers in FY24.

A forecast by Indian aviation consultancy YCP Auctus, presented at the APTRA India Conference 2025, suggests a lower figure of around 288, but still an extraordinary scale of development.

India's Public-Private Partnership (PPP) model is further expanding the number of new airports and airport expansions, with over a dozen currently operating this model, and the Ministry of Civil Aviation is developing PPP modalities for the privatisation of 25 airports under the National Monetization Pipeline plan.

The Indian government's long-term strategic planning programme is a comprehensive, joined-up approach that aims to develop the country's transport infrastructure by recognising the interdependence of air, road, rail and water transport infrastructure.

Aviation is a key priority and is founded on the UDAN policy, meaning "Let the common citizen of the country fly", rapidly expanding domestic air travel accessibility to the wider population.

Building on the successful expansion of India's major airports, this policy has significantly increased connectivity to smaller cities (Tier 2 and 3) and remote areas, making flying an everyday convenience accessible to a much larger proportion of India's surging population. Outbound travel is projected to reach 52 million by 2029, with a CAGR of 11.5%

The ambition to provide financially viable regional flight routes with capped airfares is inevitably complex in its influence on the market, but these routes aim to connect over 100 smaller airports in towns to India's major cities.

This also includes seaplanes and helicopter services. Similarly, the National Air Cargo Policy has aided the development and expansion of the country's cargo operations, strengthening India's position as a logistics powerhouse and, linking with the huge focus placed on the technology sector and education – especially in expanding the female workforce – is facilitating the rapid growth of e-commerce.

One remarkable example of the success of the strategy is the fact that the comprehensive planning and new thinking behind India's growth of its aviation system has resulted in 15% of India's pilots being female, far above the global average of around 5%.

Government initiatives like UDAN and regional airport privatisation are unlocking new markets, with non-metro airports now accounting for nearly 40% of total passenger traffic.

Outbound travel is also surging, with international departures expected to reach 52 million by 2029, positioning India as the fastest-growing market in South Asia.



The expansion is unlocking new market access and bringing emerging traveller segments into the market and influencing retail trends from Dubai to Denpasar.

APA&MID Issue 2, 2025

While India's growth is clearly impressive, it is rising from a relatively low base and, in everything from earnings per capita to annual passenger numbers and flights per capita, the country still has far to go to overtake China, for example, but it is a huge country with an increasingly affluent, young population that prioritises international travel and discovery.

INDIA'S AIRPORTS – TRANSFORMING CAPACITY AND THE PASSENGER EXPERIENCE

Central to the country's aviation focus is the positioning of India's major airports as hubs connecting the East and the West.

The international airport experience has been transformed in India, led by stunning locations such as Delhi Indira Gandhi International Airport (profiled in the last issue of Asia-Pacific & Middle East Airports magazine), where operator DIAL has developed what it describes as 'a bigger, better, smarter, and future-ready' airport by blending a capacity of 100 million per annum (with the potential to rise to 140 million) with quality in its ASQ award-winning passenger experience.

The airport has a continuing programme of major developments planned for the next decade to strengthen its role as India's 'flagship hub'.

Similarly, Bengaluru's Kempegowda International Airport has created an even more expansive transformation, setting a global benchmark with new levels of customer service in the remarkable T2 – the 'terminal in a garden' – that shares a stunning celebration of the city's culture, heritage and people. Major investment developments at Mumbai, Chennai, Bengaluru, Kolkata, and Hyderabad are also strengthening India's ambition to be a competitive hub to the GCC.

Leading the way for infrastructure essential to achieve India's growth ambition is Navi Mumbai, the largest of seven major new population centre developments, supported by a new airport, Navi Mumbai International Airport, that will start operating commercial flights in the next few months following its official inauguration in June.

With an initial capacity of 20 million passengers, it will expand to 50 million by mid-2029 following the addition of another terminal and runway. Subsequent planned phases will reach an eventual goal of 90 million passengers per annum by 2036.

Jewar Airport, Noida, with six runways planned, is envisaged to become India's largest airport and, though delayed, the first phase is scheduled to open soon and will help ease the pressures on capacity at Delhi Indira Gandhi International Airport.

AIRLINE GROWTH

In tandem with the country's transport policy, India's airlines are leading the global industry in aircraft orders to utilise those airports, collectively placing orders for approximately 1,700 aircraft to be delivered by 2030.

Last December, Air India augmented its existing mandate of 470 planes by an additional 100, reflecting its confidence in the long-term market.

With new airports and new aircraft come new travellers – including an anticipated year-on-year growth rate of 5-6% in passenger traffic.

NON-AERONAUTICAL REVENUE OPPORTUNITIES

With those 40,000 new passports expanding the potential travel market every single day, Indians are passionate about

While this growth has already been impressive, India still has significant ground to cover to catch up with other global aviation markets.



international travel, and this desire for new experiences brings them right to Travel Retail's shop window.

India's middle classes have a passion – and the wallet – to travel the world. Consumer spending abroad has reached record levels, and the good news for the aviation and travel retail sectors is that their spending priority is foreign travel, increasing from 37% of spend in 2020 to 53.6% in 2024, a rise of almost 25% year-on-year to \$17 billion in 2024.

The dynamic landscape of travel retail in India is undergoing a significant transformation. With Arrivals stores accounting for approximately 80% of travel retail income generation in the country, the product assortment is rapidly expanding beyond traditional categories such as spirits and tobacco.

Beauty is emerging as a strong contender for the leading category, while confectionery, wellness, toys and tech are steadily gaining retail prominence at major airports.

Indian travellers are increasingly drawn to luxury brands that offer personalisation, immersive experiences and contemporary cultural relevance. To meet these evolving consumer expectations, retailers are elevating their offerings, ensuring they stand out from other retail channels to deliver a differentiated shopping experience.

EVOLVING CONSUMER BEHAVIOUR

- Rising incomes and aspirations are reshaping travel and retail consumption patterns in India.
- Gen Z and Millennials are key influencers, prioritising experiential and ethical consumption.
- The affluent class is expected to double, driving demand for luxury and discretionary spending.

- Consumers are shifting from price-driven to brand-conscious and experience-oriented purchasing behaviours.
- Digital convenience and sustainability are becoming essential for engaging modern travellers.

India's Gen Z, already numbering 380 million – surpassing the entire population of the USA – is rapidly gaining influence.

By 2035, this demographic is projected to become the largest of its kind globally and is expected to drive 50% of consumer spending decisions in India.

This is a perfect expression of the new India. A new mindset among its middle-class consumers and a signal of their determination to not only enjoy new travel and consumption experiences but also to celebrate an exciting, more global citizenship.

Among India's new middle class, there's surging interest in brands, especially international icons. Just as those middle-class consumers are fuelling India's economic rise, so too will they play a lead role in driving the future success of India's aviation sector.

MORE ABOUT APTRA

APTRA (www.aptra.asia) represents the travel retail industry across more than 45 markets in Asia Pacific with advocacy and regulatory services, networking, knowledge and research.

The next APTRA India conference is scheduled for Q1 2026 and the APTRA North Asia Forum in Hong Kong will take place on December 3-5, 2025.

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DRIVING CHANGE

David Keene, CEO of Aurrigo International plc, explores what it will take for aviation to fully embrace autonomous technology and revolutionise the airport experience.



irports and airlines can easily predict how the aviation sector will look in the next 12 months. However, fast forward a decade, and the picture becomes far less certain.

Why? Because the pace of technological change is extraordinary. We are at the dawn of a new era in aviation automation – one that is already taking off. Companies across the industry, including Aurrigo, are pioneering solutions that will transform the way airports operate.

By 2035, they will be highly automated, sustainable, and passenger centric. Imagine a seamless passenger experience driven by AI: biometric security checks, automated check-ins, AI-powered security screening, and frictionless boarding.

These innovations will eliminate waiting times, enhance efficiency, and reduce travel stress, putting passengers in the perfect mood to indulge in airport shopping – a win-win for both travellers and airport retailers.

Sustainability will be at the heart of these advancements. Electrification, smart energy solutions, and Net Zero initiatives will dominate the conversation. Green hydrogen fuelling, solar-powered infrastructure, and carbon-neutral logistics will become standard features of modern airports. Data will continue to reign supreme. Al-powered control towers will act as the conductors of a complex ground traffic orchestra, optimising fleet co-ordination, managing weather disruptions, and reducing congestion to minimise delays and improve turnaround times.

Autonomous ground operations will be fully deployed, delivering significant environmental, operational, and passenger experience benefits. This is an area I'm particularly passionate about at Aurrigo, where we have firsthand experience of how driverless baggage vehicles can revolutionise airside logistics.

And baggage vehicles are just the beginning. Automated cargo haulers, pushback tugs, catering wagons, aircraft refuellers, and passenger shuttles will soon follow, transforming airport ground operations as we know them.

In fact, many airports are already working with us to deploy our Auto-DollyTug, a fully automated baggage-handling vehicle. By the end of 2025, we expect to see these vehicles in live operation.

And, as with all groundbreaking technology, once one airport proves the concept and reaps the benefits, others will quickly follow.

GETTING TO 2035: THE PATH TO TRANSFORMATION

So, what will it take to turn this vision into reality? Airports and airlines need answers now. But before we look at the solutions, let's examine some of the biggest challenges the industry faces.

To achieve fully connected airports, massive investment in digital infrastructure will be essential. Al-powered orchestration platforms and real-time data sharing will be key to optimising operations across all areas, from departure gates and baggage halls to the countless retail outlets that have transformed airport terminals into bustling shopping hubs.

While there are numerous promising technology trials underway, the real challenge lies in scaling them from pilot projects to full deployment. This requires a global commitment to collaboration, and it requires the sharing of knowledge, costs, and benefits to accelerate widespread adoption.

Regulatory frameworks must also evolve to keep pace with innovation. Across the UK, Singapore, the US, Asia, and the Middle East, governments and aviation bodies are actively exploring autonomous vehicle adoption. However, without harmonised global regulations, scaling AV technology across airports will remain a challenge.

The CAA, FAA, CAAS, IATA, and other regulatory bodies understand that they must act swiftly, because in today's world, technology moves faster than regulation. A unified global framework for AV deployment could create a much-needed collaborative approach to safety, efficiency, and sustainability.

THE ROLE OF GOVERNMENTS AND PUBLIC-PRIVATE PARTNERSHIPS

For this transition to be truly effective, governments must step up. In an ideal world, infrastructure upgrades would be incentivised, giving AVs access to the best 5G connectivity, digital mapping, and V2X (Vehicle-to-Everything) integration.

Achieving this requires strong public-private partnerships – a crucial element for success.

Greater regulatory standardisation would also help eliminate interoperability challenges across airports, while tax incentives, grants, and R&D funding would provide the financial backing needed to accelerate deployment.

In the UK, we've been fortunate to receive support from Innovate UK and the Centre for Connected and Autonomous Vehicles (CCAV). However, to scale our technology quickly, we needed additional capital, leading us to go public.

This move has allowed us to push forward with innovations such as Auto-DollyTug, Auto-Sim (our

digital twin software), and Auto-Connect (our cyberresilient fleet management platform).

IMMEDIATE OPPORTUNITIES AND CHALLENGES

Although 2025 will be a pivotal year for autonomous vehicle deployment in controlled environments, including airports, challenges remain.

Beyond regulatory hurdles, public perception and trust pose major barriers to widespread AV adoption.

Airports recognise the potential of autonomous vehicles, but key stakeholders still need reassurance that these technologies are safe, reliable, and ready for real-world deployment.

The only way to overcome scepticism is through transparent data sharing and large-scale trials. Demonstrating success will be critical to driving adoption. Encouragingly, we're already seeing this shift with advanced trials of our Auto-DollyTug at Singapore Changi (SIN), Cincinnati/Northern Kentucky (CVG) and Amsterdam Schiphol (AMS) airports.

CYBERSECURITY: THE NEXT FRONTIER

As AVs become more connected, they also become more vulnerable to cyber threats. Airports and OEMs must work together to build secure communication networks and implement robust cybersecurity measures.

Fortunately, these challenges are solvable. And like many industry experts, I'm confident that over the next 12 months, we'll see major progress.

There is a growing appetite for scaling autonomous ground support equipment and Al-powered fleet management systems. Simulation software like Auto-Sim is already offering a glimpse into the future, showcasing how AVs can seamlessly integrate into airside operations alongside human-operated vehicles. Optimising routes, reducing emissions, and enhancing safety are just some of the benefits.

Another key driver of adoption? Labour shortages. Since COVID-19, the aviation industry has struggled with staffing shortfalls, particularly among baggage handlers. Autonomous vehicles provide a scalable, efficient solution to this challenge.

THE FUTURE IS AUTONOMOUS

By aligning technological innovation with regulatory frameworks, investing in infrastructure, and ensuring safety and public trust, autonomous vehicles will become an integral part of air travel.

More than just a solution for today, they are a stepping stone to the connected, intelligent, and sustainable airports of the future. And that future is closer than we think.



THE PLACE FOR GOOD BUYS

Retail innovation will play a key role in enhancing the airport experience going forward, writes Chris Gwilliam, global senior vice president of business development at Airport Dimensions.



n ever-increasing number of the world's bigger airports are undergoing a fundamental shift as they transition from being a mere point of transit to a destination in their own right.

In this transformation, retail is no longer simply a revenue generator but a vital component in shaping the passenger's overall journey.

Airport Dimensions' recent research, 'Explore the Experience Era' – which surveyed 100 global senior airport decision makers on the challenges and opportunities facing them over the next 10 years – underscores this, revealing that a significant 40% of airport leaders consider retail central to enhancing passenger satisfaction.

This enhancement is intricately linked to providing greater convenience, a wider array of choices, and a more personalised experience.

Pravat Paikray, vice president of commercial development at Bengaluru's Kempegowda International Airport (BLR), is in no doubt about the importance of retail offerings at his gateway.

He says: "At BLR, travel retail is undergoing a significant transformation driven by changing buying behaviours, diverse passenger demographics, and varying dwell times.

"Airports are evolving into destinations beyond mere transit points. BLR is redefining retail to create an emotional connection with our passengers. "Our approach to retail and customer experience is akin to a theme park, drawing inspiration from Disney's methodology. The overall strategy, layout, and flow focus on experience design, guest-centricity, and storytelling, with a deep understanding of human psychology, spatial design, and emotional connection.

"This approach elevates our retail proposition beyond merely meeting functional passenger needs. It aims to satisfy the aspirational and emotional desires of travellers, fostering a genuine emotional connection with passengers and shifting the emphasis from impulse shopping to a more planned and purposeful experience by providing authentic and compelling reasons to engage and spend."

RETAIL SHAPING PASSENGER SATISFACTION

When considering the key drivers of passenger satisfaction, several factors come to the fore. Convenience and ease of access are paramount with 44% of respondents outlining how they foster improved traveler satisfaction. The 'Explore the Experience Era' research also highlights that 39% of airports believe passengers are increasingly seeking differentiated products and expanded choice within the airport environment.

BLR's Paikray notes: "Personalisation is equally critical as creating that emotional connection involves moving beyond spontaneous purchases to cultivating planned shopping experiences, offering travellers strong incentives to engage in planned shopping.

"At BLR Airport, for instance, we carefully curate a mix of iconic international brands and 'local heroes', creating exclusive store identities.

"Each outlet is designed as a unique experience centre, rather than a standard retail outlet, ensuring that every shopping encounter resonates with travellers on a personal level."

This approach reflects a broader shift toward elevating the brand environment, where thoughtfully designed retail spaces and a balanced brand mix help define airport's distinctive sense of place and deepen the emotional engagement with passengers.

THE DIGITAL TRANSFORMATION OF AIRPORT RETAIL

Technology stands as a fundamental enabler in this transformation, driving greater efficiency, enhancing convenience, and elevating the overall passenger experience.

E-commerce and mobile ordering have become essential, with a remarkable 78% of airports actively engaging in digital e-commerce and mobile ordering solutions, from exploration to integration, according to our research.

This surge reflects the pressing need to cater to the rising demand for seamless, engaging, and personalised journeys.

"The concept of the 'phygital' experience, which merges physical and digital retail, is also gaining prominence," says Paikray.

"For example, BLR Airport utilises a platform called BLR Pulse, which connects various touchpoints of the airport to deliver a unified phygital experience.

"This innovative solution includes services such as booking flight tickets, flight tracking, taxi booking, food and beverage pre-ordering with gate delivery, duty-free pre-booking, contactless lounge access, wayfinding within the airport and airport hotel bookings and much more - all accessible from a single platform."

Response to these same passenger needs, Airport Dimensions has created Connecta+, an innovative single marketplace solution that connects airport services – before and during their lounge visit – into a holistic journey.

Looking ahead, AI and immersive technologies will likely play an increasingly significant role in shaping the future of airport retail, with 30% of those surveyed increasing investment in sensors or AI driven analytics to monitorand manage passenger flows.

A further 35% have made investment to offer on-demand services such as food delivery shopping, or concierge services within the terminal.

BLR is already exploring these innovations through its in-house innovation lab, which has pioneered solutions like

facial recognition-based on-boarding, cashier-less stores, and queue-less lounge check ins.

CREATING THE AIRPORT OF THE FUTURE

Ultimately, the vision is to create the airport of the future, spaces that transcend their traditional function and become vibrant 'experience zones' that captivate travellers, encourage exploration, and foster a desire to spend time and engage with the offerings.

Talking about what's planned at BLR, Paikray says: "We are undergoing a significant transformation which will see the airport welcoming close to 100 million passengers by 2035. This entails adopting a guest-centric philosophy, where passengers are viewed as valued guests and airport staff as welcoming hosts.

"A key aspect of this transformation is the thoughtful integration of retail spaces with food and beverage outlets to create a more dynamic and engaging environment, while strategically managing passenger flow.

"This might mean, for example, an emphasis on creating integrated layouts where retail and food and beverage outlets are strategically positioned to optimise passenger traffic and enhance the overall shopping experience.

"BLR has implemented zoning strategies where a thoughtfully created F&B experiences act as magnets to slowdown traffic flow, thereby increasing exposure to nearby retail options.

"Retail offerings are also embedded into restaurants and cafes to optimise dwell time and stimulate impulse buying. Leveraging technology to streamline processes, minimise wait times, and provide convenient services such as pre-booking meals and duty-free shopping is also becoming essential."

What's clear from both changes in the Indian airport sector and the insights from global airport decision makers is that the reinvention of retail is not just a trend but a necessity in transforming airports into destinations that offer far more than a mere conduit for travel.

Initiatives like BLR's Project Polar Bear, which incentivises sustainable purchasing behaviour through a green loyalty points system, further demonstrates how retail innovation can align with larger goals such as sustainability and social responsibility.

By prioritising convenience, choice, personalisation, and the creation of compelling experiences, the full potential of retail can be unlocked to enrich the passenger journey and redefine the very essence of the airport experience.



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GREEN CHAMPION

We report on the latest sustainability success of New Zealand's Christchurch Airport.

hristchurch Airport (CHC) has received a Platinum award in ACI Asia-Pacific & Middle East's Green Airports Recognition 2025 programme, the accolade recognising the airport's leadership in building a clean energy future through its solar farm Kōwhai Park.

The airport was one of only four to receive Platinum recognition, its award celebrating the airport's role in establishing a major joint venture between Contact Energy and Lightsource bp to develop Kōwhai Park solar farm, currently under construction on the airport campus.

With 300,000 panels across 230 hectares, the project will generate enough renewable energy to power the equivalent of 36,000 homes.

Kōwhai Park is the cornerstone of the airport's wider ambition to create a clean energy hub that supports decarbonisation across the region and helps others meet their sustainability goals.

CHC's chief executive, Justin Watson, believes that ACI's recognition reflects the airport's long-term commitment to sustainability.

"Kōwhai Park shows what's possible when you combine vision with the right partners," he enthused. "Contact Energy and Lightsource bp bring world-class expertise, and this partnership is creating something we can all be proud of." Construction started in early June with the first piles to hold the solar panels being placed in the ground. Kōwhai Park's first stage is just the beginning of a long-term plan to support renewable energy projects such as green hydrogen and storage technologies.

Other sustainability achievements celebrated by CHC in the last year include the arrival of New Zealand's first fully electric fire truck and reaching Level 5 status in ACI's Airport Carbon Accreditation programme.

The gateway's sustainable transition leader, Claire Waghorn, enthuses: "We're building a future where safety and sustainability go hand-in-hand."

The airport's commitment to people, planet and place, for example, reaches far beyond energy generation. It includes real and measurable action across climate, biodiversity, circularity, water conservation and sustainability leadership.

In terms of resource recovery, for instance, the airport's award-winning sorting station processes waste generated in the domestic terminal, which has significantly reduced the waste sent to landfill.

The airport precinct is also home to one of the South Island's biggest EV charging hubs, and the airport's entire corporate fleet is electric.

The Green Recognition 2025 award, says CHC, is another milestone on its journey to keep pushing the boundaries of what's possible for sustainable aviation.



ON THE CASE!

The aviation industry is getting better at baggage handling with the number of mishandled bags continuing to fall globally, led by the Asia-Pacific region.

sia-Pacific's aviation sector stood out globally in 2024, achieving the world's lowest baggage mishandling rate at 3.1 bags per 1,000 passengers, a level it has consistently maintained over recent years.

According to the newly released SITA Baggage IT Insights 2025 report, this steady performance highlights the strength of regional investment in automation, tracking, and baggage management, even as system complexity and passenger numbers continue to soar.

The global picture also tells a story of progress, says SITA, as despite an 8.2% increase in worldwide traffic in 2024, the overall mishandling rate dropped to 6.3 bags per 1,000 passengers, down from 6.9 the previous year and 67% lower than in 2007.

The total number of mishandled bags increased to 36.2 million, compared to 36.1 million the previous year.

Of the 36.2 million mishandled bags, over 61% (22.2 million) were resolved and closed in SITA WorldTracer within 48 hours, underscoring the industry's ability to quickly reunite passengers with their luggage. Specifically, 16% were resolved within 12 hours, 38% within 24 hours, and 46% within 48 hours.

But while these results show clear improvement, baggage mishandling still cost the industry an estimated \$5 billion in 2024 and passengers are increasingly expecting more from the industry.

The costs, from courier returns and customer service to claims handling and lost productivity, highlight the urgency of continued investment in real-time, automated, and data-driven baggage systems.

"In air transport, transformation isn't a phase, it's the norm. The industry is constantly evolving, driven by technology, passenger expectations, and global change," says SITA CEO, David Lavorel.

"We've seen a radical shift with automation and the widespread use of real-time tracking. Passengers now expect their baggage experience to be as easy and transparent as using a rideshare or delivery app.

"It's no longer just about moving bags, it's about delivering a smooth, connected journey. Airlines are ready to tap into technology that improves the passenger experience while keeping costs down and being simple to roll out.

"Together with our partners, we're reimagining baggage handling to give passengers full visibility and control from departure to arrival, giving them peace of mind and making travel simpler and better."

TECH MATURITY, NOT EXPERIMENTATION

Airports and airlines are now handling greater baggage volumes with more precision. Real-time tracking, Alpowered analytics, and self-service solutions are no longer experimental, they are becoming standard, and they are clearly having an effect. This shows the real impact of investing in smart, data-driven baggage systems.



In 2024, 42% of passengers had access to real-time baggage updates, up from 38% the year before. Nearly half of travellers say mobile tracking would boost their confidence in checking in a bag, and 38% value the addition of digital ID tags.

According to SITA, airlines have responded by prioritising visibility across the baggage journey. Currently, 66% offer automated bag drop, and another 16% plan to by 2027. On the airport side, 65% plan to roll out biometric self-service bag drop by the same year.

A PARTNERSHIP BETWEEN TECH AND TRUST

SITA states that one of the standout innovations in 2024 was the integration of Apple's Share Item Location feature with SITA WorldTracer.

Passengers can share the location of their Apple AirTag with airlines, allowing quicker baggage recovery. British Airways, Lufthansa, Qantas, Cathay, and Virgin Atlantic are among the adopters.

This integration, it notes, also powers WorldTracer's Auto Reflight, which automatically reschedules bags on the original bag tag, identifies the cause of mishandling, and begins resolution with no human intervention required.

WHERE MOST BAGS GO MISSING AND HOW THE INDUSTRY IS RESPONDING

Delayed bags remain the most common issue, accounting for 74% of mishandled baggage, down from 80% in the previous year. Lost or stolen bags made up 8%, while damaged or pilfered bags increased to 18%, up from 15% in 2023.

Transfer mishandling was the biggest contributor at 41%, showing improvement from 46% the previous year. Tagging or ticketing errors, security issues,

and similar factors rose slightly to 17% (up 3 percentage points), while loading failures remained steady at 16%. Operational issues such as customs delays, weather, or capacity constraints increased to 10%, up from 8%.

"We're making progress, but baggage still causes stress," admits Nicole Hogg, director of baggage at SITA.

"Passengers want reassurance. The future of baggage is rapidly evolving with automation, computer vision, and mobile tools, we're making the experience much more reliable."

NEW INDUSTRY STANDARDS AIM TO FURTHER REDUCE BAGGAGE MISHANDLING

In 2025, the air transport industry approved the new Modern Baggage Messaging (MBM) standard. Designed to enhance data quality, MBM Version 2 is expected to reduce mishandling by another 5%.

These improvements build on IATA Resolution 753, which mandates baggage tracking at four key stages. The focus now is on using shared data to predict and prevent issues, not just report them.

BAGGAGE AS A SERVICE, NOT A CHALLENGE

Airports like Red Sea International in Saudi Arabia are already implementing next-generation baggage solutions, including off-airport check-in and real-time tracking, powered by SITA technology.

Hogg concludes: "Every bag matters. This isn't just about reducing errors. It's about creating trust in the journey and the technology is clearly making that possible."

The SITA Baggage IT Insights 2025 report reflects the views and data of 280 airlines and IATA passenger traffic.

APAS

WBP NEWS

The latest news and views from World Business Partners across Asia-Pacific and the Middle East.



VIETNAM AIRPORT AWARD FOR ADB SAFEGATE

Air Traffic Control Tower systems and equipment at Vietnam's eagerly awaited Long Thanh International Airport are to be supplied by ADB SAFEGATE.

The project includes delivering ASMGCS and related subsystems, including surveillance sensors, to ensure safety, interoperability and operational efficiency for the greenfield gateway, which is scheduled to commence operations in 2026.

Gonzalo Moreno Muñoz, vice president for tower business at ADB SAFEGATE, noted that the project marks a strategic milestone for the company's tower business in Asia.

DXB SECURITY CONTRACT FOR SMITHS DETECTION



Smiths Detection has been awarded a contract by Dubai Aviation Engineering Projects (DAEP) to deliver state-of-the-art checkpoint screening solutions across all terminals at Dubai International Airport (DXB). This initiative marks a significant step in advancing security operations and enhancing the passenger experience at one of the world's busiest airports.

WBP PROFILES



ARTELIA AIRPORTS

Location: Hong Kong Type of business: Planning & Construction W: www.arteliagroup.com/mobility/air/ Artelia Airports, formerly ADP Ingénierie, was founded by Groupe ADP to provide airport engineering services to third parties. The company employs approximately 100 experts primarily based in the Middle East and Asia Pacific, offering comprehensive support throughout airport infrastructure projects from consulting to project management.

AEROSIMPLE LLC

Location: United States Type of business: Information & **Communications Technology** W: www.aerosimple.com Aerosimple is at the forefront of digital transformation in airport management, providing innovative solutions to simplify and optimise operations globally. Backed by a team with over 150 years of combined aviation expertise, Aerosimple's platform addresses the unique needs of modern airports with cutting-edge web and mobile technologies. With a comprehensive suite of over 25 specialised modules, Aerosimple enhances efficiency, safety, and productivity while supporting exceptional passenger experiences.

DFS GROUP

Location: Hong Kong Type of Business: Retail & Commercial W: www.dfs.com

DFS is the only luxury retailer with a balanced airport and downtown retail portfolio across many markets. Our strengths lie in our brand partnerships, our groundbreaking store and product development, our superior product assortments, and our targeted marketing programmes. Our global reach ensures we truly understand the international traveller. Marketing offices in Seoul, Tokyo and across China provide us with unique opportunities to work with travel agencies to track travel patterns, and to monitor the travel and fashion interests of emerging luxury customers.

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