# **ASIA-PACIFIC & MIDDLE EAST AIRPORTS**

THE OFFICIAL MAGAZINE OF ACI ASIA-PACIFIC & MIDDLE EAST



# IN THE SPOTLIGHT: AIRPORTS INNOVATE

Issue 4, 2023

Airport profile: Abu Dhabi

Special report: Brisbane Airport Upgrade

••• Plus: Sustainability and Retail/F&B Innovation



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ACI Asia-Pacific & Middle East (ACI APAC & MID) serves as the voice of 132 airport members, operating 623 airports across 47 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.

### ACI Asia-Pacific & Middle East key facts:



132 AIRPORT MEMBERS



5 AFFILIATE AIRPORT MEMBERS



623
OPERATED AIRPORTS



9 ASSOCIATE MEMBERS



4/ COUNTRIES/ AREAS



102 BUSINESS PARTNERS

In 2022, Asia-Pacific and Middle East airports handled 2.09 billion passengers and 49 million tonnes of cargo.



49



2.09
BILLION PASSENGERS



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# **VIEW FROM THE TOP**

ACI Asia-Pacific & Middle East director general, Stefano Baronci, reflects on a successful year and looks forward to an even better 2024.

s we pull the curtains on 2023, it's a moment of excitement to reflect on our remarkable achievements and reinforced connections with members across our region. We navigated the year with great optimism, setting the stage for a promising future with a new vision and strategic roadmap.

Among the significant milestones was the rebranding of our association to ACI Asia-Pacific & Middle East, coupled with the successful inauguration of our Middle East office in Riyadh, Saudi Arabia. These moves underscore our dedication to broadening our outreach and engaging with airports in these regions, providing them access to industry insights and resources to enhance their competitiveness. Additionally, this new name will help create a stronger and more unified identity for our Association.

Our new identity is guided by a vision, 'Putting Asia-Pacific and Middle East Airports at the forefront of global aviation'. This vision is complemented by our new value proposition, "A journey of a thousand miles begins with thousands of airport smiles." This reaffirms our position that everything we do and every decision we make boils down to one fundamental goal: ensuring a happy passenger experience at airports.

The addition of resources, supported by Riyadh Airports Company, has reinforced our strategic connections within the local community, especially in the Middle East. The Middle East office will work closely with our headquarters in Hong Kong. This way, we will enhance our service through a balancing act between leveraging the value of an international network and tailoring our services to the local needs.

I am also proud to note that our Board now includes three remarkable women who bring a diverse range of skills and expertise to the table. They are Lorie Argus (CEO, Australia Pacific Airports), Carrie Hurihanganui (CEO, Auckland Airport) and Sarah Samuels (vice president, airline and airports, ICM Airport Technics), a subsidiary of Amadeus.

### **ADVOCACY AND ENGAGEMENT**

On the advocacy front, we are glad to state that our recommendations at the 58th Conference of Director Generals of Civil Aviation, Asia and Pacific Regions, in Dhaka, Bangladesh, have been acknowledged by the conference. We seized the opportunity to champion sustainable airport infrastructure, air connectivity, advanced air mobility, promotion of diversity, equity & inclusion, and the adoption of innovation in airport security. Achieving these goals will make our industry more efficient and sustainable.



Engagements like the Airport Day in the Pacific and dialogue in Australia with regulators and government officials showcase our commitment to serving members.

The Airport Day for Pacific Island airports was a great success, with members from nine countries taking advantage of the customised workshops on route development, security & facilitation and climate change. In Australia, we engaged in discussions with regulators and Members of Parliament, which included Catherine King, Minister of Infrastructure Transport, Regional Development and Local Government, and Marisa Purvis-Smith, Australia's Deputy Secretary, Department of Infrastructure, Transport, Regional Development, Communications and the Arts.

The engagement in Canberra provided us with the opportunity to discuss the Australian Government's Aviation Green Paper and two specific topics – the decarbonisation of the country's air transport sector and international connectivity.

With respect to the latter, liberalising the air transport sector in Australia holds tremendous potential to bring enormous benefits to the nation, enabling superior air connectivity, traffic growth, economic development, employment creation conducive to more affordable airfares. We hope to see a positive shift in the policy that will pave the way for a brighter future for the industry in Australia.

Our first-ever Airports Innovate, an event centered around the theme of innovation, was a success. The event was a testament to the airports industry's strong commitment to continuously innovate. The discussions, spanning over two days, underlined the fact that innovation is the key to progress, and to navigate the fast-changing landscape of our industry.

### **MEMBERSHIP**

At the time of writing this article, ACI Asia-Pacific & MID, has 132 airports members, operating 623 airports across 47 countries/territories. Additionally, we have five affiliate airport members, nine associate members and 102 World Business Partners.

### **LOOKING FORWARD**

We expect 2024 to be a milestone year for global passenger traffic recovery which is likely to reach 9.4 billion passengers, surpassing pre-pandemic 2019, when the world's airports welcomed 9.2 billion passengers.

Asia-Pacific is expected to reach approximately 3.4 billion passengers in 2024, or 99.5% of the 2019 level, while the Middle East region is projected to serve 429 million, or 105.4% of the 2019 level. This forecast may be impacted by the economic circumstances of neighbouring markets.

As we step into 2024, armed with a new strategic plan, our focus remains sharply focused on enhancing our services to members. Lastly, I would like to wish all our members a wonderful holiday season ahead.

# **INDUSTRY NEWS**

We provide a snapshot of some of the latest news stories from across Asia-Pacific and the Middle East in the final quarter of 2023.



# **NEW TERMINAL FOR NAKHON SI THAMMARAT INTERNATIONAL AIRPORT**

Nakhon Si Thammarat International Airport in southern Thailand is set to open its new \$60 million international terminal in December.

The new eight-gate facility covers 30,000sqm and will boast state-of-the-art facilities that will raise the airport's capacity to four million passengers per annum.

Three airlines – Nok Air, Thai AirAsia and Thai Lion Air – currently fly between Nakhon Si Thammarat and

Bangkok, but all that will change in 2024 as the new terminal is expected to prove the catalyst for the launch of direct, scheduled flights to Singapore, China, Chinese Taipei and Malaysia.

The airport is located in Nakhon Si Thammarat Province, which is home to 200km of mountain ranges and 200km of beaches, including nearby Sichon, which was recently named as one of Thailand's Top 10 beaches by Lonely Planet.

# MALAYSIA AIRPORTS SELLS STAKE IN HYDERABAD AIRPORT



Malaysia Airports has sold its 11% stake in Hyderabad's Rajiv Gandhi International Airport in India for \$100 million.

It cites strategic reasons for the decision to divest its entire stakeholding in operator, GMR Hyderabad International Airport Limited (GHIAL), to the GMR Group, from which it acquired the shares for \$10 million in 2009.

Malaysia Airport, which notes that it had maintained a passive minority interest in GHIAL over the past 14 years, said: "This divestment is part of the MAHB Group's efforts to streamline its overseas investment portfolio and unlock value from its non-core assets, in line with the Group's international business growth strategy.

"The proceeds from the disposal will be redirected towards general corporate purposes and capital expenditures (CAPEX) in assets where the MAHB Group holds a more direct and controlling stake.

"This strategic reinvestment approach is a key element of the Group's growth strategy, allowing it to optimise its investment portfolio and strengthen its control over core assets, ultimately leading to greater long-term value for stakeholders."

The move means that Istanbul–Sabiha Gökçen International Airport in Turkey is now the group's sole international asset.



# HAMMER TIME: BRISBANE AIRPORT TO HOLD ANNUAL LOST PROPERTY AUCTION

What does a Dyson vacuum cleaner, a BMX bike, surfboards, a drone and a mandolin have in common? The answer is that they were all left behind by passengers at Brisbane Airport this year and will shortly be auctioned off for charity.

A total of 673 lots are up for grabs at the airport's annual Lost Property Auction and, as you would expect, the forgotten goodies also include dozens of watches, mobile phones, laptops, ipads and jewellery.

The airport notes that while it makes every effort to reunite the owners with their belongings, unfortunately around two-thirds usually remain unclaimed, and rather than send them to landfill it eventually auctions them off with the proceeds benefitting young Queenslanders through the Courier-Mail Children's Fund. Last year's event raised A\$66,000 for good causes.

"Some of the items left behind in the terminal are simply because passengers have exceeded their baggage limit and choose to leave them," said the airport's head of public affairs, Stephen Beckett.

"We're hoping to raise as much as we can because the proceeds are going to support Queensland Children's charities to help kids who are vulnerable and suffering disadvantage."

### **GOOGLE AUGMENTED REALITY FEATURE AT SYDNEY AIRPORT**

In a first for an Australian airport, Google has launched Indoor Live View at Sydney Airport, just in time for the Christmas travel rush.

The new augmented reality (AR) feature on Google Maps provides arrows, directions, and distance markers superimposed on the camera view, to point people in the right direction across the terminals.

According to the airport, Google Indoor Live View will help passengers locate gates, baggage claim, check-in counters, terminal transfer points, retail outlets, dining options, bathrooms, ATMs, and more.

Visitors can also select the 'Wheelchair accessible' preference to find wheelchair, pram and suitcase friendly paths. They can also turn on audio navigation prompts, in addition to visual cues. Sydney Airport's senior manager for business systems, Belinda Scanlon, said: "This is a win for our passengers, who will be the first in Australia to benefit from this incredible new AR technology from Google.



"Whether travellers are looking for their gate, a bathroom or even a place to grab a bite to eat, they now have the directions they need at their fingertips. This is an especially great tool for travellers facing language barriers and accessibility needs, as it will help them navigate the airport more independently."



# KIX UNVEILS REVAMPED INTERNATIONAL TERMINAL

Kansai International Airport (KIX) has officially re-opened the newly renovated international departure area of Terminal 1.

Operator, Kansai Airports, says the major renovation is designed to enhance the passenger experience by providing them with bigger and better facilities.

The revamp has also allowed Kansai Airports to raise the Japanese gateway's international passenger handling capacity from 23 to 40 million passengers per annum.

According to the airport, the terminal now has a streamlined immigration zone, a walkthrough duty-free shop, central plaza and four 'mood areas' with 27 stores.

The stores include new high-end outlets from renowned luxurious brands such as Louis Vuitton, Dior, Chanel, Hermes and Gucci, and nine new catering options providing a mix of local and international offerings.

"This new phase puts KIX at the top of main Asian airports for its passenger experience with unmatched quality of its commercial offer," notes KIX.

Nicolas Notebaert, CEO of VINCI Concessions and president of VINCI Airports, said: "This new international departure demonstrates the know-how of VINCI Airports 'teams and the added value we bring in the countries where we operate.

"We develop and design innovative projects to position our airports at the forefront of passengers' expectations and encourage positive mobility."

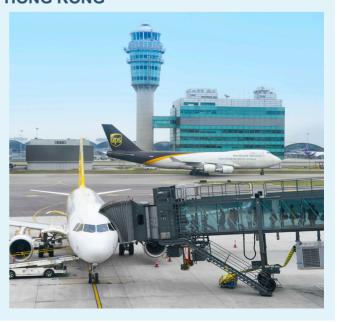
# **UPS TO INVEST IN NEW HUB FACILITY AT HONG KONG**

United Parcel Service (UPS) has reached an agreement with Airport Authority Hong Kong (AAHK) to develop a new hub facility at Hong Kong International Airport.

Expected to complete in 2028, the new express cargo facility will be capable of handling close to one million tonnes of freight per annum and will be built on a land parcel of two hectares with airside access.

Airport CEO, Fred Lam, said: "We have long embraced the growing importance of e-commerce in global trade and have been taking forward several strategic new facilities in order to capture the new opportunities and further sharpen our competitiveness in air cargo.

"UPS's new facility is another important addition to our portfolio of cargo facilities which will help the airport strengthen its position as a leading global air cargo and e-commerce fulfilment hub."





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# REGIONAL UPDATE

ACI Asia-Pacific & Middle East's manager for communications and brand marketing, Yuman Lau, rounds-up the latest news and developments from an exciting final guarter of 2023.



### WARM WELCOME TO NEW BOARD MEMBERS

ACI Asia-Pacific & Middle East (ACI APAC & MID) has appointed two new members to its Board. The two additions are Carrie Hurihanganui, CEO of Auckland International Airport Limited, New Zealand, and Dr Kijmanawat Kerati, president of the Airports of Thailand Plc.

The term of the two new directors will commence from January 1, 2024, and will end on December 31, 2026, unless re-elected.

Hurihanganui's appointment marks a significant milestone for ACI APAC & MID, contributing to a more inclusive and balanced representation of genders within the board.

ACI APAC & MID now has three women on the board. She joins Lorie Argus, CEO of Australia Pacific Airports, and Sarah Samuel, senior VP-ICM Technologies (an Amadeus company).

# SUSTAINABILITY REMAINS A TOP PRIORITY FOR ACI ASIA-PACIFIC & MID



ACI Asia-Pacific & Middle East (ACI APAC & MID) reaffirmed its commitment to the sustainable growth and development of the airport industry at the ICAO 58th Conference of Director Generals of Civil Aviation, Asia and Pacific Region, in Dhaka, Bangladesh.

ACI APAC & MID called for the promotion of sustainable airport infrastructure; diversity, equity and inclusion of the airport workforce, an outcome-based regulatory regime to

facilitate the adoption of innovative technologies in aviation security, integration of advanced air mobility into the air transport system, and restoration as well as the development of air connectivity.

Stefano Baronci, director general of ACI Asia-Pacific & Middle East, said: "ACI APAC & MID remains committed to promoting the aviation industry's sustainability, gender equality, and technological advancements, and calls for continued collaboration with industry stakeholders and regulators to achieve these goals.

"These will be the key pillars for the development of our industry as we emerge from the shadows of COVID-19 pandemic. Strengthening these pillars will go a long way in making our industry more efficient and sustainable besides augmenting the contributions to the global economy."

The 58th Conference of Director Generals of Civil Aviation for Asia and Pacific Region in Dhaka, Bangladesh, provided a platform for discussions, co-operation, and key initiatives aimed at advancing aviation standards, sustainability and gender equality in the Asia Pacific region.

# KEY INSIGHTS ON AIRPORT BUSINESS MODELS



ACI APAC & MID announced the findings of market research about airport concession business models and non-aeronautical revenues at The Trinity Forum 2023 in Hong Kong, organised together with The Moodie Davitt Report and ACI World.

The survey also highlighted the significant adoption of digital and contactless solutions by airports in response to the new operating environment post-COVID. Indeed, it showcased a rapid move towards technological integration for enhanced safety and efficiency.

Furthermore, it identified an overwhelming emphasis on the role of robust data analytics, with sectors focusing on leveraging demographic information, travel patterns, and purchase history for optimised, customer-centric strategies.

# AIRPORT SLOT ALLOCATION AND CAPACITY MANAGEMENT

The ACI World Expert Group on Slots (EGS) convened in Dubai, United Arab Emirates, in November 2023. This gathering of industry leaders was dedicated to exploring a multitude of crucial topics related to slot allocation.

Among the top priorities was determining the most effective approach for incorporating the latest additions to the Worldwide Airport Slot Guidelines (WASG), ensuring that global aviation operates smoothly and efficiently.



# ACI ASIA-PACIFIC & MIDDLE EAST REGIONAL BOARD

### **PRESIDENT**

Emmanuel Menanteau\* (Cambodia Airports, Cambodia)

# FIRST VICE PRESIDENT SGK Kishore\*

SGK Kishore\*
(GMR Hyderabad International Airport Limited, India)

### SECOND VICE PRESIDENT

H.E. Ali Salim Al Midfa (Sharjah Airport Authority, UAE)

### SECRETARY TREASURER

Mohamed Yousif Al-Binfalah\* (Bahrain Airport Company SPC. Bahrain)

# IMMEDIATE PAST PRESIDENT

Seow Hiang Lee\* (Changi Airport Group Pte Ltd, Singapore)

### REGIONAL BOARD DIRECTORS

Musad Aldaood (Riyadh Airports Company, Saudi Arabia)

Lorie Argus (Australia Pacific Airports Corporation, Australia)

Muhammad Awaluddin (PT Angakasa Pura II, Indonesia)

Nicolas Claude (Airport International Group, Jordan)

Gert-Jan de Graaff (Brisbane Airport Corporation PTY Limited, Australia)

Videh Kumar Jaipuriar (Delhi International Airport Ltd, India)

Carrie Hurihanganui (Auckland International Airport Limited, New Zealand)

Cheok Kuan Kan (Macau International Airport Co Ltd, Macau SAR)

# Dr Kijmanawat Kerati (Airports of Thailand Plc, Thailand)

Hag Jae Lee (Incheon International Airport Corporation, Republic of Korea)

Fred Lam\*\* (Airport Authority Hong Kong, Hong Kong SAR)

Duc Hung Nguyen (Airports Corporation of Vietnam, Vietnam)

Yun Qin (Shanghai Airport Authority, China)

Akihiko Tamura\* (Narita International Airport Corporation, Japan)

Chang Yi Wang (Capital Airports Holding Company, China)

Yoshiyuki Yamaya (Kansai Airports, Japan)

Hyung Jung Yoon (Korea Airports Corporation, Korea)

# WBP REPRESENTATIVE

Sarah Samuel (ICM Airport Technics, Australia)

# SPECIAL ADVISORS

Suleiman Al Bassam (General Authority of Civil Aviation, Saudi Arabia)

Sheikh Aimen bin Ahmad Al Hosni\* (Oman Airports, Oman)

Tan Sri Bashir Ahmad Abdul Majid (GMR Airports Limited, India)

<sup>\*</sup> WGB member

<sup>\*\*</sup>Regional Advisor on WGB



# **TAOYUAN AIRPORT FORUM 2023**

ACI APAC & MID director general, Stefano Baronci, had the privilege to speak about the dynamic advancements in technology, the strides made in green energy development, and the industry's commitment to sustainability a the recent Taoyuan Airport Forum 2023.

He reiterated our position that everything we do effectively boils down to one fundamental goal: that is the success of an airport cannot be measured only by the efficiency of its operations, but by the smiles it creates amongst its passengers.



# AAPA'S 67TH ASSEMBLY OF PRESIDENTS

ACI Asia-Pacific & Middle East's director general had the honour of participating in a discussion alongside fellow industry leaders at the AAPA 67th Assembly of Presidents in Singapore, focusing on 'Restoring Air Connectivity in the Asia Pacific: Easing Hurdles to Aviation Recovery.'



# ACI APAC & MID ENGAGES WITH ASEAN ON AIRPORT TECHNOLOGY AND SUSTAINABILITY

ACI Asia-Pacific & Middle East presented the advancements in airport technology and commitment to sustainability of the airport industry at the 48th ASEAN Air Transport Working Group meeting (ATWG48) in Singapore in early October 2023.

# **EU-SEA CCCA CORSIA PROJECT**

ACI APAC & MID reiterated its position regarding the efforts of airports in decarbonisation and the importance of Sustainable Aviation Fuel at airports at the EU-SEA CCCA CORSIA Project 'Workshop on Development of SAF Policies and Regulations'.





# SECURITY COMMITTEE ADVOCATES FOR ADOPTION OF TECHNOLOGY TO ENHANCE AIRPORT SECURITY

Adoption of technology that will enhance airport security remained top of the agenda at the 31st ACI Asia-Pacific & Middle East Regional Aviation Security Committee (RASC) convened in Bangkok in early November 2023.

Over the two-day meeting, the committee members discussed a host of topics that have been top priorities

for airports across the region in recent years. These include the use of artificial intelligence in screening, the adoption of automated technologies at security checkpoints, the challenge of incorporating ever evolving security considerations in airport master planning and the development of new countermeasures for emerging security threats.



# ACI APAC & MID ADVOCATES FOR DEVELOPMENT OF ADVANCED AIR MOBILITY

ACI Asia-Pacific & Middle East continues to proactively advocate for the development of Advanced Air Mobility (AAM) across the region.

At the K-UAM Confex Conference, which took place in Incheon, Republic of Korea recently, our economics manager, Philip Kwok, made an insightful presentation outlining the advantages of AAM, and how the new mode of transportation could enhance efficiency, promote smarter use of urban infrastructure, facilitate sustainable travel.

# FIRST ACI APEX IN SECURITY REVIEW IN VIETNAM

ACI World's Airport Excellence Program (APEX) in Security review was successfully conducted at Tan Son Nhat International Airport (SGN) between November 27 and December 1, hosted by Airports Corporation of Vietnam (ACV). It was the first ever APEX review conducted in the country.

# AIRPORT EXCELLENCE PROGRAMME IN ENVIRONMENT AT BAHRAIN INTERNATIONAL AIRPORT

Together with the environmental sustainability experts from Istanbul Airport, Queen Alia Airport, Zurich Airport and ACI conducted an APEX in Environment review at Bahrain Airport to assess and manage the environmental impacts associated with the airport.

The goal is to share industry best practices with the airport and ensure that the airport complies with relevant environmental regulations and standards.



# AIRPORT DAY FOR PACIFIC ISLAND AIRPORTS

We are proud to announce that our first Airport Day for Pacific Island airports in Rarotonga, the Cook Islands, was a success. We covered topics ranging from environmental sustainability for airports to the critical role of air connectivity in driving economic growth to security related challenges.

The event was officially inaugurated by the Prime Minister of Cook Islands, Mark Brown. His pride in our decision to host this event in Cook Islands was truly heart-warming.



# **NEW FORCES IN ACI ASIA-PACIFIC & MIDDLE EAST**

Member airports have reinforced the ACI APAC & MID office by providing secondments to support our advocacy efforts and programmes across the region.

Ryusuke Uemura from Tokyo's Narita International Airport, and Gidae Shin, from Incheon International Airport

Corporation, operator of Incheon International Airport, have joined the ACI Asia-Pacific & Middle East team as special project officers, while Abdulaziz Alshammar from Riyadh Airports joins as communications manager and company colleague, Adeeb Mobaraki, joins as an environment manager.



# CHRISTCHURCH INTERNATIONAL AIRPORT – AIRPORT CARBON ACCREDITATION PIONEER

Christchurch Airport and nine European airports are the first in the world to achieve a new level in Airport Carbon Accreditation with Christchurch being the only airport in the Southern Hemisphere.

ACI recently unveiled the new accreditation level, known as Level 5, at the 28th United Nations Climate Change Conference (COP28).

At a dedicated side-event during COP28, ten world leading airports were presented with their Level 5 certification. The other nine airports are Amsterdam Airport Schiphol, Eindhoven and Rotterdam-The Hague airports in the Netherlands; Beja, Madeira and Ponta Delgada airports in Portugal; Göteborg Landvetter and Malmö airports in Sweden and Toulon-Hyères airport in France.

Talking about the new top level in the programme, Stefano Baronci, director general of ACI Asia-Pacific & Middle East, said: "The Airport Carbon Accreditation is the only tool empowering airports in their efforts to reduce their carbon footprint. Several airports in our region have been consistently improving their accreditation levels, marking great strides in carbon management strategies. Level 5 calls for a greater push towards achieving net zero emissions objectives. This also sets a new standard, motivating airports to adopt extensive measures in their pursuit of achieving net zero emissions.

"Congratulations to Christchurch International Airport, a pioneer of airport sustainability, for being among the first airports in the world to reach level 5 Airport Carbon Accreditation programme.

"This achievement not only marks a significant milestone for Christchurch Airport but also sets a benchmark for the entire airport industry and beyond to do more towards the Net Zero 2050 goal. To support our airport members, ACI APAC & MID will also play its part by assisting airports to develop roadmaps to achieve their net-zero goals".

# 558 accredited airports



Welcoming

3.6 billion

passengers

per year

in **89 countries**across
the world

or 54.9% of global air passenger traffic



Visit our interactive results website www.airportcarbonaccreditation.org





# READY TO WRITE THE NEXT CHAPTER

The opening of Abu Dhabi International Airport's eagerly awaited Terminal A is expected to signal the dawn of an exciting new era for the UAE gateway, writes Joe Bates.

ithout doubt the opening of the new state-ofthe-art Terminal A at Abu Dhabi International Airport (AUH) is a game changer for the UAE gateway, as it now has a world-class passenger facility capable of matching its ambitions, meeting long-term demand, and taking the passenger experience to the next level.

In facts and figures, covering a total floor area of 742,000sqm, Terminal A is among the largest airport terminals in the world and will significantly increase Abu Dhabi International Airport's passenger and cargo capacity.

Terminal A is, for example, capable of accommodating up to 45 million passengers per year – more than double AUH's previous capacity.

It can process some 11,000 travellers per hour, handle 79 flights simultaneously, ensure that AUH maintains its enviable status of being able to accommodate 45 minute transfer times for connecting passengers, and as good as guarantee average walk times of just 12 minutes from kerb to gate.

Operator, Abu Dhabi Airports, certainly doesn't hold back in highlighting the importance of its new addition, saying that Terminal A will "further strengthen Abu Dhabi's global standing as an aviation hub" and allow the airlines to boost their presence in Abu Dhabi in response to growing demand.

It is also quick to point out that the new terminal will boast some of the most advanced technology on the planet – including biometric systems designed to streamline the screening and boarding process – and more than 35,000 square metres of retail and F&B space for passengers to shop, dine and enjoy.

Indeed, Abu Dhabi Airports is confident that Terminal A will transform the end-to-end travel experience for all passengers passing through the airport, including the rising number of travellers transferring to other destination's primarily with home-based carrier, Etihad Airways.

Talking on the day Terminal A opened, Abu Dhabi Airports' managing director and interim CEO, Elena Sorlini, said: "This is a momentous occasion for Abu Dhabi Airports and the emirate.



"The official opening of Terminal A ushers a new era for air travel in Abu Dhabi. I'm grateful for the hard work from my colleagues, and partners across the aviation sector, that has helped us reach this historical milestone.

"We look forward to sharing the state-of-the-art facilities available at Terminal A with the world and to welcoming passengers to Abu Dhabi International Airport's new home."

### FIRST FLIGHT FROM NEW TERMINAL

As you would expect, Etihad had the honour of operating the first commercial service from Terminal A, courtesy of flight EY224 to New Delhi on October 31. The flight, operated by A350-1000 with 359 passengers, was marked by a ribbon-cutting ceremony at Gate C27.

Speaking at the ceremony, Etihad CEO, Antonoaldo Neves, enthused: "This is a pivotal and exciting moment in Etihad's history. As we begin to celebrate our 20th anniversary in November, we are ready for the next growth chapter in our new home.

"Our congratulations go to the Abu Dhabi leadership for their vision in creating what is one of the world's most spectacular airports. The terminal is a stunning piece of architecture that echoes the local landscape and warmly welcomes our guests and elevates their travel experience.

"As we begin our transition to our new home, we look forward to welcoming even more passengers as we continue to grow and expand our fleet and network."

AUH's 28 airlines began the three-phased migration to Terminal A on November 1, led by Wizz Air Abu Dhabi and 15 other international airlines (Aeroflot, airblue, Air India, Air India Express, Badr Airlines, Biman, Cham Wings, IndiGo, Pakistan International Airlines, Pegasus, Pobeda, Smartwings, SunExpress, Syrian Air and Vistara).

Phase 2 of the transiton to the new showpiece terminal took place on November 9 when Etihad launched 16 flights from Terminal A, before the switch was completed on November 14 when Abu Dhabi's national flag carrier moved its remaining services to the complex along with all operations by Air Arabia, Air France, Egyptair, Gulf Air, Kam Air, Middle East Airlines, Qatar Airways, Royal Jordanian, Saudia, SriLankan Airlines and Turkish Airlines.

Between them the airlines serve a total of 117 destinations across the globe from Abu Dhabi.

### **COMMERCIAL FACILITIES**

Abu Dhabi Airports believes that Terminal A is a shopper's paradise with 163 retail and F&B outlets over a vast area that offer passengers a wide variety of shopping and dining opportunities to explore.

It states: "From Gucci, Yves Saint Laurent and Ferragamo, to the world's first Muji airport store, Terminal A is a shopping destination designed to amplify a passenger's travel experience.

"When it comes to food and beverage, there is something to accommodate all palates. Jones The Grocer, Taste of India, Starbucks and the Camden Food Co are just a few of the exciting brands calling Terminal A their new home. Also, catering to little palates, young travellers can embark on a culinary adventure amidst their favourite McDonalds or TGI Fridays restaurant as they enjoy its playful décor.

"Additionally, Todd English opens his first airport restaurant providing diners with a wide selection of cuisines from



around the world. For relaxation and rejuvenating prior to flying, there are two health and beauty spas along with a high quality 138-bedroom hotel plus a modern open-air lounge offering renowned Arabic hospitality."

### **TECHNOLOGY LEADER**

Abu Dhabi Airports says that Terminal A will prioritise the passenger experience, facilitating a streamlined service from kerb-to-gate and, as part of this ambition, states that it is the first in the world to include all nine biometric airport touchpoints (see diagram).

In the first phase, it says that this will see biometric solutions installed in key areas, such as self-service bag drops, immigration eGates and boarding gates. When fully operational, it will use facial recognition technology to screen passengers and minimise wait times.

Advanced technology is also said to be have been incorporated into one of the world's most advanced baggage handling systems – it is capable of processing up to 19,200 bags per hour – as well as self-service kiosks and streamlined security checkpoints.

Sorlini said: "Terminal A underscores our dedication to providing our international passengers and partners with a premium airport experience.

"The terminal exemplifies our commitment to excellence and offering exceptional services that meet the evolving priorities of today's travellers.

"Through leveraging the latest technologies, Abu Dhabi's reimagined airport experience will offer a seamless passenger journey, fostering connectivity, interactions, business, trade and tourism, all of which are essential elements in strengthening Abu Dhabi's position on the world stage."

# THE X-FACTOR

When a building wins a design award before it has even been completed, let alone opened, it is usually impressive, and the Kohn Pederson Fox (KPF) designed Terminal A is no exception.

Its four themed piers are said to have been inspired by Abu Dhabi's desert, sea, city and oasis natural landscapes.

According to the airport operator, the distinctive X-shaped design of the terminal was chosen as it will help maximise operational efficiency and improve passenger flows.

The airport notes that Terminal A's design "blends modern, lightweight aesthetics with functional brilliance", explaining that the building's glass exterior maximises natural light while creating "a monumental civic space" inside the terminal.

The size of the monumental space has actually allowed it to include one of the largest indoor public art features in the Middle East, the 22 metre tall and 17 metre wide Sana Al Nour sculpture.

### SUSTAINABLE DEVELOPMENT

In line with the UAE's sustainability aspirations and targets, Terminal A features energy-efficient lighting, advanced Heating, Ventilation and Air Conditioning (HVAC) systems, and has incorporated sustainable materials in its construction.

It is expected to drastically reduce AUH's annual water consumption, with some experts predicting that the figure will drop by 45%.

And as a major step towards realising Abu Dhabi Airports' commitment to limiting its operational carbon footprint, a fully integrated solar photovoltaic system has been installed on the roof of Terminal A's car park, which currently powers a three-megawatt (MW) plant that is predicted to save nearly 5,300 tons of CO2 annually.

His Excellency, Sheikh Mohammed bin Hamad bin Tahnoon Al Nahyan, chairman of Abu Dhabi Airports, said: "As Abu Dhabi's new gateway to the world, Terminal A is an embodiment of Abu Dhabi Airports' commitment to support the emirate's sustainable economic development.

"The opening of the facility, which is on par with the largest and grandest on our planet, turns over a new page in Abu



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Dhabi's 55-year aviation history. A beacon of modernity and sophistication, it will be a pivotal driver for our emirate's growth by spurring tourism and trade."

### TRAFFIC TRENDS

Newly released traffic figures for Q3 2023 show that a total of 5.9 million passengers passed through Abu Dhabi International Airport between July and September – 29% more than in the corresponding quarter a year ago.

During the period, AUH also experienced a near 22% increase in aircraft movements and handled 144,000 tonnes of cargo, roughly the same as in Q3 2022.

Abu Dhabi's connectivity also expanded significantly, with 119 destinations served from AUH by 24 airlines. The busiest destinations served in Q3 2023 included London (238,196 passengers), Mumbai (228,189 passengers), Kochi (191,883 passengers), Cairo (172,570 passengers) and Doha (168,417 passengers).

"We are happy to report passenger figures that continue to show double-digit growth for both passengers and movements," enthused Sorlini.

"We are attracting major international airlines to Abu Dhabi, with Air France and SunExpress scheduled to start this IATA Winter season, and we further welcome British Airways' recent announcement to return to Abu Dhabi in April 2024. Terminal A brings a host of new capabilities and facilities, and will be key to airline and, consequently, passenger growth."

# **ABU DHABI'S AIRPORT SYSTEM**

In addition to AUH, Abu Dhabi Airports is responsible for operating Al Ain, Al Bateen Executive, Delma and Sir Bani Yas airports in the emirate.

A total of 15.9 million passengers used Abu Dhabi's five airports in 2022, the bulk of the total, of course,

using Abu Dhabi International Airport as the emirates' other gateways primarily serve local or specialised markets.

Al Ain International Airport, for example, serves the northwest border city of Al Ain and its growing industrial activities, which now include being home to the UAE's first aerospace cluster at Nibras Al Ain Aerospace Park.

Al Bateen Executive Airport was the first dedicated business aviation and private jet airport to be established in the Middle East and North Africa (MENA) region, while Delma and Sir Bani Yas airports play a vital role in the development of their respective communities, the latter primarily catering to tourists visiting the UAE's largest "natural island".

### WHAT NEXT FOR ABU DHABI?

Almost certainly traffic growth and more new routes as AUH continues its recovery from the global pandemic, however, like many other airports in today's unpredictable world, it is reluctant to make any detailed forecasts.

However, one thing we can say for sure is that Abu Dhabi International Airport will be renamed Zayed International Airport on February 9, 2024, coinciding with an official opening ceremony for Terminal A.

The name change was recently annouced by the Abu Dhabi government in honour of the late Sheikh Zayed bin Sultan Al Nahyan, who was the founding president of the UAE.

The future is bright at Abu Dhabi International Airport, and now it finally has the terminal that can help catapult it to the next level in terms of its facilities and what it can achieve.

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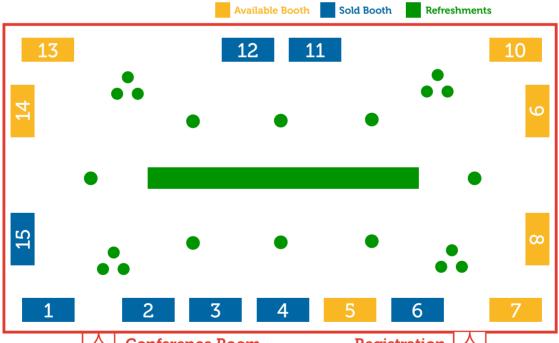












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1













15

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# HIGHLIGHTING INNOVATION

The inaugural Airports Innovate conference in Oman proved to be an event to remember for the 500 delegates in attendance, writes Joe Bates.

s you would expect from an event dedicated to 'innovation', the inaugural Airports Innovate conference in Muscat, Oman, addressed a number of innovative ways airports, and the aviation industry, are tackling the operational, customer service and sustainability challenges of today.

Nearly 500 delegates from 40 countries across the globe attended the ACI Asia-Pacific & Middle East, ACI EUROPE and ACI World organised event, making it one of the association's biggest since the end of the COVID pandemic.

The theme of the event was bold, 'Dynamic Think-Tank – Reveal the Future', and it covered some of the latest innovations that are set to transform the global aviation industry, ranging from artificial intelligence, biometrics, big data and digitalisation to electric vertical take-off and landing (eVTOL) aircraft.

But it was not all about technology, with sessions on innovative airport design, accessibility, risk management, brand strategies, human resources and passenger trends. Hosted by Oman Airports, it was fitting that the country's Minister of Transport, Communications and IT, His Excellency, Saeed Bin Al Maawali, and Sheikh Aimen Bin Ahmed Al Hosni, CEO of Oman Airports and chair of ACI World, gave the opening addresses.

Al Maawali, who noted that the event coincided with Oman's 53rd National Day under the leadership of His Majesty Sultan Haitham bin Tarik, emphasised the importance of aviation to Oman and promised that the Sultanate would continue to invest in its airports and encourage innovation in the aviation sector to ensure future growth.

His words about the importance of aviation to Oman, particularly in terms of the economy and global connectivity, were echoed by Al Hosni, who revealed that Oman Airports' commitment to innovation and collaboration had recently led it to opening its own Innovation Lab to nurture best ideas generated from a hackathon (Aerohack).

He said that Aerohack attracted over 700 of "the finest minds in aviation" and led to the emergence of more than





300 potential solutions for customer experience, airport operations, automation and sustainability issues. The Aerohack solutions currently being trialled at Oman Airports' Innovation Lab include the use of drone technology for cleaning tyre rubber from the runways and a new Travel App.

Talking about aviation's recovery from COVID, AI Hosni said that 8.6 billion passengers were expected to pass through the world's airports in 2023, which is just 6% below the pre-pandemic levels achieved in 2019. He told delegates that 2024 would be "a milestone year for aviation" with the full recovery of global traffic leading to some 9.4 billion passengers passing through the world's airports – 200 million more than were handled in 2019.

ACI's Latin America and Caribbean region is forecast to become the first to surpass pre-pandemic levels, said Al Hosni, while Asia-Pacific is expected to see a "substantial jump in traffic", boosted by the re-opening of the Chinese market. Some 400 million passengers are predicted to use airports in the Middle East in 2024 – just 3% less than in 2019 – while traffic in Europe in set to reach 95% of 2019's level and, according to Al Hosni, passenger numbers in Africa and North America will not be that far behind.

"The future of the global aviation industry will be marked by innovation, resilience and transformation change," remarked Al Hosni. Keynote addresses then followed from the director generals of ACI Asia-Pacific & Middle East (Stefano Baronci); ACI EUROPE (Olivier Jankovec); and ACI World (Luis Felipe de Oliveira).

Baronci set the tone for the event, highlighting how cuttingedge technologies are driving the travel experience and how airports are prioritising digital transformation.

He mused: "Innovation is a tool that helps humans do things better. To increase value and drive growth in a sustainable, repeatable, and substantial manner. However, as important as innovation is, getting it right is very challenging."

Jankovec pointed out that the travel recovery has reshaped demand, the need for stringent environmental policies, and how innovation can make the industry more sustainable to ensure that airports keep their licences to operate. Europe's airports, he said, were "transitioning from recovery to the new normal".

"Moving forward, we see an agenda of resilience and transformation for Europe's airports and the need to work towards a new value creation model based on three key strategy directions – sustainability, innovation and diversification," said Jankovec.

He reminded delegates about ACI EUROPE's establishment of an Innovation Forum earlier this year that is dedicated to





propelling transformative changes within the European airport industry.

ACI World's de Oliveira noted that the world's airports have invested a significant \$6.8 billion on the new technology this year alone, underscoring the commitment to improving their operational efficiency, performance levels and enhancing the airport experience.

He also reminded the audience about the importance of co-operation and collaboration with partners both within and outside the aviation industry. "There is no airline without an airport, and there is no airport without an airline, but there is no industry without customers," commented de Oliviera.

On innovation, he stated: "We have to look at how we use innovation and different processes to improve the services we bring to our customers. The future is very positive with passenger traffic set to double over the next 20 years, although accommodating this growth will not be simple.

"We have workforce [recruitment] issues, and will clearly not be able to double the size of our airports or airline operations to meet demand. So, we basically need technology to play a key role in the future, especially in areas of the airport where people can be elsewhere and use their expertise to better serve our guests."

The first panel session of the day was a good one. Billed as 'Innovation Ready Leaders – How to Develop a Corporate Culture with Embedded Innovation', we got to hear a little about the innovation building strategies of VINCI Airports, IGA Istanbul Airport, and Milan airport operator, SEA.

Addressing the topic for VINCI Airports, area director for the USA, Europe and South East Asia, and president of ACI Asia-Pacific and Middle East, Emmanuel Menanteau, stated that the global airport operator relied on its staff as well as technology to provide innovation across its network of 72 airports.

One of the ways it does this, he said, is to use an open innovation platform to allow the sharing of ideas, with innovation prizes offered as an incentive to staff to contribute. In addition, VINCI has created a 'Centre of Excellence' at London Gatwick, Lisbon and Lyon airports specifically to generate new ideas to help the group's airports become smarter, faster, more automated, paperless, bottleneck free and offer a better customer/user experience.

Menanteau, who declared that "innovation drives the world to change", said the VINCI group believes in a collaborative approach to innovation, so works with a lot of start-ups, third parties and different stakeholders in developing ideas as it "doesn't make things in-house".

In terms of the big picture, Menanteau suggested that innovation was crucial to supporting the decarbonisation of the aviation industry and would help the sector reach its Net Zero by 2050 target.

SEA CEO and president of ACI EUROPE, Armando Brunini, was another to argue that co-operation with others was key to driving innovation. SEA, for example, already works closely with many different suppliers and stakeholders to enhance its operations as well as with Airbus and different energy companies as it looks to lower carbon emissions at Milan's airports.

He also stated that risk taking sometimes meant failure, that communication from management was vital when it came to getting staff onboard with new innovations, and divulged that SEA was currently reviewing around 170 ideas collected from staff in an innovation challenge, from which they would probably select one or two to develop.

IGA Istanbul Airport's new CEO, Selahattin Bilgen, revealed that three major sources of innovation at the Turkish gateway were its Innovation Department, its IGA Hub entrepeneurship programme – in partnership with ITU ARI Teknokent – and collaboration with Plug and Play.





Next up was a presentation about the smart airport enabling benefits of 5G Wi-Fi networks from Lei Xinghua, Huawei's vice president of enterprise optical business domain, followed by a session about the increasing levels of collaborating between airports and tech giants, and another dedicated to the eVTOL phenomenon.

The tech giants panel, entitled 'Meet the Giants:
A New Journey Towards The Future' featured
representatives from Amazon Web Services; Idemia;
Cisco; Google Cloud and Huawei. Arguably, key
takeaways from the session are that predictive analysis,
paperless travel, virtual interactions, and robust cyber
security are the potential game-changers driving the
ongoing transformation of the airport industry.

The launch of the first commercial eVTOL flights in Paris next summer to coincide with the city hosting the 2024 Olympic Games means that eVTOL aircraft and vertiports are now firmly on the radar of the world's airports. The session, 'EVTOL – A New Way to Fly' featured some of the airport operators that are set to become early adopters of the new technology.

Houston Airports' chief external affairs officer, Saba Abashawl, noted that the airport operator would incorporate eVTOLs into its new masterplan and was still evaluating whether new infrastructure would be needed to accommodate them or if they could be handled in existing facilities at either Hobby, Bush Intercontinental or Ellington.

United Airlines has told HAS that it will start using eVTOLs at the end of 2026 and has already invested over \$1 billion with eVTOL manufacturer Archer Aviation to make sure that it is one of the first commercial airlines in the world to embrace eVTOL taxi services.

Explaining more about United's eVTOL plans, Abashawl said: "They want to start in 2026 with four aircraft moving about 26,000 passengers a year. This kind of scares me as we are not quite ready for that.

"In Phase 2, in 2028, United want to go to 16 aircraft handling some 251,000 passengers per year, and at full ramp up soon after that they want 32 aircraft making 650 flights a day to handle 661,000 passengers yearly. This gives you an idea about what kind of planning the City of Houston and HAS have to do to accommodate eVTOLs. There are lots of challenges on my table."

Talking about Groupe ADP's strategy on eVTOLs, deputy director of business development, Joyce Abou Moussa, said she had no doubt that eVTOLs will bring huge benefits for customers whose journey time is precious, but felt that it would be 10 to 15 years before they would have a significant impact on airports or the way the majority of people travel.

Korean Airports Corporation (KAC), which manages and operates 14 airports across South Korea, is preparing for eVTOL operations – in partnership with a number of Korean conglomoratres – to ensure that it is ready for the new mode of transport, according to the company's senior manager of the advanced air mobility office, Hyung-Kyu Woo.

Daniel O'Neill of Skyports, which is developing ground infrastructure for flying taxis, noted that his company built the world's first prototype vertiport for eVTOL aircraft in Singapore in 2019 and is currently working to deliver four vertiports in Dubai by 2026, including one at Dubai International Airport (DXB).

Immediately after the panel, ACI EUROPE's director of airport capacity and operations, Aidan Flanagan, called for all vertiport operators to join the association as full members.

The afternoon of Day 1 was made up of a series of short presentations before ending in a panel discussion about how artificial intelligence is transforming the passenger experience at airports.





Among those making presentations during the busy afternoon were Airbus' head of external affairs, Laurent Boisson, who in his speech about innovation for net zero aviation revealed that the aircraft manufacturer is currently looking at three different concepts for a hydrogen powered aircraft – a 1,000 nautical mile range turboprop aircraft, a 2,000nm range jet aircraft the size of the A320, and a revoltionary new 2,000nm plus range blended wing body.

A decision on what hydrogen powered aircraft it will develop will be made in 2027 with the most likely outcome at this stage being the 100-passenger capacity regional aircraft, with a provisonal date of 2035 set for it entering into service.

He noted that current Airbus aircraft were capable of carrying up to a 50% blend of SAF and traditional jet fuel and that it was working on certification for 100% SAF solution, although the issue today isn't so much about the fuel as its availability to the aviation industry.

Boisson was followed by Alfio Faro, a senior partner at Studio Fuksas, who spoke about some pioneering airport design projects in China and Saudi Arabia, and Incheon International Airport Corporation senior researcher, Seokhyun Son, who gave a presenation about 'Aviation in the Metaverse', and revealed that his gateway had spent years and invested upwards of \$1.3 million on developing the gateway's virtual reality service, Incheon XR Metaverse.

Son said: "The metaverse is capable of bridging the gap between virtual and real-world experiences. Through using the Incheon metaverse passengers are able to better enjoy the airport."

Safdie Architects' senior partner, Charu Kokate, then provided a fascinating insight into how Singapore Changi created a green and tropical oasis inside its Jewel Changi development courtesy of 2,500 trees, over 100,000 shrubs and, of course, its famous 40 metre high Rain Vortex, the world's largest and tallest indoor waterfall.

The penultimate single presentation of the day was given by Hisham Dekmak, TAV Technologies' sales and business development manager, who explained how technology developed by the company, such as its next generation airport management solution, Total Airport Management Suite (TAMS), is now being sold to other airports across the globe.

SITA's Jihad Boueri then moderated the day's final panel session called 'How Artificial Intelligence is Transforming Future Passenger Experience at Airports' with a panel of experts that included Heathrow Airport's head of technology, design and innovation, Steve Armitage.

Talking about how Heathrow is dealing with innovation, Armitage admitted that he personally had to be innovative and adapt and evolve in recent years as the business had changed since the pandemic.

"Before the pandemic we were focusing on some fairly transformational stuff with more long-term outcomes," said Armitage. "I was doing some experiments with autonomous vehicles airside, robotics and, having quite a lot of fun. Then the pandemic came, and along with everyone else, our priorities changed to focus on COVID.

"Since then we have been focused on recovery, and now, finally, we are starting to look futher forward again, which I am very pleased about. Recent innovations at Heathrow include the time slot trial for airport security [passengers can now pre-book slots] we just announced, and trials of a mobile electric vehicle solution, which is effectively a battery on wheels."

Also on the panel were Basim Allawati, vice president of infrastructure and security at Oman Airports; Federico Cabrera, operations and passenger experience manager at Montevideo—Carrasco International Airport (MVD) for Aeropuertos Uruguay; and Kazumi Hiraoka, general manager at the DX development and planning department in the corporate planning division at Narita International Airport Corporation.





Allawati took the opportunity to share his experiences about Oman's Innovation Lab and how the airport is trialling multiple Al tools to enhance the passenger experience, baggage screening and operations on the apron.

Hiraoka mentioned Tokyo Narita's pioneering Face Express facial recognition system and the role AI has played in ongoing experiments with autonomous vehicles, and the development of the chatbot the airport uses to communicate with passengers. While Cabrera discussed MVD's use of AI to analyse its quarterly ASQ results to allow it to improve services for passengers, and the trial of a tool to detect forbidden agricultural products being brought into Uruguay.

But the day wasn't quite yet done as in the early evening a fleet of coaches transferred delegates into downtown Muscat to enjoy a fabulous outdoor Gala Dinner in the grounds of the Crowne Plaza hotel overlooking the beach and the Gulf of Oman.

### DAY 2

Brand strategy and innovation; airport innovation hubs; and data sharing were all on the agenda in the opening sessions of the second day of Airports Innovate.

The morning began with an interesting discussion about the innovative marketing and branding concepts being embraced by airports to reflect their ever-evolving offerings and business models.

Shalini Rao, chief marketing officer at Benguluru's Kempegowda International Airport, explained how the newly opened Terminal 2 had created a dynamic new facility for the gateway that, in addition to its operational benefits, provided a spectacular showcase for local art and culture as well as many new opportunities to boost non-aeronautical related revenue.

Talking about Fraport's brand philosophy for Frankfurt Airport and its global airport network, the company's vice

president of corporate strategy and digitialisation, Claus Grunow, explained how the company is repositioning its brand to reflect the passenger journey, its staff, and connecting the world. Qualities Fraport hopes will make it easier to recruit new talent around the globe.

Also on the panel, moderated by JCDecaux's marketing and business development director, Jérôme Lepage, was Yousif Al Bulushi, founder and CEO of AWJ Innovation.

Arguably the highlight of the conference followed, a lively and highly enganging panel discussion about Airport Innovation Labs, expertly moderated by ACI World's senior vice president for programmes and commercial services, Antoine Rostworowski.

The session effectively covered the relatively new concept of Airport Innovation Labs and how an ever increasing number of airports are establishing their own on-site facilities to test and develop new technologies that they benefit from directly and could potentially sell to other airports.

One of the early adopters of an Innovation Lab is Hyderabad International Airport, whose executive director, SKG Kishore, told delegates that the potential benefits that they offer meant that he now considered them to be a "must have, and not a nice to have facility" for any airport.

Talking about innovation in general, Kishore said he viewed it as a transformation process and culture rather than just about technology, which he referred to as simply the tool to help you achieve the transformation.

He noted: "There is no definitive destination for innovation. It is all about context and bringing change to the company culture and creating an open platform [the GMR Innovation Exhange or Innovex in the case of GMR] that will enable each and every individual in the organisation to think differently, giving them the freedom to experiment and taking away the fear of failure."





Giulio Ranucci, head of innovation and digital at Aeroporti di Roma (AdR), noted that over the last three years the Italian airport operator had worked with a number of start-ups from across the world on potential solutions for its Rome airports.

Oman Airports' digital transformation director, Rashid Hamood Al Busaidi, was as equally enthusiastic about the worth of airport innovation labs, even though his company only launched its own facility in Q4 this year.

In answer to a question about the company's general approach to innovation, he said that Oman Airports is focused on fostering an innovation culture in the mindset of its staff, follows a clear and well defined innovation strategy, and uses events such as the recent hackathon to encourage out of the box thinking.

Also on the 'Airport Innovation Hubs: Playground for Transformation' panel were Pablo Lopez Loeches, head of ideation and entrepeneurship at global airport operator, Aena, and Benjamin Kloss, director of Plug and Play Abu Dhabi.

All agreed that being innovative and forward thinking would prove key to their future success as well as providing potential new sources of revenue through the solutions developed at their innovation labs.

Thomas Romig, ACI World's senior vice president for safety, security and operations, then took to the stage to update delegates about the launch of ACI's new data sharing platform (AirportShare), stressing that in today's always connected world, "data is the new gold".

The concept – developed in partnership with ACI World Business Partner (WBP) Rockport Software – effectively uses the common language Airport Community

Recommended Information Services (ACRIS) platform to share data that can be used by airports to manage operations, improve the customer experience and bolster revenues.

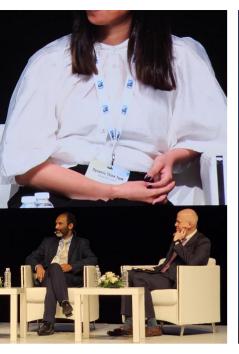
Six months on from the official launch, Romig said that AirportShare had a growing airport community that includes early adopter Rome Fiumicino and most recently IGA Istanbul Airport. It also have three data consumers – Beontra, Roadify and Mappedin – all connected directly to the platform.

When ACI World completes the proof of concept for AirportShare early next year, it plans building it into a more comprehensive platform by adding additional levels of data from activities such as airport parking.

"So, once we build this up, in essence we will have a universe where we can connect all of the different airports across ACl's network, or even wider, and data consumers will be able to leverage that date for the benefit of their customers, for the benefit of consumers and for the benefit of the community at large," enthused Romig.

A quick 15-minute presentation by Amazon Web Services' chief technology officer, Shivagami Gugan, about 'Aviation In The Metaverse 2.0' followed, who in turn was followed by Stine Marsal, Copenhagen Airport's former service excellence director, who gave an enthusiastic and passionate presentation about the importance of inclusion, citing the success of the airport's launch of Sunflower Lanyards for people with hidden disabilities.

Next up was an engaging panel discussion featuring industry experts, risk management professionals, and insurance specialists who delved into the critical intersection of risk management, sustainability and resilience in the airport business.





Indeed, delegates learnt how sustainable practices such as utilising renewable energy, water conservation, and waste reduction can effectively mitigate risks and enhance the resilience of airports.

Some key takeaways included the need for airports to have a robust business continuity plan; a robust emergency framework will enable airports to mitigate black swan events; pragmatic dialogues with partners and stakeholders can help mitigate risks; A strong risk management policy can enhance the reputation of the airport.

On stage were KJ Devasia, assistant vice president and head of enterprise risk and corporate resiliance at Bangalore International Airport Limited (BIAL); Stefan Rüter, senior vice president for controlling and financial planning at Fraport; and Sara Sabt, Gulf Air's director for risk management.

There followed a quich change of tack when Rana Nawas, a partner for transportation and logistics at Oliver Wyman, launched the new White Paper, *Financing The Airports of Tomorrow: A Green Transition Toolkit*.

Produced in collaboration with the World Economic Forum and ACI World, it is designed to help airports determine the most efficient and effective ways to finance their green transformation to enable the decarbonisation of the aviation industry.

The carbon footprint of baggage and how it needs to be reduced during aviation's decarbonisation journey was the subject of a thought provoking presentation by NACO's airport digitalisation lead, Clive McNabb.

He actually raised a few eyebrows by suggesting that one way to do this would be to ban all hold luggage on flights, and even though he himself accepted that this would never win the approval of passengers or indeed the airlines which

make considerable amounts of revenue from baggage, his case study for doing so was quite compelling.

McNabb claimed that by NACO calculations, if all hold baggage was banned on KLM flights out of Amsterdam Schiphol for one year, the airline would save around \$110 million in fuel costs per annum and reduce emissions by 3% per flight.

More realistically, perhaps, he suggested that today's baggage allowance could be reduced to help the planet and believed that there was much the industry could do to make the baggage handling process more efficient and lower CO2 emissions.

These included making the loading/unloading process more efficient, optimising the use of baggage handling systems — which he claimed on average account for 10% of an airport's electricity useage — and doing a better job of transporting luggage, arguing that the number of mishandled bags in 2022 was equivalent to the emissions from 6,500 flights.

With the conference end fast approaching there was just time for two more panel discussions, firstly one about 'New Paths to Accessibility For People with Disabilities', followed by 'The Future of Us: The Evolution of the Airport Workforce'.

It was right that the event should end with two human resources focused panels as it is often easy to lose sight of the key role people play in not only making everything work but in fostering innovation and, of course, looking after the billions of us that travel by air each year.

The first of these sessions covered ways we can make airports even more accessible for travellers and staff with physical and hidden disabilities, and the latter addressed today's workforce shortages and how airports can retain, develop and upskill their workforces to hold on to them and increase their appeal to future generations.



# **INVESTING IN THE FUTURE**

We report on the launch of a new multi-billion dollar investment programme designed to transform the facilities at Brisbane Airport.

risbane Airport is embarking on its next great transformation, with a A\$5 billion plus Future BNE investment programme, which it says is designed to create a better airport experience and cater for Queensland's growing population in the coming decade and beyond.

It is not one project, but more than 150 projects to transform Queensland's most important transportation hub.

Future BNE will include upgrades to the Domestic Terminal, International Terminal and to continue planning a new Terminal 3 Precinct.

Other aviation projects will see the expansion of aircraft parking and aprons, the resurfacing of the legacy runway, and the construction of a state-of-the-art Aeromedical facility to centralise medical repatriation and emergency services at Brisbane Airport.

"We're investing now to get ahead of the population growth curve so we're ready for 2032 and beyond," enthuses Brisbane Airport Corporation CEO, Gert-Jan de Graaff.

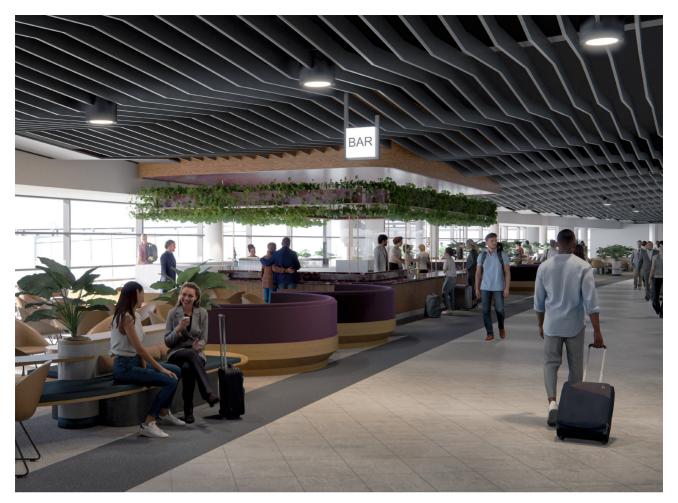
"We're investing now so Queenslanders and the world are more closely connected. And we're investing now to be a leader in sustainability." More than 20,000 people currently work across Brisbane Airport for more than 600 employers. This is forecast to rise by an extra 10,000 people in the coming decade.

BAC notes that the upgrade to the Domestic Terminal, which began in late October, has provided it with the opportunity to "refresh" it with a series of projects that will transform Queensland's gateway to the world.

"The Brisbane Airport Domestic Terminal is the most connected domestic terminal in Australia with services to 61 destinations, so it is a very important transport hub," says de Graaf.

"In the past year, 20 million passengers travelled through Brisbane Airport, and we expect that to grow by 10 million passengers in the coming decade as Queensland's population expands and our terminals need to be ready.

"More than 20,000 people come to work at Brisbane Airport every day and we forecast that to grow to 30,000 by the time the flame is lit at the Opening Ceremony for the 2032 Olympic and Paralympic Games. Future BNE will also create thousands of construction jobs as our 150 projects come to life."



### DOMESTIC TERMINAL SECURITY UPGRADE

The replacement of security screening systems is required by the Australian Government's Strengthening Aviation Security Initiative and must be completed by December 2025.

As a result, the airport will install new Computed Tomography (CT) technology from Rapiscan, which it says will improve safety through better security screening, ensure a more streamlined process at the terminal's screening checkpoints, and take the hassle out of security process as passengers will be able to leave most items in their hand luggage, including laptops and aerosols.

# **NEW MEZZANINE LEVEL**

To cater for the size and weight of the new screening equipment, a new Mezzanine Level will be constructed above the existing Central Terminal Area.

This is a vast engineering project taking place in a terminal while still caring for up to 60,000 passengers every day. When finished, it will allow direct access from 'Skywalk' (the walkway connecting carparks to the terminal) into security screening for passengers who have already checked-in and only have carry-on bags.

# **NEW WORLD-CLASS BAGGAGE SYSTEM**

Brisbane Airport is installing a new state-of-the-art baggage system in the Domestic Terminal to replace the existing

system one that was intalled in the 1980s and comprises three separate systems.

According to the airport, when the project is complete, BNE will have a single "world-class system" across the entire Domestic Terminal, which it notes is "great news for reliability, capacity, security and sustainability."

# **DOMESTIC TERMINAL SELF CHECK-IN**

Domestic Terminal Self Check-in upgrades will provide a quick and simple check-in process for passengers of all domestic airlines.

The new check-in areas, says BNE, will be easy to use and will work seamlessly with bag drop and security screening, leaving more time to relax and explore the airport.

### **DINING EXPANSION**

Construction has just begun on expanding the eating and dining options in the Virgin Australia end of the terminal, with a new bar along the glass windows to be constructed to allow customers to sip cocktails while watching planes land and depart.

A total of 10 new food and beverage options will be available for travellers. It will include a 360-degree restaurant, the largest ever built at the airport, with the 10 new exciting tenants to be announced soon.



# **MENU OF INNOVATION**

Pragma Consulting's Katie Hastings looks at some examples of retail/F&B innovation at airports across the globe.

irports have enjoyed a sudden influx of high passenger numbers since the end of the pandemic. While this is great news, it has had an impact on airport operations, and commercial space capacity has become a major challenge for airports as they try to accommodate the growing demand for F&B and retailing.

Commercial is an important aspect of revenue generation for airports and while operational requirements must take priority, the significance of commercial revenue should not be ignored.

Although there are longer-term infrastructure solutions that airports can undertake to address these challenges, in the shorter-term they need to find innovative approaches to optimise the commercial space.

### **INTEGRATING F&B AND RETAIL**

This involves creating seamless transitions between shopping and dining areas, utilising shared spaces to ease passenger flow, and integrating unique concepts that build on many commercial trends, such as experiential and digital.

Singapore Changi (SIN), Rome Fiumicino (FCO) and Copenhagen (CPH) airports have arguably revolutionised the airport experience by seamlessly integrating F&B outlets with retail spaces. This innovative approach creates a harmonious interaction between dining and shopping, ultimately enhancing the customer experience.

One of the key elements of this integration is the airportowned F&B-friendly seating areas. These dedicated spaces provide passengers with comfortable seating options where they can relax, dine, and engage with their surroundings. By strategically placing these seating areas near F&B outlets and retail shops, these airports not only optimise their seating capacity but also encourage passengers to spend more time within the airport premises.

The Jewel Changi complex at SIN showcases a best in class approach to F&B and retail integration for the passenger. The complex combines world class retail outlets and dining experiences with a variety of leisure attractions for the passenger to enjoy. By integrating F&B and retail, Jewel Changi offers passengers a comprehensive experience that maximises commercial opportunities within a limited space while supporting the passenger journey.

### **OPTIMISING OPERATIONAL EFFICIENCIES**

This is another crucial aspect of mitigating commercial space capacity issues in airports. Efficient processes help reduce congestion and enhance passenger flows while also reducing the stress passengers have during the airport journey. This, in turn, can result in an increase in passenger spend for the airport. Tokyo's Narita International Airport (NRT) and Miami International Airport (MIA) in the US are two prime examples of building improved operational efficiency.

Narita launched 'Face Express', a contactless airport experience for passengers. Through the use of biometric technology, passenger's facial imagery is captured and verified against their passport, which can then be used throughout the journey, from check in to the boarding gates. Passengers can therefore experience less congestion, have a more seamless experience and ensure additional time for an airport's retail offering.

MIA's MIA2GO app allows passengers to order their F&B from any unit available for collection. This innovation not only streamlines the shopping experience but also reduces the need for extensive retail spaces within the terminal. By leveraging technology to optimise operations, airports can alleviate space constraints while enhancing customer satisfaction.

Mobile food ordering apps such as MIA2GO also create the opportunity to increase the quantity of F&B concepts without increasing the commercial space in premium locations, using remote kitchens.

### **BRAND ACTIVATION AND POP-UP CONCEPTS**

These initiatives bring unique and engaging experiences to passengers, build on the impact of commercial retail trends, and attract more passengers within a limited space. Amsterdam's Schiphol Airport (AMS) exemplifies this approach through its 'Holland Boulevard'.

This is a dedicated area that showcases the best of Dutch culture, featuring pop-up exhibitions, art installations, and interactive displays. By promoting local brands and cultural experiences, Schiphol is enhancing passenger engagement while creating additional revenue streams.

Such activations enable airports to adapt their commercial offerings dynamically, leveraging temporary spaces and revitalising the passenger experience.

### UTILISE THE 'DEAD SPACE' AROUND THE AIRPORT

Many airports can further enhance the commercial provision within a limited amount of space by looking to up and coming commercial trends that are being seen in downtown commercial areas.

Commercial trends such as experiential activation is becoming increasing prevalent both downtown and at airports as many passengers have begun wanting to experience an increased level of innovation and excitement on their travels.

Experiential activation can build passenger experience and commercial revenue in airports through the use of small, empty pockets of 'dead' space that are unable to house a significant scale of commercial offer but are nevertheless useful in drawing passengers to key commercial zones through the innovative use of space.

Airports such as Schiphol and San Franciso International Airport (SFO) are able to understand how to activate their dead spaces in order to build commercial revenue with experiential activation.

At AMS, the focus is on transforming empty corridors into immersive experiences. The Riiksmuseum, for example, is located between Lounges 2 and 3 and holds regular exhibitions and events throughout the year.

SFO builds on the arts and culture of the city through utilising space that was no longer being used for operational purposes such as unused ticket machines as temporary displays.

### **EMBRACE DIGITAL INNOVATION**

Digital innovation is increasingly being used in order to activate a more efficient use of space as passenger awareness and technological usage continues to grow. While digitalisation is primarily focused on the operational aspects, there are many ways and examples of how airports have utilised digitalisation for commercial purposes.

Many commercial brands are taking advantage of the growth in consumer knowledge around digital innovation and technology by utilising various technological initiatives such as mobile apps, online ordering platforms and personalised marketing campaigns.

This can be done through the launch of e-commerce sites which encourage passengers to avail of a seamless travel retail shopping experience like that of Auckland Airport's 'The Collection Point' and Dublin Airport's 'Click and Collect'.

Both provide passengers with the ability to collect their purchases in the airport at the beginning or end of their journey. Passengers are therefore able to shop on a tight timeline or travelling with their purchases for the entire journey with airports able to offer additional products online that would not take up additional commercial space.

Other airports are using digital innovation to build on the 'wow factor' of the airport and increase the passenger experience. Taoyuan International Airport (TPE) recently ran a digitally immersive pop-up discovery store for the Glenfiddich whiskey brand. Passengers can have their movement captured by a motion sensor which creates an evolving piece of computer-generated art that references the process in which the whiskey is made. Passengers can then personalise their purchases with a written or recorded message by scanning a QR code on their phone.

Commercial space capacity issues pose significant challenges for airports in meeting the growing demands of passengers and consumer trends. However, there are many ways in which airports can ensure a more efficient use of space while also building the passenger experience and increasing commercial revenue.

Through the integration of F&B and retail, operational efficiencies, leveraging brand activation and also utilising 'dead space' and digital innovation, airports can enhance the passenger experience while reducing passenger stress, optimise commercial spaces, and maximise revenue potential within a limited space.

# **ABOUT THE AUTHOR**

Katie Hastings is a consultant at Pragma Consulting (www.pragmagroup.com) and was previously group strategy analyst for Irish airport operator, daa.



# **GREEN PIONEERS**

Editor, Joe Bates, rounds-up some of the sustainability news stories making headlines across Asia-Pacific and the Middle East.

# TAKING AIRPORT CARBON ACCREDITATION TO NEXT LEVEL

Christchurch Airport and nine European airports are the first in the world to achieve the new Level 5 status in ACI's Airport Carbon Accreditation programme, with Christchurch being the only gateway in the Southern Hemisphere to achieve the top certification.

"With Level 5, we establish a reference framework for achieving a net-zero carbon balance for airports – a milestone unmatched by any other industry to date," noted ACI EUROPE's director general, Olivier Jankovec, whose region launched the global programme in 2009.

Christchurch Airport's chief executive, Justin Watson, enthused: "We've working hard at this for more than 15 years. A dedicated team of people have gone above and beyond to get us here."

While the airport's sustainability transition leader, Claire Waghorn, (Pictured above), said: "This is a moon shot moment for our team. This is a challenging sector to abate and no one is under any illusion – we have a whole lot more work to do to decouple carbon from aviation and make the zero aviation dream a reality.

"We recognise, however, the critical role that aviation plays, especially for isolated nations, and therefore are committed to being part of the solution. That's why 90% of the work we do now focuses on how we can help other businesses, including our airline partners, decarbonise.

"As a business, we are working hard. We are building a 400-hectare renewable energy precinct, Kōwhai Park, to provide the green energy low emission aircraft will need in the future.

# GROUNDBREAKING CEREMONY FOR NEW SOLAR FARM AT QUEEN ALIA

The groundbreaking ceremony for a new 4.8MW photovoltaic (PV) solar farm was held at Amman's Queen Alia International Airport (AMM) in early December.

The new facility will be designed, built and operated by Shams al Mattar lil-Taqa, a wholly owned subsidiary of Kawar Investment, under the terms of an agreement signed with AMM operator, Airport International Group (AIG), earlier this year.

It will be located on 65,000sqm of unused land to the north of the Northern Runway and is expected to generate over 10.5GWh of electricity yearly, which will account for more than 24.5% of the airport's operational energy requirements or the equivalent of powering over 3,000 homes.

Equally as important, it will reduce AMM's carbon footprint by around 12,000 tons of CO2 emissions annually. The solar farm is expected to begin producing electricity by Q3 2024.

AIG chairman, Fernando Echegaray, commented: "Today, we are not just breaking ground; we are breaking barriers and setting an example for the entire region, demonstrating that airports can be at the forefront of eco-conscious aviation.

"This onsite solar farm is a crucial step towards making Queen Alia International Airport one of the largest solar-powered airports in the MENA region. By harnessing the power of the sun and deploying innovative solutions in the global fight against climate change, this cutting-edge project underscores our unwavering pledge to environmental responsibility – an obligation that has proven crucial within the global aviation industry."



AIG CEO, Nicolas Claude, noted: "As the operator of Jordan's prime gateway to the world, Airport International Group has consistently prioritised environmental stewardship.

"This project also reinforces our position as the first airport in the Middle East and second in Asia Pacific to reach Level 4+ 'Transition' of the Airport Carbon Accreditation programme and a two-time recipient of the ACI Asia-Pacific Green Airports Recognition in 2017 and 2022."

# FIRST ANNUAL SUSTAINABILITY REPORT FOR QUEENSTOWN

Queenstown Airport in New Zealand has released its first annual Sustainability Report and climate-related disclosures.

"We're really proud of the work we're doing to reduce our environmental impact, to support our community to thrive and to enable lower-emission aviation," says the airport's chief executive, Glen Sowry.

"We have started with the things we can directly control, but we are also turning our attention to ways we can use our influence to make a positive difference."

To date, the airport operator has converted NZ\$100 million in bank lending facilities to sustainability-linked loans this year.

"We've worked with our banking partners to set ambitious targets to hold us to account as we continue to implement our Sustainability Strategy and decarbonisation roadmap," noted Queenstown Airport's general manager for sustainability and corporate Affairs, Sara Irvine.

"It's important that we are all working together to achieve our targets. We've also launched a ZQN Sustainability Pledge uniting businesses operating across the airport campus with shared sustainability and community wellbeing targets.

"We are really pleased that 17 operators have already signed up to the pledge and we look forward to working

with other businesses and agencies here at ZQN to sign the pledge."

### SINGAPORE CHANGI CARBON OFFSET INITIATIVE

Changi Carbon Offsets is the latest green initiative launched by Changi Airport Group (CAG) as it looks to help mitigate carbon emissions.

The new initative is aimed at passengers, who with the aid of an intuitive carbon calculator on the Changi Airport website (https://carbonoffsets.changiairport.com) and Changi App, can calculate the carbon emissions from their forthcoming flights and be offered the option to pay to offset the emissions from their journey.

Working in partnership with Carbon Clicks, a New Zealandbased carbon offset company, CAG has selected what it dscribes as a set of high-quality carbon offset projects, which would have a significant impact on the environment and communities.

The selected projects will help to conserve and protect existing forests in Indonesia, plant forests in China, as well as provide wind power generation in India.

# HAMAD ENVIRONMENTAL MANAGEMENT SYSTEMS

Hamad International Airport (DOH) has renewed its ISO 14001:2015 Environmental Management System certification with the British Standards Institution (BSI).

The airport believes that the certificate extension – achieved after successfully completing an audit – reaffirms its commitment to setting industry standards towards environmental sustainability and stewardship.

"Retaining this global recognition is a testament to Hamad International Airport's environmental sustainability goals towards waste management, minimising the consumption of natural resources and mitigating climate change," says the airport.

# **WBP NEWS**

The latest news and views from ACI Asia-Pacific & Middle East's World Business partners.



# DUBAI WORLD CENTRAL TO GET HUGE NEW ENGINEERING FACILITY

ADP Ingénierie has been appointed as project consultants for Emirates' huge new \$950 million ultra-modern engineering facility at Dubai World Central–Al Maktoum International Airport (DWC).

Spread over one million square metres, the engineering complex will be the largest and most advanced of its kind to be operated by any airline, adding a boost to Dubai's world-class aviation infrastructure.

Purpose-built to support Emirates' aircraft fleet and operating requirements into the 2040s, the facility will also be a centre of excellence for commercial aviation engineering services in the Middle East, with spare capacity potentially offered to other airline operators.



# PPG OPENS NEW LOUNGES IN CHONGQING

Plaza Premium Group (PPG) will make its debut in Southwest China with the opening of three lounges at Chongqing Jiangbei International Airport (CKG).

The three new Plaza Premium Lounges, set to open in stages from the fourth quarter of 2023 to early 2024, are the latest inclusions in its expansive network that spans over 80 international airports worldwide.

"For 25 years, the mission of PPG has been to make travel better by offering exceptional airport hospitality experiences. Our latest lounges in Chongqing emplify that ethos by not only providing a calm and comfortable venue, but by infusing local culture through our unique art and food collaboration," enthuses PPG's regional general manager for North Asia, Jenny Zhang.

# WBP PROFILES



### **COLLINS AEROSPACE**

Location: Singapore
Type of business: IT &

Communications

W: www.collinsaerospace.com
Airports, airlines and ground
handlers around the globe rely on
Rockwell Collins' ARINC integrated
airport solutions. The company's
products and services are used in
over 100 airports worldwide. Its
efficient and cost-effective shared
systems feature biometric identity
management for use at check-in,
security access points and
boarding gates including use with
self-boarding gates and common
use check-in on tablet devices.

# KEISER PHILLIPS ASSOCIATES

Location: United States

Type of business: Consulting &

Management **W:** www.kpa.aero

Keiser Phillips Associates (KPA) is a consultancy firm that specialises in international business development, marketing services, bilateral trade and investment affairs and market research. KPA Aviation specialises in aviation demand forecasting, airports and airport-related facility planning and air cargo marketing issues.

# NATIONAL PARKING COMPANY

**Location:** United Arab Emirates **Type of business:** Retail &

Commercial

W: www.mawgif.com

For 15 years the National Parking Company (Mawgif) has become the pioneer in the Middle East for being the leading airport partner for parking operations and integrated technology and its ancillary services. It invests in airport parking through concession based contracts or BOT (Build Operate Transfer) agreements.

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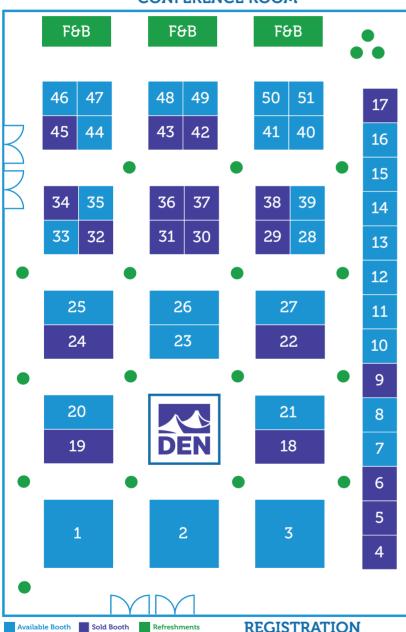
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