New Midfield Terminal
“redefining travel and reinforcing Abu Dhabi’s position as a global hub”

Interview: Bryan Thompson,
CEO Abu Dhabi Airports

Optimising capacity and passenger experience
ACI EUROPE’s new APOC Peer Review Programme

The impact of airline failures
European airlines’ race to the bottom – who reaps the benefits?

BUD’s focus on development, passenger experience and sustainability
New Budapest Airport CEO, Dr. Rolf Schnitzler, interviewed
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Unlocking renewable energy procurement at Europe’s airports

European aviation associations come together to organise first-ever EU Aviation Night at the European Parliament

Aviation Security: Leading from the Front

Real-time planning for more punctual and efficient airport operations

Time Europe’s airports start preparing for implementation of new ICAO methodology for better reporting runway surface conditions

Exchanging best practice on airport charges regulation

‘Return on Attention’ for associates: the HMSHost approach to F&B for airports

Bringing Abu Dhabi to the world “by creating the ultimate duty free experience”

Providing the IT to effectively manage airport operations from terminal to airfield

Oman Airports investing to exceed expectations

Delivering a fast, secure, seamless journey to travellers

Debunking common myths about revenue management for parking

“The arrival of rotating CT at the passenger checkpoint is undoubtedly a defining moment”

Genève Aéroport focused on social responsibility and sustainable development

Dr. Rolf Schnitzler, CEO Budapest Airport

People flow solutions to enhance passenger experience

With Rohit Ramachandran, CEO Jazeera Airways

‘Ho’ookipa’: not just a beach

Passenger-focused innovation

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Europe usually prides itself on being a place of progressive thinking when it comes to policy making and regulation. But sometimes enlightenment can come from faraway places, exposing our own short-comings and occasional anachronism.

This was clearly the case a few weeks ago when Australia’s Productivity Commission delivered its final report into airport regulation. Indeed, the contrast could not be more striking between ‘Down Under’ and most of the ‘Old Continent’.

While more than 60 airports in Europe continue to be subjected to intrusive and highly prescriptive regulatory controls at national level, Australia made clear there was no need for anything like that in its own market. The Productivity Commission – Australia’s highly respected independent research & advisory body to the Government – confirmed its support for a light-handed price monitoring regime for just 4 airports: Sydney, Melbourne, Brisbane and Perth.

The main reasons for that rest in the focus of the Productivity Commission on what is good for consumers, air connectivity and society at large – rather than what is good for airlines and their shareholders. Crucially, the reality of airport competition and the ability of airlines to exercise countervailing power vis-à-vis airports came to the fore. Both led the Productivity Commission to favour commercial negotiations between airports and airlines rather than regulatory intervention. In doing so, it also recognised that a certain degree of tension is inevitable in such commercial relationships.

Surely, this should be food for thought for European regulators – both at EU and national level.

For one thing, our European airport market is even more competitive than Australia’s. Europe boasts a very dense network of more than 500 airports, alternative modes of transport are a reality and airline consolidation is accelerating. Over the past 3 years alone, the share of European airports offering incentives and rebates to attract & retain airlines’ business has increased from 85% to 98%. These facts alone speak for themselves.

On the positive side, the European Commission has finally started to acknowledge the reality of airport competition. Its recent evaluation report on the EU Airport Charges Directive noted the diminishing market power of European airports and did not bring any evidence that airports today risk abusing whatever market power they may have. It remains to be seen whether the European Commission will be coherent with its own findings when concluding the impact assessment for potential revision of the Directive in the coming months. The jury is still out.

However, the jury is already biased with a number of national regulators. Recent proposals tabled or decisions taken by regulators in Italy, France, Ireland and Switzerland show that market reality is being ignored. Their focus remains on applying a downward pressure on airport charges – with Nice Airport required to lower its charges by -33.4%, Dublin (daa) by -18% and Zurich by -15%. In doing so, these regulators assume that passengers’ & society’s interest on the one hand and airlines’ interest on the other are the same. This is at best naïve – at worst politically motivated.

Crucially, these regulators are also ignoring what the Australian Productivity Commission calls “the chilling effects” that over regulating and pushing down airport charges has on investment, “leading to a long-term risk of increased congestion and falling quality of service” and the prospect of “incumbent airlines being able to use the system to stymie investment that would facilitate increased airline competition, potentially leading to higher fares.”

These risks are particularly relevant in the European context. More than half of the most congested airports globally are located in Europe and airline consolidation results in more incumbent airline dominance. On top of that, it is high time for regulators at both EU and national level to factor in Climate Action. Apart from a renewed focus on the user pays principle, this means Europe’s airports will need to recoup their investments to deliver on their pledge to achieve Net Zero CO2 emissions by 2050. Such investments could see capital expenditure for the top 50 European airports increasing at least by €25.9bn (passenger terminals only).

Ultimately, the unprecedented societal (and possibly existential) challenge aviation is facing in the wake of the Climate Emergency requires increased cooperation across the board between all industry stakeholders. Yet, there is little doubt regulation in Europe incentivises conflicts between airports and airlines. We still have to see regulators admitting that they do not have perfect knowledge about operations, costs and financing, and that commercial dynamics and airline-airport agreements would lead to better outcomes. It is high time to move towards market-driven approaches that foster these commercial dynamics and cooperation – and to finally normalise airport-airline relationships.

By Olivier Jankovec, Director General, ACI EUROPE

Time for an enlightened approach to airport regulation – Lessons from ‘Down Under’

1 http://www.asi-aeroports.fr/decision-de-fixation-des-tarifs-d-aeroports-de-la-a141.html
2 https://www.daa.ie/airport-charges-decision-a-disaster-for-passengers-and-for-the-irish-economy/
Krakow Airport

Krakow Airport has appointed London-based design specialists The Design Solution (TDS) to transform the commercial spaces in its terminal. Over the past decade the airport has been one of the fastest-growing regional airports in Europe and has developed an ambitious Master Plan for its long-term development. The blueprint for the future includes the expansion of the terminal building and apron, repositioning of the cargo facility and the construction of a new runway. The airport, which expects to handle close to eight million passengers this year, has chosen PIG Architekci Sp. z o.o. to spearhead the terminal expansion project’s design team. TDS will carry out the commercial planning for the new-look terminal. All works are due for completion in 2026.

Florence and Pisa airports

Florence and Pisa will be among the first European airports to become 100% plastic free. 150kg of plastic are collected every day and over 3,000 litres of bottled drinking water are wasted. Aware of this, Toscana Aeroporti has presented an initiative that ranks among the first in the airport sector: transforming Florence and Pisa into 100% Plastic Free airports and engaging them in the recovery of water resources. The Toscana Aeroporti project will be developed in three macro-phases: Phase 1 Recovery and Recycling, Phase 2 Stop Plastic, Phase 3 100% Plastic Free. The main actions include: installation of bins to collect water and other liquids at the security checkpoints, installation of drinking water fountains landside and airside and, eventually, an airport-wide ban on the sale and use of plastics.

Istanbul Airport

Istanbul’s new massive airport is receiving a helping hand from “humanoid” wheeled robots introduced to assist passengers in navigating the structure. Mini ADA, the robot with artificial intelligence developed by Akinrobotics, Turkey’s domestic robotics brand, has been launched at the country’s new hub. Four robots that express themselves through their arms and on-screen faces are now hard at work guiding passengers around Istanbul Airport’s 1.4-million-square-metre terminal. Passengers will be able to approach the robots and scan their tickets to see their flight status, get directions and view other flight information in English or Turkish.

Bristol Airport

Bristol Airport has now switched to a 100% renewable electricity supply in a bid to draw closer to achieving carbon neutrality by 2025. Electricity is the largest contributor to carbon emissions from on-site airport operations and the three-year agreement with global renewable energy supplier, Ørsted, will see the airport’s annual electricity use of 17 million kWh powered entirely by renewable sources. What’s more, a growing number of aircraft stands are equipped with Fixed Electrical Ground Power (FEGP), reducing the need to use diesel powered engines for essential pre-flight services. Over the duration of the contract an estimated 14,000 tonnes of carbon will be saved across the airport site as a result of the move to renewables – equivalent to the emissions from driving 34m miles in an average car.

TOSCAN AEROPORTI HANDLED 3.8 MILLION PASSENGERS IN THE FIRST HALF OF 2019 – A 0.6% INCREASE ON THE PREVIOUS YEAR.

KRAKOW AIRPORT HANDLED OVER 800,000 PASSENGERS IN SEPTEMBER 2019 – AN IMPRESSIVE 31% INCREASE ON THE SAME MONTH LAST YEAR.

THE LATEST FIGURES SHOW THAT BRISTOL AIRPORT EXPERIENCED 2.7% GROWTH TO OVER 500,000 PASSENGERS IN SEPTEMBER 2019.

ISTANBUL AIRPORT, WHICH OPENED ON 29 OCTOBER 2018 AND HAS BEEN OPERATING AT FULL CAPACITY SINCE 6 APRIL 2019, HAS SERVED OVER 41 MILLION PASSENGERS, ON 256,521 FLIGHTS, WITH 28 MILLION PIECES OF BAGGAGE AND HAS MOVED 855,259 TONS OF CARGO.
Manchester Airport

Manchester Airport is to introduce a home bag check-in and delivery service for passengers in partnership with Airportr. The fully integrated baggage service allows passengers to have their luggage collected straight from their home prior to the date of their departure, meaning they can travel to the airport bag-free, head straight for security, and reunite with their bags in baggage reclaim at their final destination. The service will be available to passengers travelling with partner airlines which include Virgin Atlantic, easyJet, British Airways, American Airlines, Cathay Pacific and Finnair. The new system creates a ‘win-win’ scenario, where the passenger experience is enhanced with a convenient at-home service, while also unlocking operational efficiencies for Manchester Airports Group by reducing the amount of baggage processed in the terminal.

Amsterdam Airport Schiphol

Amsterdam Airport Schiphol has completed the roll-out of its own network for Internet of Things applications. The network offers coverage in all public areas, and thanks to its greater range and reduced power consumption, compared to wi-fi, it is ideally suited to connecting with smart sensors and sending data over long distances. The sensors connect facilities and infrastructure at Schiphol to the internet, while the information from these sensors provides the airport with real-time insights. The first Internet of Things application at Schiphol involves the option for passengers to share real-time feedback regarding their experiences of the toilet facilities. Over 550,000 responses were received in September 2019. The real-time information enables the airport’s cleaning contractors to take proactive action to remedy malfunctions or untidy conditions.

Pulkovo St. Petersburg Airport

Starting October 1, 2019, Pulkovo St. Petersburg Airport will serve tourists from 53 countries entering the Russian Federation with free electronic visas. St. Petersburg Airport took all the necessary technical and organisational measures. The equipment of the border control facilities passed the testing. Travellers heading to the cultural capital of Russia for tourist, business or humanitarian reasons can apply online for a free visa. The application can be made no later than 4 and no earlier than 20 days before the expected date of entry. Visitors will be able to stay in Russia for 8 days out of the 30-day validity period. Application for electronic visas is available on the information portal of the Ministry of Foreign Affairs of the Russian Federation, starting October 1, 2019.

Knock-Ireland West Airport

Ireland West Airport (Knock) has officially opened its new runway following a €11 million refurbishment designed and project managed by Atkins, a member of the SNC-Lavalin Group. The 2,400m runway – which is the third longest in the country – handles all flights at Ireland West Airport and is central to the airport’s vision to attract one million passengers per year. This is the first time in its 34-year history that the runway has had a full overlay, including taxiways, and an upgrade of the instrumentation landing systems. The four-month refurbishment works took place overnight during non-operational hours to minimise disruption and enable the airport to function normally during the day.

- +1.4%
  - IN SEPTEMBER 2019, 6.5 MILLION PASSENGERS TRAVELLED TO, FROM OR VIA AMSTERDAM AIRPORT SCHIPHOL. THIS IS AN INCREASE OF 1.4% YEAR-ON-YEAR.

- +6%
  - MANCHESTER AIRPORT HANDLED OVER 3.3 MILLION PASSENGERS IN AUGUST 2019 – A 6% INCREASE ON THE SAME MONTH LAST YEAR.

- +8.1%
  - PULKOVO ST. PETERSBURG AIRPORT WELCOMED OVER 15 MILLION PASSENGERS IN THE FIRST NINE MONTHS OF 2019 – A RISE OF 8.1% COMPARED WITH THE SAME PERIOD LAST YEAR.

- +4.8%
  - TOTAL PASSENGERS THROUGH IRELAND WEST AIRPORT (KNOCK) IN THE FIRST HALF OF 2019 WERE OVER 355,000, REPRESENTING YEAR-ON-YEAR GROWTH OF 4.8%.
Tourism is a key driver in diversifying the UAE economy. The travel and tourism sector accounts for over 11% of the nation’s GDP, according to the World Travel & Tourism Council, contributing AED164.7 billion (€41bn) in 2018.

Abu Dhabi attracted more than 10 million international visitors last year as the emirate beat the favourites to be named ‘Best Destination – Middle East’ at the Travel Weekly Asia Readers’ Choice Awards 2019, having invested heavily in a wealth of cultural, high-end leisure and entertainment attractions. The Louvre Abu Dhabi, Sheikh Zayed Grand Mosque, and Ferrari World are just a few of its major draws. Abu Dhabi Airports is, of course, a key stakeholder in the drive to elevate the emirate’s burgeoning tourism sector still further.

Abu Dhabi International Airport handled 22.3 million passengers in 2018 and is investing to facilitate future growth, with the $3 billion (€2.7bn) Midfield Terminal Building almost complete.

Leading Abu Dhabi Airports’ continued development is Bryan Thompson, who took the helm as CEO in August 2018. His 20-year airport career includes roles at Dubai Airports, Australia Pacific Airports Corporation, Melbourne Airport, GVK (Mumbai International Airport), and Airports Company South Africa.

“I’m extremely fortunate to have enjoyed a very diverse career in the aviation industry, taking in everything from being a pilot, to an air traffic controller, an engineer and even managing rescue services and fire response,” he begins. “So, it’s fair to say that my diverse experience makes a real difference in managing all facets of the complex environment of a modern airport.”

Having worked in most corners of the world helps too – the UAE is a multicultural nation of over 200 nationalities.

“At Abu Dhabi Airports itself we have 80 nationalities, and this people asset really is a huge strength from which we have forged a truly great team including some exceptional leaders, all of whom I love working with.”

Multi-stakeholder “Abu Dhabi Inc” drives tourism

Thompson says Abu Dhabi Airports, together with the Department of Culture and Tourism, the Department of Transport, Etihad, and other organisations connected with Abu Dhabi’s tourism offering, "redefining travel and reinforcing Abu Dhabi’s position as a global hub"
are all stakeholders in 'Abu Dhabi Inc'.
"Together we work out how to make Abu Dhabi even more attractive, and more accessible, to visitors, such as stopover programmes, and transit visas that allow travellers to leave the airport and enjoy the city and emirate."

As a hub for Etihad, Abu Dhabi International Airport has seen changes with the airline’s restructuring and review of its priorities, and he says that restructuring is really bearing fruit. "Load factors at Etihad are now among the highest in the region – they are flying full aircraft, which is great for sustainability, and a sure sign of how strong Etihad’s reputation is with flyers," says Thompson.

‘Air Arabia Abu Dhabi’ – AUH’s first low-cost carrier

Just last month, in October 2019, Abu Dhabi’s Etihad Aviation Group and Sharjah-based Air Arabia announced the launch of ‘Air Arabia Abu Dhabi’. The UAE capital’s first low-cost carrier will cater to the growing budget travel market, while strengthening connectivity at the airport.

"I think it’s fair to say that Etihad has always been very measured in how routes are selected, so adding a low-cost carrier opens up a huge number of new route possibilities, which will greatly expand choice and further establish Abu Dhabi as a next-generation hub," says Thompson.

Meanwhile, this year the airport has welcomed new routes to Delhi and Mumbai with IndiGo, Salam (Oman) with Salam Air, and Kathmandu with Himalaya Airlines, as well as a Jazeera Airways service from the emirate’s other significant airport – Al Ain – to Kuwait City.

Midfield Terminal: a ‘destination airport’ in its own right

Abu Dhabi prides itself on offering a truly authentic experience, where traditional culture meets the best of the modern world. For millions of travellers, the new Midfield Terminal Building will be the place where they first enjoy this authentic experience of true Arabian hospitality.

Construction is more than 96% complete, with operational readiness trials well underway. "Once the Midfield Terminal opens, it will be a stunning ‘destination airport’ in its own right and a unique selling point for airlines considering us for future operations," says Thompson.

Explaining the "seamless travel experience" which permeates both the new

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BRYAN THOMPSON
CURRICULUM VITAE

Bryan Thompson was appointed CEO of Abu Dhabi Airports in August 2018. He is an Australian/South African aviation professional with more than 25 years of international experience in various areas of airport management and operations.

Previous experience:

- **2015-2018**: Senior Vice President – Development, Dubai Airports
- **2010-2014**: Key executive roles at the Australia Pacific Airports Corporation (APAC), including CEO of Launceston Airport; GM Strategy, Planning and Development, APAC; and GM Assets and Infrastructure Planning, Melbourne Airport
- **2007-2010**: Director of Airport Operations and VP Terminal Management, Mumbai International Airport
- **Previous**: Airports Company South Africa (O.R. Tambo International Airport, Johannesburg), University of South Africa (MBA)
building, and the airport in entirety, Thompson says: "We are constantly introducing new facilities and enhancing our infrastructure to provide the highest standard of operational efficiency for our passenger and airline customers." This includes US Customs and Border Control Pre-clearance facilities for Etihad passengers, and a smart travel system including self-check-in, self-bag drop, e-registration, e-border gates, and self-boarding facilities. Thompson emphasises that experience will be the same for all travellers at the Midfield Terminal, regardless of who they are flying with.

"I can say we are in what I like to call the 'Last Mile' in delivering the Midfield Terminal," says Thompson. "If you look at Abu Dhabi’s accomplishments in recent years – the Louvre, the Sheikh Zayed Grand Mosque, Ferrari World – these are world-class attractions. The new terminal, one of the region’s largest airport infrastructure projects, will be in the same league. Quite simply, we are redefining travel and reinforcing Abu Dhabi’s position as a global hub for business and leisure travel."

The new terminal is designed to handle over 8,500 people per hour and will increase the airport’s capacity by up to 45 million passengers per year. To deliver this throughput, the facility will include 65 contact and 14 remote stands, 49 gates, 106 boarding bridges, 154 check-in counters, 44 self-check-in counters, and 10 baggage reclaims, with the baggage handling system processing almost 500,000 bags daily.

Harnessing big data and Artificial Intelligence

Technology is vitally important for Abu Dhabi International Airport, with a digital transformation taking place to streamline the business and make it more efficient.

"One thing I am very excited about is how we are harnessing big data and Artificial Intelligence (AI) to relieve anxious passengers on tight connecting flights," says Thompson. "Through AI, the approaching aircraft will be allocated by air traffic control to ensure the shortest possible physical journey between planes for transiting passengers."

The airport is also trialling autonomous wheelchairs in partnership with Etihad that will allow passengers with restricted mobility to navigate more easily through the terminals.

"With technology, as with the overall design, we have been careful to consider the human element in every aspect of the airport concept," Thompson explains. "Just as we don’t want travellers to feel dwarfed by the airport, we don’t want them to feel that technology has pushed out the essential human touches that are needed to feel welcome and reassured."

Midfield Terminal Building: an intuitive passenger journey

The Midfield Terminal Building is based on an intuitive journey from entrance to gate. "The sightlines are great, and the route is very natural," says Thompson. "But, in such a massive building, it’s not so much the latest trends that are important – we’ve applied classic design principles to ensure the building is relatable and not overwhelming. When you have 180 metres between pillars, and a roof more than 50 metres above your head, scale becomes a real concern, and we’ve worked incredibly hard to ensure the terminal doesn’t overwhelm or disorientate, but instead feels in-scale and comfortable."

The building is also designed to be future-proof with the shell of the superstructure expected to have an operational life of 100 years or more, while the interior substructure is modular, and easily moved, adjusted or even replaced when necessary.

"When you look at tech-based facilities – tech today will have an operational lifespan of three to five years, and just a year in some cases. It is essential that a modern building can easily manage this level of replacement activity and upgrade, and the Midfield Terminal Building has that flexibility built in from the start."

Thompson says that the importance of commercial and retail revenues differs from other airports: "We are more dependent on non-aeronautical revenue than aeronautical. We have deliberately chosen that model specifically to ensure we are as attractive a destination as possible for airlines – and, by extension, a first-class airport for passengers – of all classes – throughout the UAE."
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Abu Dhabi Airports Free Zone is now one of the fastest-growing in the region and is absolutely at the heart of Abu Dhabi Airports’ plans to grow and further position itself as an essential, high-tech logistics hub.

“Essentially, the whole airport and its environs are one big free zone, with different business parks offering different solutions to local and global businesses,” explains Thompson. “The next phase of the flagship Al Falah District will further our goal of providing a one-stop shop for everything from manufacturing to logistics to cold chain solutions, and in sectors from aerospace to pharmaceuticals.”

“A true global tourism destination”

Abu Dhabi Airports is hosting this year’s ACI Airport Exchange, 25-27 November, where delegates will enjoy an “authentic experience of true Arabian hospitality first-hand”.

Looking ahead, the priority is quite simply to begin operations in the new Midfield Terminal Building. “When that’s done, we can leverage everything Abu Dhabi has to offer, in terms of being a true global tourism destination. I’ve touched on the Louvre before, but there’s so much to do in exploring the culture and heritage of the emirate, and beautiful desert wilderness around the lush Liwa Oasis. And, of course, I’m hoping delegates can stay on a few more days and soak up the atmosphere at the Abu Dhabi F1 Grand Prix – a real high-point in the global motorsports calendar.”

In June 2019, IndiGo, India’s largest airline, launched two daily services from Delhi and Mumbai to Abu Dhabi. “This enhanced connectivity reflects the strong connection between the UAE and India in a variety of areas including commerce and tourism,” says Bryan Thompson, CEO Abu Dhabi Airports.

Abu Dhabi Airports Free Zone high-tech logistics hub

Abu Dhabi Airports Free Zone is now one of the fastest-growing in the region and is absolutely at the heart of Abu Dhabi Airports’ plans to grow and further position itself as an essential, high-tech logistics hub.

In 2018, Abu Dhabi Airports increased its recycling rate by 8%, reduced its energy consumption by 19%, and its water consumption by 71%, compared with 2017 levels.

Sustainability based on Sheikh Zayed’s teachings

Sustainability is a cornerstone of Abu Dhabi Airports’ corporate values, drawn from the teachings of the late Sheikh Zayed, the founding father of the United Arab Emirates, and an area of operations in which the company continuously strives to improve.

“We are passionate about ensuring our business is sustainable and reducing our impact on the environment through the implementation of a range of internal programmes and initiatives,” says Thompson.

Indeed, Abu Dhabi International Airport is accredited at Level 3 Optimisation of ACI’s Airport Carbon Accreditation. “In addition to that achievement, in 2017, Abu Dhabi Airports was the first airports group in the region to sign up to the global sustainability initiative ‘The Airports Sustainability Declaration’.”

In 2018, Abu Dhabi Airports increased its recycling rate by 8%, reduced its energy consumption by 19%, and its water consumption by 71%, compared with 2017 levels.

The Midfield Terminal will feature an array of retail and food and beverage offerings, spread across 23,000 square metres. “That puts it in the same league as some of the malls we see in the region – and we believe is a key factor in persuading residents in all emirates to see Abu Dhabi as a viable first choice of airport; not just those living in the capital.”

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AIRPORT CAPACITY

ACI EUROPE has recently updated its Position Paper on Airport Capacity that lays out how airports can best achieve improvements in the use of available capacity within the airport system. In addition, to help airports develop an integrated response to the capacity situation, which is facilitated by the establishment of Airport Operations Centres (APOC), ACI EUROPE has launched a new service – the APOC Peer Review programme.

Report by Aidan Flanagan.

Providing adequate airport capacity to accommodate growth in a sustainable way and to optimise the passenger experience

Capacity is a word that is on the lips of pretty much everyone in the aviation industry these days. With the 2018 EUROCONTROL Challenges of Growth study forecasting a growth in demand of at least 53% by 2040 versus 2017 levels, it is expected that 8% of the total demand in 2040 will go unmet – equating to 160 million passengers. It is further expected that at least 16 European airports will be operating at or near full capacity by 2040, up from six in summer 2016. These figures show that a capacity crunch is already underway and is set to get dramatically worse unless appropriate action is taken.

There are many factors which influence airport capacity, and in order for the full picture to be seen, and the right measures identified to improve capacity, a holistic view is required. This means considering the various drivers of capacity, such as the airspace, runway, apron, stands, terminal and terminal access. Each may be optimised, but in order to have the desired effect the impact of optimising one part of the mix on the ability of other areas to deliver required capacity must always be considered. This is the case for optimising existing capacity, unlocking latent capacity, and ensuring resilience in cases of disruption to operations.

Measures which can be taken include physical infrastructure development, technology deployment for both ATM and surface management, procedures such as RECAT-EU and time-based separation, the slot allocation process, and many others. The exact mix of measures which an
Airport may take to enhance its capacity depends on its own situation and relations with other stakeholders, particularly the ANSP. The newly-updated ACI EUROPE Capacity Position Paper (available at www.aci-europe.org) explores in further detail how this may be achieved, and argues that a key element to identifying the best cocktail of capacity measures is integrated operations.

Collaboration, coordination and consolidation between the airport stakeholders ensures clear lines of communication, a common view on how capacity is being utilised and where it may be available, and optimises the speed of recovery after contingencies. An integrated view of the real-time and predicted situation at an airport, established through an Airport Operations Centre (APOC), gives clarity over the capacity situation, expected shortfalls during the day, and enables a coordinated response in order to overcome contingencies and re-establish ‘normal’ operations.

APOC Peer Review programme: New service for ACI EUROPE’s members

In order to aid airports in developing such integration, ACI EUROPE is launching a new service to its members, namely an APOC Peer Review programme. This service will allow airports to request that, for a fee, a team of experts visit their APOC and give feedback on how the APOC is working and ideas on how to further develop it. This team would include managers from other airports’ APOCs, who would provide a report reviewing the working of the APOC and sharing best practice on how the APOC can improve in order to ensure optimum capacity management. They will of course also benefit themselves from seeing how other airports have implemented their APOCs, making for a two-way sharing of expertise.

A pilot of the APOC Peer Review was conducted at Geneva Airport in October 2019, where a team from Brussels Airport, Groupe ADP, ACI EUROPE and EUROCONTROL spent three days meeting airport management, other stakeholders and receiving presentations on the experience of setting up and running the APOC.
An unprecedented number of aviation partners are joining forces to bring you the Digital Sky Challenge: a 48-hour innovation sprint aiming to create new digital technologies that will help meet the future needs of the European aviation system in terms of capacity, safety, efficiency, and environmental impact.

We are looking for new digital solutions in these 3 key areas:

**CHALLENGE 1: PASSENGER EXPERIENCE**
- How can we increase the reliability of flight delay information and improve the delivery of such information through better use of big data?
- How can you help passengers find their way in airports, helping them to follow the fastest way to reach their boarding gate?

**CHALLENGE 2: ENVIRONMENT**
- How big is the impact of extreme weather events on aircraft emissions and noise, looking at aircraft movements and data sources like weather and noise monitoring?
- How far does your green creativity go for a multimodal mobility tool that informs passengers about emissions caused by mobility choices they take?

**CHALLENGE 3: SAFETY**
- Based on safety data, can we determine how air traffic patterns influence the development of a safety incident?
- How can safety events be predicted considering both aircraft and external factors?

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September was a turbulent month for European aviation, some even called it a wretched month. With many factors contributing, including higher fuel prices and fierce competition, another four airlines had their wings clipped in September, following in the footsteps of Germania, flybmi and WOW air, that collapsed earlier this year. Thomas Cook, Adria Airways and two French carriers, Aigle Azur and XL Airways, were weeded out from the fast-consolidating airline landscape in Europe. Certainly, these bankruptcies mean tough times ahead for passengers, airlines and their employees, but on top of that they also rock the boat of the economic stability for those countries that relied largely on the connectivity they provided. For airports, it is not good news either. For some of them, restoring the lost links and coming back to full speed in terms of passenger traffic will take years.

**Operation Matterhorn**

Thomas Cook, one of Britain’s oldest companies, ran hotels, resorts and airlines for 19 million people a year in 16 countries. On 23 September, when the announcement struck that the company was forced to cease operations, the shockwaves that spun from it were unheard-of. It triggered the largest fallout in terms of passengers affected – half a million passengers stranded globally, requiring the largest peacetime repatriation effort in British history, the so-called ‘Operation Matterhorn’.

The collapse of the iconic travel brand has serious implications for air links from the UK, and the nations dependent on them. The worst hit by the carrier’s demise were small, regional airports. The lost connectivity will continue to hurt their business as they may not be so fortunate in rebuilding routes as their larger peers. In the UK alone, Newcastle, East Midlands and Cardiff are especially exposed. One in nine flights at the Welsh capital’s airport was operated by Thomas Cook this summer. That is a challenging proportion to replace, especially as much bigger airports – including Gatwick, Birmingham and Glasgow – will be soliciting surviving airlines to re-launch services next summer. That is before one considers the vast number of seats purchased by Thomas Cook for its customers on the flights of other carriers, who will now be seeking other ways to fill their aircraft, and even reassessing their route portfolios.

Beyond the UK, the outlook post-collapse of Thomas Cook is even more dire. In Greece, the total price of its bankruptcy for the country’s economy was estimated at €2.5 billion, or about 1.4% of the country’s gross domestic product. Faced with brutal consequences of the tour operator’s failure for its travel sector, the Spanish government urged the European Commission to allocate resources from the fund for globalisation to alleviate the fallout, since the company has left unpaid bills for €200 million to Spanish companies. The Spanish airport operator AENA went to the extent of exonerating airlines from paying airport charges for the additional passengers on the flights to remote destinations, such as the Canary Islands and the Balearic Islands, in a bid to cushion the hit on the overseas connectivity.

In reality, every overseas destination...
which had a connection to the company will suffer from Thomas Cook’s disappearance, but some will fare particularly badly: those where the tour operator catered for the majority of flights, or in some cases the only departures. While easyJet, Ryanair and other airlines are already working their way to take over the abandoned routes, it goes without saying that some links to smaller, more remote destinations will not be their top priority. There is also the question of the airline’s lucrative slots, which many airlines have been racing to purchase, with no guarantee that they will not be redirected to other routes. Some say that the effects of Thomas Cook’s failure will ripple through the aviation world for a long time.

Flag carrier goes bust

In the week following Thomas Cook’s demise, the troubled Slovenian flag carrier, Adria Airways, filed for insolvency and cancelled all flights. Its failure meant a massive loss in air connectivity for Slovenia and its main gateway, Ljubljana Jože Pučnik Airport. In the aftermath, two dozen countries, including key markets for tourists like Czech Republic, Spain, and Switzerland, have lost direct flight connections entirely. The airport has seen its passenger numbers decline -10.1% in September after the airline discontinued most of its operations on the 25th of the month, prior to declaring bankruptcy five days later. The latest reports point to up to -40% loss in the airport’s traffic in October.

While other carriers are expected to pick up Ljubljana’s traffic and routes, the airport will only be able to replace most of the former national carrier’s routes within a year and a half. It is a long and expensive process to convince other airlines to sustain the already established links. The carriers, as shown in the example of the failed negotiation with Lufthansa, will be in a luxury position to pick and choose the best slices of the late Adria’s connectivity. In the coming weeks, Swiss International Air Lines, Brussels Airlines and Lufthansa will introduce flights from Zurich, Brussels, Frankfurt and Munich to the Slovenian capital. Almost all airlines currently serving the Slovenian capital plan to increase their operations on the most profitable routes to the city this coming winter season, proving that a demise of one carrier can cater to other airlines’ befeef up schedules.

Adria’s collapse had many drivers, including tightening profit margins, dwindling investor confidence, fluctuating fuel prices and an overall weaker economy in Europe. However, the most poignant reason yet is the runaway airline consolidation across Europe, further boosting the dominant position of a handful of European carriers. The knock-on effect of having fewer players on the market is inevitably less competition for the airlines, leaving them more space to dictate the terms when dealing with Europe’s passengers and airports.

Au revoir Aigle Azur and XL Airways

The second-biggest airline in France, Aigle Azur, and the low-cost, long-haul XL Airways, that specialised in transatlantic connectivity from Paris, both went under in September. Aigle Azur filed for bankruptcy in the beginning of the month, and was put in receivership, but no viable takeover bids were placed, resulting in its liquidation. The route network of the carrier was of considerably smaller scale in comparison to Air France, but it still offered vital competition in certain areas. As the main airline connecting France to Algeria, its demise will free up an interesting chunk of the market for other carriers. With its sizable footprint in Paris Orly now up for grabs, the French business of Air France is likely to reap the benefits from the carrier’s disappearance. Conversely, the current void created by Aigle Azur’s collapse resulted in a major -9.4% slump in air traffic at Paris’ second-busiest airport.

The insolvency of XL Airways, filed on 23 September, had a limited impact on the connectivity of its main base, Charles de Gaulle Airport. However, operating a fleet of four aircraft on its 17 long-haul routes, the budget airline’s story is a scaled-down exemplification of the race to the bottom waged by Europe’s airlines. XL operated using a low-cost model, charging its passengers extremely low rates for one-way tickets and then adding fees for seat selection, meals and baggage on top. The fierce competition spearheaded by Norwegian, and the low-cost services developed and marketed by legacy carriers, such as Lufthansa and Air France, further undermined the carrier’s frail bottom line.

Airline consolidation will continue

The expanding European aviation market will inevitably experience more airline consolidation in the coming years, induced by tougher trading conditions, spikes in fuel cost and the potential impact of the Climate Emergency and its influence on the consumers’ choices and the policy landscape. With fewer, but more powerful carriers in the pool, the European aviation market will have less competition. While the ‘survival of the fittest’ is a sure-fire way to weed out the weak performers, the harmful side effects for passengers, airports and the economic health of countries should not be taken lightly.
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Self-connecting passengers – those that purchase two independent tickets on their own to reach a final destination that is not available via a direct flight with the objective of saving money – are growing rapidly and have become a new relevant segment for the aviation industry.

In the last 18 months, the self-connection market has incredibly gone up by 200%, representing €50-€70m. Given this tremendous growth and market value, airports, airlines and service providers are trying to adapt as fast as they can to meet the specific needs of the self-connecting passengers.

As reported in the 2nd edition of the ACI EUROPE Guidelines for Passenger Services at European Airports, some European airports already provide a self-connect service to make the airport process and the passenger experience much more seamless and pleasant: SEA launched ViaMilano in 2012, Gatwick Airport has put in place Gatwick Connects and Venice Airport offers VeniceConnects, to name but a few.

In order to better understand the impact and the potential of the self-connecting market for airports in particular, ACI EUROPE organised with ICF the 3rd Self-Connections Symposium on 8 November at ACI EUROPE’s offices in Brussels. Over 40 representatives from the airport and technology industries discussed the main developments brought by this market, such as the rapid dissemination of self-connecting concepts, the development of new baggage solutions and the urgent need to protect passengers (insurance) by guaranteeing their connecting flight. Nice Côte d’Azur Airport, Gatwick Airport, Venice Airport and Budapest Airport shared their experience in providing self-connections. From the technology companies, Kiwi.com, Dohop and Air Black Box explained the current and future trends of the self-connecting market.

The event also focused on the real benefits of the self-connect solution for airports. These include a considerable rise in passenger numbers, enhanced passenger experience and satisfaction, increased air service development, larger non-aeronautical revenues as well as additional ancillaries through insurance, brand partnerships and advertising.

As part of the 3rd Self-Connections Symposium, ACI EUROPE and ICF have conducted a brief survey about the self-connecting service, which has also been extended to the members of ACI EUROPE’s Facilitation and Customer Services Committee and Regional Airports’ Forum. The results will be analysed by the end of November 2019. More information will be provided in the Spring edition of Airport Business.

For further information, please contact Federico Bonaudi, Head of Facilitation, Parliamentary Affairs & Regional Airports at ACI EUROPE: federico.bonaudi@aci-europe.org
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On 2 October 2019, ACI EUROPE signed a cooperation agreement with the RE-Source Platform, the European alliance of stakeholders for corporate renewable energy sourcing. This partnership aims at accelerating the clean energy transition at Europe’s airports, helping them to reach Net Zero by 2050 for carbon emissions under their control. Report by Agata Lyznik.

Unlocking renewable energy procurement at Europe’s airports

Earlier this year, Europe’s airports raised the stakes of their climate action in the face of the growing Climate Emergency. As part of their call on all aviation industry stakeholders to chart a vision towards a net zero carbon air transport system, Europe’s airports committed to reach Net Zero carbon emissions from the sources under their control at the latest by 2050. This new bold commitment is aligned with the ambition of the newly designated European Commission, according to which Europe should become the first climate neutral continent in the world, thus responding to the latest climate science.

The commitment also carries a call on the European Union and national governments to accelerate the clean energy transition and facilitate airports’ access to zero emissions energy under competitive conditions.

ACI EUROPE, who shepherded the industry-wide character of this commitment, is determined to activate all the necessary partnerships to facilitate the achievement of this new ambition. Given the nature of emissions that can occur at the airport site, one of the key pieces of the Net Zero puzzle is full decarbonisation of the airports’ energy supply. Although the installation of renewable energy infrastructure such as photo-voltaic parks and wind turbines is definitely on the rise at airports, reaching 100% clean energy supply throughout the continent can only be achieved through key partnerships with the energy industry.

With this in mind, ACI EUROPE decided to join forces with the RE-Source Platform, the European alliance of stakeholders for corporate renewable energy sourcing, and signed the new partnership on the 2nd October 2019, at the annual RE-Source event taking place in Amsterdam. On its grounds, the European airport operators will be able to tap into the vast network connecting buyers and sellers of renewable energy and benefit from the latest tools and information to help them drive their transition to clean energy sourcing.

The RE-Source platform pools resources and coordinates activities to promote a better framework for corporate energy sourcing both at the EU and national levels. Founded by associations representing the European renewable energy sector – SolarPower Europe and WindEurope, RE100 (led by The Climate Group in partnership with CDP) and the World Business Council for Sustainable Development (WBCSD), RE-Source is focused on supporting the development and deployment of renewable energy sources by promoting new business models and improving policies & regulations.

The involvement of the airport industry in RE-Source is a win-win scenario, in which the weight of the continent’s airports’ economic force will add to the building momentum for corporate energy sourcing, which will help meeting Europe’s target to reach 32% of its energy from renewables by 2030 and in turn empower airports to deliver on their Net Zero commitment.
On 6 November 2019, ACI EUROPE joined forces with Airlines for Europe (A4E), European Business Aviation Association (EBAA), European Travel Commission (ETC) and European Regions Airline Association (ERA) to organise the first EU Aviation Night at the European Parliament. The event was hosted by Members of the European Parliament, Jan-Christoph Oetjen (Renew Europe), Marian-Jean Marinescu (European People’s Party) and Bogusław Liberadzki (Socialists & Democrats).

The evening kicked off with short interventions from the hosting MEPs, followed by an interactive Q&A moderated by Sam Morgan from Euractiv. Three topmen of the European aviation industry were interviewed live on stage, including: Willie Walsh, Chief Executive of International Airlines Group, representing A4E; Juergen Wiese, Chairman of the Board of Governors of EBAA & Head of BMW Flight Services and, last but not least, Jost Lammers, ACI EUROPE President, outgoing Chief Executive of International Airlines Group.

Jan-Christoph Oetjen, Member of the European Parliament (Renew Europe); Chris Gadsden, Head of Policy, easyJet; Sabine Hornig, Representative of the Board - European Affairs, DFS Deutsche Flugsicherung GmbH; and Marian-Jean Marinescu, Member of the European Parliament (European People’s Party).

By Agata Lyznik

Menno van der Kamp, Manager European Affairs, Lufthansa Group; Steffen Weiss, Manager European Affairs, Munich Airport; Joerg Meinke, Head of EU Liaison Office, Lufthansa Group; and Vanessa Haumberger, Vice President Political Affairs, Munich Airport.

Elisabeth Kotthaus, Head of Unit DG MOVE, European Commission; Morgan Faulken, Deputy Director General, ACI EUROPE; and Olivier Jankovec, Director General, ACI EUROPE.

Elisabeth Kotthaus, Head of Unit DG MOVE, European Commission; Morgan Faulken, Deputy Director General, ACI EUROPE; and Olivier Jankovec, Director General, ACI EUROPE.
Executive of Budapest Airport and incoming President & CEO of Munich Airport.

The 130 top industry stakeholders in attendance, including Members of the European Parliament, transport attaches to the Permanent Representations of Member States to the European Union, representatives from the European Commission, EUROCONTROL, EASA, SESAR Joint Undertaking and other European aviation associations listened in as the three speakers outlined the industry’s hard work to reach their ambitious Climate goals, hailed the importance of connectivity for the cohesion among Europe’s regions and repeated calls for the complete overhaul of the Air Traffic Management system. The three leaders agreed that in order for the industry to align with the goals set out by the Paris Agreement, the industry needs massive investment in Sustainable Aviation Fuels, access to renewable energy, electrification and new technologies, instead of punitive measures, such as taxation.

Thomas Reynaert, Managing Director, Airlines for Europe; Sylviane Lust, Director General, AIRE; and Koen Vermeir, AIRE.

Eduardo Santander, Executive Director, European Travel Commission; Juergen Wiese, Chairman of the Board of Governors of EAMA, Head of BMW Flight Services; Jost Lammers, ACI EUROPE President and outgoing CEO of Budapest Airport & incoming President & CEO of Munich Airport; Montserrat Barriga-Andrés, Director General, European Regions Airline Association; Boguslaw Liberadzki, Member of the European Parliament (Progressive Alliance of Socialists and Democrats); Marian-Jean Marinescu, Member of the European Parliament (European People’s Party); Willie Walsh, CEO of International Airlines Group and Member of the A4E Steering Board; and Jan-Christoph Oetjen, Member of the European Parliament (Renew Europe).

Jost Lammers, ACI EUROPE President and outgoing CEO of Budapest Airport & incoming President & CEO of Munich Airport.

Enrico Parini, Brussels Representative, ENAV; Johnny Pring, Manager European Policy and Advocacy, CANSO Europe; and Triona Keaveney, Senior Communications Officer, SESAR Joint Undertaking.

Agota Ollos, Manager Regulatory Affairs, European Regions Airline Association; Margit Markus Moossen, Counsellor, Permanent Representation of Estonia to the EU; Susanne Pillath, Counsellor, Permanent Representation of the Federal Republic of Germany to the EU; Ina Miskulin, Transport Attaché, Permanent Representation of Croatia to the EU; and Mario Saric, Counsellor for Transport Affairs, Permanent Representation of Sweden to the EU.

Boguslaw Liberadzki, Member of the European Parliament (Progressive Alliance of Socialists and Democrats), and Filip Cornello, Director for Aviation, European Commission.
Aviation Security: Leading from the Front

2nd ACI EUROPE Security Summit, Tel Aviv, 17-19 September 2019

The 2nd ACI EUROPE Security Summit, hosted by Israel Airports Authority, took place in Tel Aviv on 17-19 September 2019. The theme of this year’s event was Aviation Security: Leading from the Front – “It’s not enough to be up to date, you have to be up to tomorrow” (David Ben-Gurion, First Prime Minister of Israel).

This year’s conference brought together representatives from the European Commission, US Transportation Security Administration, the Israeli authorities, and experts from the airport community, airlines and security stakeholders including a wide range of technology manufacturers and security service providers.

Photos by Sivan Farag

Olivier Jankovec, Director General, ACI EUROPE: “The Commission has started working on an Aviation Security Strategy for the Future. This project must be part of its priorities for the coming years. It should include a strong drive on developing and financing innovation capabilities. It should also involve the development of a European Trusted Air Passenger programme similar to what the US has been doing for many years. ACI EUROPE is ready and willing to assist.”

Shmuel Zakay, Managing Director, Ben Gurion International Airport, delivered the welcome address from Israel Airports Authority.

Stacey Fitzmaurice, Executive Assistant Administrator for Operations Support, Transportation Security Administration, delivered a keynote address on the TSA Aviation Security Strategy and future initiatives.

Carlos Mestre Zamarreño, Head of Unit, European Commission, gave a keynote address covering, inter alia, how the threat is evolving and changing, and how the EU Aviation Security Strategy is developing.

Israel Airports Authority hosted a Welcome Reception at Haiku Sky Bar, overlooking the magnificent Tel Aviv coastline and city.

The Gala Dinner, hosted by Israel Airports Authority, took place in the Urban Garden, a spectacular outside event venue located in central Tel Aviv. It was an immersive experience that awakened the senses.
In his keynote address, Ilan Hartman, Deputy Head of Security, El Al Israeli Airlines, explained that the airline’s vision is “to be a national, innovative and integrated leader in the field of aviation security, giving Israeli aviation maximum commercial freedom worldwide.”

Colonel Omer Bar-Lev, former commander of Israeli special forces, and former leader on security issues in the Knesset, delivered the Grand Finalé: “40 years after I took part in the Entebbe Raid, in what ways do I believe we can reduce the cycle of violence which has made aviation a central target of the terrorists?”

The First Working Session: “What are the present threats to aviation security? What are the latest solutions?” was chaired by David Trembaczkowski-Ryder, Head of Aviation Security, ACI EUROPE, with speakers including Laurent Muschel, Director Security, European Commission; Illy Gruber, VP Marketing, Percepto; and Dov Weinberg, Director of Security Technologies, Israel Airports Authority.

The Second Working Session: “What about the human? Why machines will never replace people in aviation security” was chaired by Johnnie Müller, Security Director, Copenhagen Airports and Chairman of the ACI World Security Standing Committee. Speakers included Ronald Engels, Director Aviation, G4S; David BaMaung, Director of Strategic Development, CAMOR; Yanik Sterchi, Research Scientist, University of Applied Sciences and Arts Northwestern Switzerland (FHNW), Center for Adaptive Security Research and Applications (CASRA); Richard Thompson, Market Head UK, Ireland & Israel, Sales, Smiths Detection; and Stacey Peel, Global Aviation Security Lead, Arup.

The Third Working Session: “Protecting the landside environment” was chaired by Wilfried Covent, Senior Security Expert, Brussels Airport and Immediate Past Chair, ACI EUROPE Security Committee. Speakers included Rami Nir, Director Security Division, Israel Airports Authority; Peter Nilsson, Head of Airpol; James Cowen, Security Risk & Intelligence Advisor, Heathrow Airport; and Pini Schiff, former Director of the Security Division at Ben Gurion Airport, currently CEO of the Israel Security Companies Association.

The Fourth Working Session focused on “The need for a more joined-up approach between airport security and the threat of cyber-attack”. The chair was Dr John McCarthy, Senior Adviser CyberSecurity, ServiceTec. Speakers included Roee Laufer, Division Head, Cyber and Information Security, Israel Airports Authority; Eynav Haim Sayag, Head of Technologies, R&D Cyber Technology Unit, Israel National Cyber Directorate; Eric Vautier, Group CISO, Groupe ADP; Davy Van Hyfte, Head of Airport Certification and Compliance Unit, Brussels Airport Company; Laurent Gerardin, Chief of Sectorial Coordination Division, Strategy Department, ANSSI; and Roy Dagan, co-founder and CEO, SecuriThings.

The Fifth Working Session: “Checkpoint for the 21st century” was chaired by José Luis Nieto Garrido, Head of Airport Security, AENA, and Vice-Chair, ACI EUROPE Security Committee. Speakers included Amir Beeri, CEO SeemPulse; Juan Manuel Segura, Director of Product Innovation, Securiport; Billy Shallow, Manager, Smart Security, ACI World; and Bart Mos, Senior Security Advisor, Amsterdam Airport Schiphol.

Colonel Omer Bar-Lev, former commander of Israeli special forces, and former leader on security issues in the Knesset, delivered the Grand Finalé: “40 years after I took part in the Entebbe Raid, in what ways do I believe we can reduce the cycle of violence which has made aviation a central target of the terrorists?”

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Over the past 5 years, European airports have secured €189m of European funding with the support of the SESAR Related Deployment Airport Grouping (SDAG).

- **18** Number of European airports involved in 8 Actions coordinated by SESAR Deployment Manager and supported by SDAG
- **11** Number of European countries involved
- **89** Number of Airport Implementation Projects
  - 17 where Airports are Contributors
  - 72 where Airports are Leaders

- **37** out of the **115** Completed Implementation Projects to date (from 2014 to now) have been participated by Airports
- **36** Completed Implementation Projects in which Airports are Leaders
- **1** Completed Implementation Projects in which Airports are Contributors

- **32%** of the Pilot Common Projects* that have been implemented (2014-2019) under the SESAR Deployment Manager coordination with SDAG support are Airport Implementation Projects.

The Pilot Common Projects aim to deploy new technologies and operational concepts, developed within the SESAR Research & Innovation, in a timely, coordinated and synchronized way across Europe in order to improve the performance of the European ATM system and strengthen its sustainability. The projects focus on the improvements of air traffic sequencing, runway safety and throughput, airspace use as well as enhanced information sharing among all the stakeholders in the European aviation network.

Get in touch with SDAG (part of ACI EUROPE) to know more about the funding opportunities available for your airport:

luc.laveyne@aci-europe.org
barbora.smolikova@airportgrouping.org
Nice, Hamburg and Budapest. Three European airports with very distinct operational characteristics and challenges. But over the last three years, these three airports have acted as demonstrator sites to showcase the potential of tech solutions developed within the framework of the SESAR research and innovation programme. In this article, Steffen Loth, Project Manager of Integrated Airport Operations, a SESAR Joint Undertaking very-large scale demonstration, explains how this can pave the way for the implementation of solutions capable of improving airside operations at airports in Europe.

Real-time planning for more punctual and efficient airport operations

Airports are not only vital nodes in the air traffic management (ATM) system, they are also catalysts for change. This can be seen through the research and development activities carried out at airports, big and small, across Europe over the last decade in the SESAR research and innovation programme. Airports are showing a real appetite to make use of the latest technologies available to improve the efficiency of their operations and, ultimately to provide their customers, both passengers and airlines, with a better service and experience. More efficient airport operations has a knock-on benefit for the overall air traffic management network, and ensures the mobility and regional connectivity across the continent.

The SESAR programme looks at what technologies can be developed for increased runway throughput, integrated surface management, airport safety nets, total airport management and remote towers. These technologies address not only the business and operational needs of large airports, but also those of medium and smaller airports, recognising the diversity of airports that make up Europe’s air transport network.

Putting the solutions to the test

To prove the applicability of these solutions and to encourage their early take-up, the SESAR Joint Undertaking and its partners put these solutions to the test in close to real operational environments in so-called very-large scale demonstrations. The Integrated Airport Operations (IAO) project is one of these demonstrations. In the last three years the international IAO team explored mature solutions for three areas of air traffic management at airports, organising large-scale demonstrations designed to support the tasks of tower and apron controllers as a means of ensuring greater efficiency:

Digital ‘taxing manager’

The first solution – automated assistance to controllers for surface movement planning and routing – comprises a route-planning tool that makes automated planning of aircraft routing available to apron and ground controllers. The system calculates ideal taxi routes for each aircraft, which it then proposes to the controllers, although the operator can change them at any time. It reacts continuously to changing circumstances and adjusts its planning accordingly. In addition to increasing efficiency by optimising routes, the aim is to improve the situational awareness of the controllers.

No congestion at departure

The second solution – pre-departure sequencing supported by route planning – builds on the optimised taxi routes and is intended to ensure that engines are started at the latest possible moment – thereby minimising the environmental impact. This is achieved by moving away from making general assumptions about taxi times to more precise values that are calculated for each individual surface movement, depending on the current traffic situation. In addition to more accurate departure planning, this approach improves fuel efficiency and reduces noise, as well as carbon dioxide emissions at the airport, as the engines only run for as long as necessary.

Enhanced safety nets

The third solution – airport safety nets for controllers – draws on available information to enable new ‘safety nets’ at airports. These new safety nets can alert air traffic controllers when traffic deviates from air traffic control (ATC) instructions or procedures, enabling prompt reactions. In addition, the system can help detect conflicting ATC clearances during runway operations.
Testing in live operations

The IAO team implemented the solutions at three different airports to see how they could be broadly applied despite significantly different local characteristics. Hamburg Airport, for instance, has a dependent, crossing runway system with short taxi times and limited routing alternatives. This differs from Nice Côte d’Azur Airport which has a dependent, but parallel runway system and a complex surface layout, where traffic congestion takes place daily during the peak season. Budapest Airport also has a system of dependent, parallel runways and a complex arrangement of taxiways, but the terminal located between the runways and a traffic distribution more even along the whole year.

Over the course of the project, the participating partners installed the infrastructure for on-site testing and connected the demonstrators to the operational airport systems. Doing so enabled access to live data from flight operations, such as the current traffic situation and the associated flight plans allowing for a very close-to-operational environment. All exercises were performed with local air traffic controllers as realistically as possible. Controllers were therefore able to provide their immediate impressions, feedback and assessments.

Michael Eggenschwiler, Chief Executive Officer of Hamburg Airport, welcomed the feedback and assessments. “We very much appreciate the fruitful collaboration we have had with the partners in the large-scale demonstration project. With the innovative developments for optimised surface movements, the partners were able to conduct research under realistic conditions in our ‘contingency room’. IAO was able to directly test systems in live operations together with our controllers.”

Anna Petrovai, Head of Aerodrome Control Unit at HungaroControl, confirms the performance of the system at Budapest and that it works according to expectations: “We have tested out the new solution from Indra, and we like what we see. Integrating more automatic alerts and functionality into the A-SMGCS helps air traffic controllers work more efficiently and allows more time to react in case of non-conformance or conflicting clearances.”

Christelle Pianetti, Head of the Airports, Towers and TMA unit at DSNA, the French Air Navigation Services Provider, emphasised the crucial contribution of this large-scale demonstration in order to bring more maturity to these innovative SESAR solutions: “This demonstration made clearer the operational benefits of the solutions in terms of predictability, safety and environment. Moreover, it enabled us to assess the adaptations needed for the given environment and its characteristics.”

Promising demonstrations for improved routing and individual planning

The IAO very large-scale demonstration is a major step forward for the implementation of innovative ATM solutions at airports. The innovations emerging from the SESAR research and innovation programme are showing their potential to support airports and the work of controllers. At the same time, the demonstration has thrown light on some prerequisites that need to be carefully considered before deployment. For instance, routing and planning as well as pre-departure sequencing essentially rely on highly accurate and up-to-date airport layout and flight information data but also on detailed knowledge of operational procedures. Safety nets need to be configured precisely to be accepted and future users have to be trained adequately.

The three solutions are among the ATM sub-functionalities outlined in the European Union’s Pilot Common Project (PCP), a European regulation binding the EU Member States and their operational stakeholders, including a number of airports, to deploy in a synchronised and timely manner the most essential SESAR operational improvements.

The final evaluation results are expected to be published in early 2020.

The partners

Indra Navia, the Norwegian branch of the global technology company Indra, in collaboration with the Hungarian air traffic control organisation HungaroControl, was responsible for the demonstration at Budapest Airport. The demonstration at Nice Côte d’Azur Airport was carried out by the French Air Navigation Services Provider DSNA (Direction des Services de la navigation aérienne), while the demonstration at Hamburg Airport was coordinated by the German Aerospace Center (DLR) and executed together with the Norwegian research institution SINTEF (Stiftelsen for industriell og teknisk forskning). DLR is responsible for overall coordination of the IAO project.

More information

www.iao-project.eu
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The new ICAO methodology for assessing and reporting runway surface conditions, known as the new Global Reporting Format (GRF) for Runway Surface Conditions, will be applicable on 5 November 2020. This implementation is expected to reduce the risk of runway excursions since the GRF improves the accuracy and timeliness of runway condition assessment and harmonises this information globally. Report by Christopher Keohan

Runway safety-related events, in particular runway excursions, are among the highest risk factors for aviation safety. Improving runway safety through risk mitigation is all the more important and ICAO aims to achieve this with the development of the Global Reporting Format (GRF) for runway surface conditions, a standardised methodology for assessing and reporting runway surface operations. As described in Aeronautical Information Circular (AIC) France A 19/19 (dated 3 Oct 2019), under the GRF the aerodrome operator evaluates the condition of the runway for each third of the runway and issues a Runway Condition Report (RCR). The report contains the Runway Condition Code (RWYCC) and information which describes the runway surface condition by providing the type of contamination, thickness, and coverage for each third of the runway. This code is derived from the Runway Condition Assessment Matrix (RCAM). The RWYCC will be used as input data for compiling landing distances. The RCR elements are transmitted to the pilots by the Air Traffic Services (ATS) by radio or ATIS. The Aeronautical Information Services (AIS) will dispatch the RCR through a new SNOWTAM format. Pilots use the RCR information to calculate landing performance with data provided by the aircraft manufacturer. After landing, they transmit a report of the braking efficiency (AIREP) to the ATS. The ATS then relays this AIREP to the aerodrome operator for possible new assessment.

Global initiatives related to the implementation of GRF included ICAO Provisions (e.g. Annex 14 - Aerodromes, Circular 355 - Assessment, Measurement and Reporting of Runway Surface Conditions, Doc 9981 - Aerodromes and Doc 10064 - Aeroplane Performance Manual), as well as the ongoing EASA Rulemaking Task on Runway Safety. It is crucial that all aviation stakeholders are well trained on the new ICAO methodology to ensure its smooth roll-out. That’s why ICAO and ACI organised a joint Symposium on Implementation of the New Global Reporting Format for Runway Surface Conditions, which was held from 26 to 28 March 2019. A total of 325 representatives participated in the Symposium, including many ACI members. The last session of the Symposium reviewed regional plans on conducting workshops to assist in implementation, which are of great use and interest to airports.

One such workshop has already been held, namely the Workshop on Implementation of the New Global Reporting Format (GRF) for Runway Surface Conditions in the ICAO EUR Region in Paris from 10 to 11 July 2019. A total of 98 experts from 29 States, 5 international organisations (ACI EUROPE, CANSO, EASA, IATA and ICAO), 1 airline and 1 industry participated in the workshop. One of the outcomes of this workshop was the creation of a GRF implementation check list to assist States in the ICAO EUR Region with implementation.

Further GRF workshops in the EUR Region are planned, including two with the assistance of ACI EUROPE. The first of these will be held on 10-11 December 2019 in Frankfurt, hosted by Fraport. The second will take place on 28-29 January 2020 in Helsinki, hosted by Finavia. These particular workshops will be tailored to the needs of airports, with the latter featuring a focus on the circumstances faced by Northern European airports. ACI EUROPE members are urged to take advantage of these workshops, so as to be prepared for timely implementation of the GRF, which is expected to reduce the risk of runway excursions and contribute to overall aerodrome safety.

Christopher Keohan is Regional Officer Meteorology at the ICAO EUR/NAT Office.
Digital identity systems are reshaping and transforming the global travel ecosystem. The synergistic collaboration between governments, airlines, airports and the tourism industry is enabling commercial solutions for unparalleled levels of service throughout airport ecosystems and beyond. Advancement of digital technology in Mobile ID, multi-border automated identification, home-to-home passenger authentication and on-the-move, paperless airport clearance is leading this transformation by exploring the full capability and capacity of collaborative digital identity networks.

Vision-Box is fully dedicated to its mission in the development of innovative seamless solutions to facilitate the traveler experience and advance biometric initiatives to promote the digital liberation of the traveller. One of the angular stones of digital liberation of the passenger experience is biometric identification. By easily and securely being able to digitally identify and authenticate travellers, service providers inside and outside the airport can leverage new business models to offer customers new services and incentives to build up trust in the technology.

Exemplifying this brave new world of digital travel is a cooperation agreement between the Aruba government, the World Tourism & Travel Council allowing Vision-Box to expand the OneID Happy Flow programme beyond the airport. Starting in 2020, an extended Seamless Traveler Journey pilot in Aruba will allow travellers to check in at participating hotels and one rent-a-car agency just using their face for identity authentication. The traveller’s digital identity is used to secure and shape an efficient travel experience that streamlines the passenger’s journey between hotel, car rental, arrivals and departures, under the hospices of a holistic orchestration platform which manages the flow and progress of each traveller.

Bangalore’s Kempegowda International Airport is another great example of where digital technology is at the forefront of the travel industry digital revolution. Vision-Box is the first company in India to deliver a fully biometric enabled airport with the Digi Yatra Airport Platform. The solution is core-managed by Orchestra, the award-winning Seamless Flow platform. Digi Yatra is an industry-led initiative in coordination with India’s Ministry of Civil Aviation that aims to improve air travel through the 4 key elements of Connected Passengers, Connected Airports, Connected Flying and Connected Systems.

The Digi Yatra passenger experience features biometric identification for a paperless and seamless curb-to-boarding clearance. Travellers seamlessly journey through entry point, check-in, baggage drop, security and aircraft boarding, simply using their face to clear their progress into the airport. The airport also features experience zones, where the traveller journey is augmented with reality apps on their mobile devices.

Making this transformation possible are digital networks based on smart touchpoints, biometric authentication, web-based services and IoT technology. The convenience and ease of use offered by these digital networks is sustained by an extremely accurate and secure process when interacting in official or commercial transactions with government, travel and private enterprise stakeholders. Whether crossing airports, booking hotels or renting vehicles, new digital technologies offer access to multi-dimensional services by government and private institutions simply through biometric authentication.

Underpinning the security of the digital identity is a Privacy-by-Design certified ecosystem that enhances individual data protection. Orchestra gives travellers the capacity to manage their personal biographic and biometric data in the multiple stakeholder environments. Data protection guidelines provide maximum protection and privacy while minimising the risk of personal data leakage. Biographic and biometric data is managed by a thoroughly audited and certified software platform designed for maximum protection of all personal data in compliance with legislations in force.
Exchanging best practice on airport charges regulation

The initial objective for the Thessaloniki Forum of Airport Charges Regulators, set out in 2014 by the European Commission, was to “help with the exchanges of best practices on airport charges regulation in the Member States”. Pepi Lykou from the Hellenic Civil Aviation Authority is rapporteur of a working group of the Thessaloniki Forum, and briefed Ross Falconer on its activities.

In May 2014, a European Commission communication on the Airport Charges Directive officially established the Thessaloniki Forum as a group to facilitate the exchange of best practice between independent supervisory authorities and to discuss findings on the application of the Airport Charges Directive. The Forum has had to recognise the variety of ways that member states have implemented the Directive.

The Forum meets regularly to discuss matters with a pan-EU angle, including EEA and Switzerland, concerning the common framework for regulating airport charges in the scope of the Directive 2009/12.

“For each thematic issue addressed – consultation, transparency, non-discrimination, Weighted Average Cost of Capital (WACC), market power assessments, selective criteria in the economic regulation of airports – the Forum submits a paper with recommendations to the European Commission,” explains Pepi Lykou from the Hellenic Civil Aviation Authority, who is also rapporteur of a working group of the Thessaloniki Forum. “It is also the place for regulators and industry to sit at the same table and exchange views that will underpin the proposals of the Forum. As a result, the recommendations embed national best practices that are recognised and endorsed by the plenary of the Forum, reinforced by the contributions of the associations representing the interests of the users.”

The difficulties in effective benchmarking

The Forum this year established a working group looking at the complex topic of benchmarking, which covers a divergent range of views and existing regulatory systems.

“The Forum recognises that there are difficulties in effective benchmarking in the airports sector related inter alia to the heterogeneity of EU airports, insufficient comparable data publicly and easily accessible, and differing national regulatory frameworks,” Lykou comments. “The central objective is to delineate the appropriateness of this tool in assessing an airport’s performance and the level of charges it applies against comparable airports, for regulatory issues.”

The same working group is looking at the topic of remedies that an authority can apply if an airport is found to have significant market power.

“Consultation, transparency, non-discrimination and cost-relatedness are in the interest of all parties,” says Lykou.

Consultation and transparency

The Forum has published papers on a range of topics in recent years, as ‘guidance’ to national authorities. Lykou highlights one example of this guidance being used: “an ever-growing convergence with the recommendations on consultation and transparency.”

There are many interpretations on what ‘consultation’ means, so can common ground be found? “As a common ground, endorsed by the Directive, consultation is a necessary advisory procedure, the results of which are not legally binding for the airport but are subject to a claim procedure submitted to an independent authority for examination,” says Lykou. “The enhanced transparency and in-depth analysis of the figures and the policies presented by an airport, as well as a clear analysis of the required traffic-wise contributions by airlines, delimit the qualitative value of each consultation.”

At times, both airports and airlines have alleged that the Forum is a ‘black box’ about which they have little insight and influence. In recent years, the Forum has frequently invited airports and airlines to participate, and Lykou describes it as an “open and transparent box.”

“It is the added value of all parties working together, which truly elicits the real and meaningful outcome of the Forum. As a metaphor, I would say that the Forum is rather like the Agora in ancient Athens where ideas from all stakeholders take roots and flourish.”

Lykou emphasises that the Thessaloniki Forum does not intend to push the regulation into either interventionist or hands-off directions. “It is a Forum for discussing common enforcement challenges and best practices among regulatory authorities. There has been no voice that has advocated quitting this process of putting regulatory issues on a common table and cultivating the contacts of connected interest groups.”

In the near term, the Forum will reflect on previous papers. Lykou notes that the next steps will be decided by the plenary, choosing those topics that require further analysis. “The views of the industry will be also taken into account when deciding on future papers.”
The Xovis PTS, that combines 3D sensors with software, is the full solution for passenger flow management. It meets the specific requirements of airports and provides a trustworthy source for data-driven decisions. People counts, queue length, waiting times, overflow, throughput and capacity are all important indicators that can be measured and visualized with Xovis PTS.

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HMSHost is a Gold Sponsor at this year's ACI Airport Exchange. Ahead of the event, Walter Seib, CEO HMSHost International, shared some thoughts with Ross Falconer.

‘Return on Attention’ for associates: the HMSHost approach to F&B for airports

The new Midfield Terminal is the pinnacle of Abu Dhabi Airport, iconic in the region, and aiming for excellence in airport design, size, architecture and technology. Indeed, it will be the focus of a ‘Deep Dive Session’ in the Airport Development & Sustainability Conference at this year’s ACI Airport Exchange.

HMSHost is Gold Sponsor of the Deep Dive session on the Midfield Terminal. “The session is unique because it gives the audience a 360-degree view of the development of an airport terminal by involving specialists from F&B, security, technology, and the airport itself,” explains Walter Seib, CEO HMSHost International. “Our goal is to share insights into the role of F&B in contributing to this distinctive global airport masterpiece. During my talk I hope to share some of the story behind how we choose the optimal mix of F&B stores for our airports, taking the audience by the hand to experience the customer journey – our ‘Return on Attention’, the essence of our approach to F&B for airports.”

HMSHost is bringing a mix of global performers and bespoke brands to the Midfield Terminal. “Most notably, we are excited to bring China’s InWe Tea, Australia’s Jones the Grocer, UK’s Comptoir Libanais, Italy’s Bottega, Indian favourite Masale, and our very own VIT to the Midfield Terminal, among others, giving an international flavour for our international travellers.”

As a global operator across more than 30 countries, HMSHost has comprehensive insight into F&B trends. “We can anticipate where trends are within their lifecycle and make strategic decisions on which micro trends to incorporate into our macro trends-based concepts,” says Seib.

The “guest journey” is central to this. Using its consumer segmentation approach, Tribes Study®, HMSHost analyses guest data and creates a selection of brands it feels best meets their needs. “We then use this same data to strategically position our stores for maximum relevancy to passenger flow,” Seib adds. “With this approach, we ensure that our presence at each airport is relevant and fresh, meeting not only the needs, but the interests, of our guests.”

Midfield Terminal: “an ideal canvas”

As an international operator, HMSHost’s presence in the Middle East, where it first entered the market in 2012, is strategic to its growth.

“The relationships we build with our partners are incredibly valuable to us,” Seib explains. “By building partnerships in which we not only listen to the needs of our stakeholders, but work together to reach mutual goals, we can position our concepts for success. This is even more so with our relationship with Abu Dhabi Airport, where we have worked together to realise their dream of success through innovation and development in their iconic structure – arguably one of the most prestigious projects in the region at this time – sharing our expertise on the passenger journey and supporting their vision. The Midfield Terminal gives us an ideal canvas upon which we can demonstrate our global strengths and expertise in setting up F&B operations in a greenfield airport, creating places to be for people on the move.”

HMSHost sees innovation as essential in meeting the needs of its guests and ensuring the business is as agile as possible. Alongside the Kiosk ordering system developed to solve bottlenecks at fast food stores, it recently partnered with an app in the Netherlands where guests can enjoy a fast-track service for F&B ordering.

“In many of our sit-down restaurants we offer innovative digital ordering and payment systems for our guests, and this is especially relevant in our presence in China where in-app ordering systems are a part of day-to-day life,” Seib comments. It is not only the front of house, or guest-focused, areas of the business that HMSHost is innovating in. In the Nordics it has partnered with an app that helps optimise and streamline refrigeration and quality processes.

Looking ahead, Seib explains that HMSHost plans to continue growing its footprint in high traffic areas including airports. “Part of this is in ensuring our guests receive the best service possible, and we see this as a key delivery from our cultural change movement: Return on Attention. By giving our associates, and business partners, the attention they deserve, we are creating places where people want to be – places where guests feel welcome, reinforcing our position as preferred partner for F&B operations.”
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Travellers experiencing the new Midfield Terminal Building at Abu Dhabi International Airport can look forward to a retail proposition that truly reflects the essence of Abu Dhabi – the combination of a rich heritage and an exciting modern future.

Lagardère Capital, a joint venture between Lagardère Travel Retail and Abu Dhabi Capital Group, was chosen by Abu Dhabi Airports as a core duty free operator at the Midfield Terminal. “We are extremely proud to have been selected to operate the major part of the core duty free,” says Vadim Motlik, CEO Lagardère Capital. “By combining Lagardère Travel Retail’s expertise with the local knowledge of our JV partner, Abu Dhabi Capital Group, we were able to create a unique proposal that stood out in one of the most competitive tenders in recent years. It demonstrates our capability to create world-class programmes that enable us to partner with the best airports in the world.”

Lagardère Capital has developed four new concept stores for Abu Dhabi’s Midfield Terminal, which will leverage on the spectacular architecture of the terminal and are designed to be highly impactful.

“In one of these concepts, we intend to bring together the best international and local fine food in a luxury travel retail environment,” Motlik explains. “We will organise tastings and expand on the regional flavours of locally-produced dates, nuts, dried fruits, coffee and baklava. The Art of Regional Fine Food section will feature local date brands – where consumers will find dates infused with citrus, pistachios or nuts, dates coated with chocolate, and basically every kind of date imaginable. In the Art of Coffee and Biscuits section, we will have a selection of leading specialists in the region to offer intoxicating premium coffee aromas with the likes of Arabica, Robusta, French Coffee, with single origin and premium unique blends. Other dedicated areas will showcase best-sellers such as chocolates and other fine foods.”

Passengers will also discover the latest product ranges of international spirits, wines and cigars with dedicated spaces for connoisseurs. The Collection room will focus on prestigious liquors, while The Cigar Cellar will showcase premium and limited-edition cigars. A tasting bar will allow consumers to discover the heritage of a selection of liquors, while a permanent brand zone will immerse clients into the prestigious world of whisky.

“Our other new concepts are also developed to ensure delivery of a world-class customer experience in all product categories,” says Motlik. “We will combine our international product expertise with exclusive local brand partnerships and the Emirati sense of hospitality. What is more, we have also developed a supermarket concept with amazing deals and surprisingly affordable gifting ideas.”

“ Bringing Abu Dhabi to the world “by creating the ultimate duty free experience”

An interview with Vadim Motlik, CEO of Lagardère Capital, the joint venture between Lagardère Travel Retail and Abu Dhabi Capital Group. By Ross Falconer
the new Midfield Terminal at Abu Dhabi International Airport aims to set a new standard of efficiency and passenger experience.

“SITA is proud to be a partner in supporting this new benchmark in air travel through the technology we provide, from automating the passenger journey, tracking baggage at every step and driving new efficiencies in how the airport operation is managed,” begins Roger Nakouzi, Vice President Sales, SITA.

The company worked closely with Abu Dhabi Airports to understand its requirements and ambitions. One of the major focus areas for SITA is to aid Abu Dhabi Airports in improving its operations by implementing advanced airport systems.

“This detailed process of consultation resulted in our strategic decision to deploy holistic technology that connects landside to airside operations, assisting airport managers and operators to measure real-time data and plan resources for across all operations of the airport,” Nakouzi explains. “We are installing SITA’s Airport Management System, which collates automated data and presents it in a single view for all stakeholders, as well as centrally managing the real-time allocation of key resources – whether it is allocating a gate to an arriving aircraft or ensuring the right team is in place to load baggage on a departing flight. We also provide flight information display systems and seamless baggage tracking systems.”

Supporting streamlined operations in Midfield Terminal

With passenger traffic expected to double in the next 20 years, the industry is firmly focused on accommodating this increase without compromising the experience provided to travellers.

“SITA is working with airlines, airports, border agencies and governments to deliver a better passenger experience,” says Nakouzi. Abu Dhabi International Airport recorded 4.5 million passengers in the summer months this year.

“SITA will continue to support Abu Dhabi Airports in streamlining operations in the Midfield Terminal by providing automated services in tracking baggage, on-screen flight displays and passenger touchpoints from check-in to boarding,” Nakouzi comments.

The Airport Management System Suite will help ensure that the airport is Airport Collaborative Decision-Making (ACDM) compliant. “SITA’s technology will collate business intelligence that will allow various stakeholders to quickly share information and make clear, informed decisions,” Nakouzi explains. “This will improve the overall efficiency of airport operations and the predictability of events, and in turn the passenger journey.”

Indeed, SITA has been a longstanding IT solutions provider to Abu Dhabi Airports and has frequently deployed advanced technology throughout its evolving operations. SITA has deployed baggage tracking systems to enable a seamless passenger journey throughout airport operations. The system accurately tracks bags and delivers them to passengers through efficient, improved luggage handling processes.

Airports are highly complex environments that require the close cooperation of all the stakeholders across the journey, including the airport, airlines, ground handlers and border control agencies.

Nakouzi adds that providing integrated solutions that allow these stakeholders to have the same, real-time view of the airport, and the ability to harness the power of data to make smarter, more intelligent decisions, is critical to ensuring the smooth operation of airports and airlines with real benefits for passengers. “This is exactly what we believe SITA will bring to Abu Dhabi International Airport. Our Airport Management Solution – a suite of integrated software applications designed to effectively manage airport operations from the terminal to the airfield – allows the airport to centrally manage everything from passenger processing and baggage handling to the real-time allocation of fundamental resources across the terminal.”
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Oman Airports investing to exceed expectations

An interview with Sheikh Aimen bin Ahmed Al Hosni, CEO Oman Airports. By Ross Falconer

Oman Airports has a strong presence at this year’s ACI Airport Exchange, where it is a Platinum Sponsor. Sheikh Aimen bin Ahmed Al Hosni, CEO Oman Airports, is participating in the Middle East Airport Leaders Masterclass at the event and is Vice-Chair of the ACI World Governing Board, as well as Secretary Treasurer of the ACI Asia-Pacific Regional Board.

“It’s certainly important to focus on developing Oman Airports and keep a close eye on this process,” he begins. “There are different ways to achieve what we aim for, such as focusing on increasing revenues, attracting airlines, and improving customer services. Absolutely technology is a very important tool to develop – we have been investing heavily in our new technologies and innovation approaches, in terms of our systems and processes, to make sure we meet and exceed expectations.”

Since opening its new terminal, Muscat International Airport has won numerous awards, including Best Airport in the Middle East 2019 at the 26th World Travel Awards Middle East in April. “There’s no success without hard work,” says Al Hosni. “We have been focusing lately on self-service aspects, where we aim to enhance the experience of all travellers and improve operational flow.” Indeed, projects include self-service kiosks and indoor navigation facilities for a smoother journey.

Oman Airports is also undertaking myriad initiatives to ensure efficient and effective safety and security processes. “Safely connecting passengers is our top priority and our duty,” Al Hosni explains. “We collaborate with the top airlines to deliver the best experience and implement the best practices. Our safety initiatives are always present in all areas of airport operation, such as manoeuvring areas, runway safety, FOD management, etc. We use the latest technologies to detect and record hazards including lasers, drones, and birdstrikes, as recording and reporting data is very important to reduce and eliminate recurrence.”

Additionally, Oman Airports has regular campaigns to raise safety awareness across different sectors, covering the airfields, terminals, maintenance and passenger safety, to name a few. “The management of Oman Airports ensures to make our airport safe for its staff and passengers,” Al Hosni emphasises.

Eco-friendly operation and strategies

Environmental sustainability is a key priority for Oman Airports, with both Muscat International Airport and Salalah Airport accredited at Level 2 Reduction of ACI’s Airport Carbon Accreditation. “Our goal is to be among the world’s most environmentally-friendly airports, in order to help reduce carbon emissions and save our beloved planet, as we truly acknowledge the aviation industry’s environmental impact,” says Al Hosni. “We, like many airports across the world, have adopted greener and eco-friendly elements into our operation, design and strategies. Importantly, we and our stakeholders have adopted a project to convert all fossil fuel use to electric. We are also creating a serious programme to save energy and reuse water in the air conditioning systems.”

Looking ahead, Muscat International Airport aims to redefine the passenger experience through state-of-the-art infrastructure and facilities, including spacious parking areas with a capacity of 4,500 spaces, high-range Wi-Fi across the passenger terminals, and prestigious lounges. These efforts are being undertaken as part of the Oman Airports Strategy 2020, which aims to position Muscat International Airport among the top 20 airports in the world by 2020.
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Delivering a fast, secure, seamless journey to travellers

An interview with Prof. Zhiqiang Chen from Tsinghua University, Chairman, President and Chief Executive Officer, NUCTECH. By Ross Falconer

The increasing demand for air travel and trade, an evolving threat landscape, and changing passenger expectations, are all contributing to a changing horizon for aviation security.

Blending innovative technologies, streamlined processes and advanced data analytics has the potential to transform aviation security, allowing for the delivery of enhanced security, improved operational efficiency, and better passenger experiences.

“With concerted efforts, we are ushering into a new era of aviation security,” says Prof. Zhiqiang Chen, Chairman, President and Chief Executive Officer, NUCTECH. “Myriad advanced technologies, such as Computed Tomography and millimetre wave, have gained increasing momentum in airports around the world. These innovative solutions open new possibilities for airports to strike a balance between security and efficiency.”

Significantly, while Computed Tomography (CT) technology is widely used to screen checked baggage, it is now starting to be incorporated into the security checkpoint.

“CT-enabled screening allows for the detection of threats concealed inside complicated electronic devices, or disguised as liquids,” Chen explains. “Thanks to that, passengers are no longer required to remove their computers, iPads, shampoos or perfumes from hand baggage. With less divestures and fewer trays required, the screening process has been greatly simplified and expedited, improving throughput and reducing queues.”

NUCTECH’s Kylin solution for cabin baggage screening utilises dual energy X-ray combined with Computed Tomography to enable the highest level of molecule and density analysis. Kylin received European Civil Aviation Conference (ECAC) EDS CB Standard C3 approval this spring, opening up significant potential for global expansion.

“The 3-dimensional imaging assists operators in their decision-making,” says Chen. “With richer information available via CT, operators are better assisted to tackle the long-held problem of overlapping and superimposition within bags. With the all-around views and 360-degree manoeuvrability, image analysis is taken to new heights, with more perception than ever before. With the help of automatic target recognition, the application of CT in baggage screening leads to quicker decision-making and sharper insights.”

A step-change in people screening

On the people security front, millimetre wave body scanners have gained traction around the world. Chen explains that they provide passengers with more dignity and comfort at checkpoints. “Contrary to pat-downs, millimetre wave body scanners are non-intrusive, 100% safe and secure.”
They can provide quick screening with high accuracy. With more AI-based algorithms coming, future scanners can be smart enough to allow travellers to keep their belts and jackets on, by omitting all the benign items on your body. The experience could be greatly improved for the passengers.”

Suspicious items are shown on the screen to alert operators for a targeted secondary search. Generic pictures are used to avoid the invasion of privacy. The latest solutions also allow passengers to go through screening in a more relaxed stance, without the need to raise their arms or turn around.

NUCTECH’s millimetre wave body scanner – MX1000AA – is approved by both ECAC and the Civil Aviation Administration of China (CAAC). “Opportunities are abundant within China and around the world,” says Chen. “For NUCTECH, our regulatory-compliant solution could deliver an enhanced passenger experience together with improved security. Because of that, our millimetre wave people screening systems have been well accepted by airports in China, Malaysia, Venezuela, Morocco, and Kazakhstan, for example.”

Meanwhile, real-time screening has significant potential for airports seeking higher throughput and better passenger experience. On the horizon for airports is Terahertz technology, which analyses signals emitted by the human body. “Being passive and secure, it poses no health risks of any kind,” Chen explains. “Terahertz scanners are also capable of covert or overt screening of people on the move. Embedded into walls or floors, security inspection could be implemented so seamlessly that passengers won’t even notice it. The unique strength of Terahertz may lead airport security into a more decentralised pattern. Instead of concentrating all the efforts on a single point, innovations like Terahertz enable airports to distribute the sensors to multiple areas, allowing for quick and frictionless screening before they proceed to the checkpoints. With the advanced inspection, passengers could be differentiated and subjected to targeted security measures at checkpoints, allowing for quick processing of passengers with a low risk level.”

NUCTECH has developed a body scanner utilising non-ionizing Terahertz technology – the TH800, allowing for real-time screening for concealed threats. “With some trial projects running within China, our Terahertz body scanner has undergone major improvements in terms of its detection capabilities and image quality,” Chen adds.

## Automated and Streamlined Operations

Streamlined processes can also play an important role in transforming security operations. Automated screening lanes could significantly improve passenger throughput by automating functions previously performed manually, allowing operators to provide more assistance to passengers. “Motorised conveyor belts draw and return bins automatically, while bins that trigger alarms are automatically diverted to a specific area so bags behind them continue their transition uninterrupted,” says Chen. “By integrating more sensors together, the process can be further streamlined. For example, blending shoe detection with people screening could achieve two goals with one move, alleviating congestion arising from the multi-tasking of the current checkpoint.”

## AI-Propelled Data Analytics

Beyond innovation in screening technologies and processes, there is also significant progression in data collection and analytics, particularly through Machine Learning and Artificial Intelligence (AI).

“AI is releasing the full potential of security sensors,” Chen comments. “Combined with Automated Target Recognition (ATR) algorithms, CT and millimetre wave body scanners can now detect an ever-expanding list of dangerous, prohibited and contraband items, ranging from explosives to narcotics, fire-arms, knives, lithium batteries and even packages of drugs or bundles of cash.”

ATR is constantly learning from past experiences to further improve its skill and adapt to new threats. Chen notes that it also opens up the door to more operational efficiencies. “It eliminates the need for passengers to remove electronics and liquids, and holds great promise to free travellers to divest keys, belts and jackets before stepping into body scanners. With ATR recognised more widely as a smart agent, we might see a future where passengers could proceed through checkpoints in a more seamless way, with operators making decisions faster and more accurately.”

Based upon extensive system information, AI can also introduce new capabilities to improve and optimise system operations. Preventative maintenance can take a large amount of information into actionable service schedules, maximising system uptime and optimising the system operations.

With the proliferation of data in checkpoints, security can only be achieved by physical and digital screening. Chen explains that the multiplexing network platform integrates the rich information from all possible sensor nodes, weaving them together to create a whole picture of the traveller.

“Further combined with information from outside sources, like CCTV footage, the Blacklist, AI could greatly enhance the situational awareness of the checkpoints. It enables checkpoints to flex and respond to threats more quickly, differentiate people with their specific risk scores and allocate security resources accordingly. The one-size-fits-all approach would be a thing of the past. It is possible that a unique experience for every individual can be realised in the near future.”
Debunking common myths about revenue management for parking

An interview with Pauline Oliver, Head of Global Business Development, Parking, IDeaS. By Ross Falconer

Parking space, like an airline seat, is perishable inventory. If the parking space isn’t filled, it doesn’t generate any revenue. If it’s priced too low, the car park is likely to fill up and run out of space. If it’s too expensive, the risk is spaces will remain vacant and the opportunity is lost.

“‘This is very simplistic,’ says Pauline Oliver, Head of Global Business Development, Parking, IDeaS. ‘The reality is demand changes over time, and price sensitivity varies by customer segment and by length of stay. Automation, advanced analytics and dynamic pricing are key for airports wishing to maximise revenue and optimise capacity across multiple car parks, customer segments and sales channels.”

With that in mind, Oliver here dispels some of the ‘common myths’ about revenue management and dynamic pricing for parking:

Why bother with revenue management when parking is dying? Everyone is using rideshare.

“It is true that rideshare is extremely popular and has forever changed consumer travel behaviour. Digital transformation in the mobility space is moving at a rapid pace, and how we plan for and organise our journeys is becoming increasingly connected and personal. People haven’t stopped travelling, and global airport passenger traffic is expected to double in the next 15 years. A large percentage of those travellers will continue to arrive at the airport in a car they wish to park. Revenue management gives consumers greater choice and provides airports a reliable toolset to make data-driven decisions today that will maximise parking revenue while providing insight and analytics to determine strategies that will take advantage of future parking demand. Significant revenue potential exists for those airports prepared to adapt.”

My car parks are busy. I’ll just increase the prices and build more parking facilities.

“No matter how busy your facility is, you simply cannot continue to increase price without reaching a tipping point. The relationship between price and demand means that the higher the price, the less you will sell. With a busy car park understanding the optimal price is important, but just as important is understanding how to optimise the inventory. A good business practise is using price to balance demand across all of your available car parks today for optimal utilisation and revenue return. Once that is done, predictive analytics can help determine the need for additional capacity.”

I have plenty of capacity, and some of my car parks are not busy. I don’t need it.

“Plenty of space represents plenty of opportunity. Revenue management is critical for not only optimising space-constrained car parks but also selling excess capacity. An analytically derived forecast of true demand puts an airport in a position of strength to know when to run targeted marketing campaigns and by how much to discount to attract travellers on the less busy days.”

My parking reservation system provides my yield management needs.

“Reservation systems and online booking tools are essential technology for any airport wishing to improve their parking revenue stream. These solution providers are tuned to the airport’s needs providing customised buying journeys, real-time transactional e-commerce, and integration to payment gateways and your parking equipment. They also provide a range of pricing tools that will allow, even automate, variable pricing. Yet these tools are largely reactionary and rules-based in nature. If the goal is to optimise revenue, then it is essential to also invest in an automated revenue management solution that uses predictive analytics to accurately match price with demand for optimal revenue performance.”

Most of my business is drive-up. What’s the point?

“Even if 100% of your business today is drive-up, the balance will begin to shift when online booking is introduced. Knowing how to effectively price your online channel not only ensures that it continues to grow and contribute higher revenues per available space, it will also protect the premium pricing of your existing drive-up channel. Discounting too deeply online can damage your drive-up revenue by cannibalising revenue, even when the majority of business is still drive-up.”

It won’t work, you can’t just apply surge pricing at an airport.

“Surge pricing, thanks to Uber, has a negative connotation and can come across to the consumer as price gouging. Yet dynamic pricing is not to be confused with this overused buzzword. Rather than raising prices, most airports that offer online booking have been discounting their parking spots since they went online.

“Airports that offer online parking reservations discount in various ways, and variation from the ‘gate-price’ is expected. Demand-based, dynamic pricing presents no differently to the online buyer – the price is the price. What lies behind it – the data science – means that the price points are carefully tuned to customer demand and buying behaviour.”
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Smiths Detection is Gold Sponsor at this year’s ACI Airport Exchange, where Richard Thompson, Global Market Director Aviation, is speaking in the Airport Security Summit. Ahead of the event, he shared some thoughts with Ross Falconer.

“The arrival of rotating CT at the passenger checkpoint is undoubtedly a defining moment”

Richard Thompson, Global Market Director Aviation, Smiths Detection: “Integrating passenger data, border control systems and screening operations is definitely the way forward for aviation security. The goal is to enable free flow of passengers, belongings and cargo, and increase the security and operational efficiencies and effectiveness across the global aviation network.”

“With the Aena order, we will have installed around 500 advanced and approved systems in 50 airports not just in Europe but also across Asia, the Middle East and South America,” Thompson explains.

This new contract includes 163 ECAC Standard 3 approved explosives detection systems to be deployed at Madrid, Barcelona, Malaga, Palma de Mallorca and Gran Canaria airports. Smiths Detection is also supplying a further 62 scanners for out of gauge baggage.

Looking ahead, Thompson emphasises the importance of keeping ahead of the escalating challenges of new regulations, increasing passenger numbers and exacting business goals. all of which demand more complex solutions. “Systems must be flexible and future-proof, with reliable and effective interfaces and a network to drive and monitor productivity. Add to this extraordinary advances in technology and we are looking at a sea change in security.”

Smiths Detection has a strong presence at this year’s ACI Airport Exchange, where its focus will be on the key topic of Computed Tomography (CT) at the passenger checkpoint, along with several other developments such as the use of Risk Based Screening (RBS) and Artificial Intelligence (AI) which, Richard Thompson, Global Market Director Aviation, Smiths Detection, comments “are also set to revolutionise airport security”.

Thompson is speaking in the Security Summit at this year’s ACI Airport Exchange, where he will talk about Smiths Detection’s ECAC CB C3 approved HI-SCAN 6040 CTiX scanner which features CT technology. “The arrival of rotating CT at the passenger checkpoint is undoubtedly a defining moment,” he says. “Regulators are pushing for its deployment in order to improve security levels, but it is also important to underline the equally attractive operational benefits.”

Security checkpoints are a critical point in the passenger journey and the correct strategy here can be pivotal to the overall operation of an airport. “Get it right and the result will not only be high levels of security, but also a cost-effective process, improved on-time performance for airlines, increased passenger satisfaction, and sustainable business growth,” Thompson comments.

The Smiths Detection HI-SCAN 6040 CTiX scanner has been selected by the US Transportation Security Administration and the latest installations have also recently gone live at Melbourne Airport’s Terminal 4. “Feedback from both our worldwide trials and new installations remains extremely positive,” Thompson explains. “Our HI-SCAN 6040 CTiX scanner is demonstrating time and again at different locations that it is more than capable of meeting the demands of busy airports and immediately delivers impressive security and operational benefits. Excellent throughput levels are being reported, boosted by a combination of factors: from a fast belt speed and low false alarm rate, to leaving liquids and electronic devices in baggage for screening, which reduces the number of images to check and also speeds up the process.”

“Enhance security, improve operational efficiency, increase passenger satisfaction”

The air transport industry forecasts a doubling of passenger traffic over the next 20 years. “Biometrics and RBS are recognised as effective ways to process more passengers through existing infrastructure and provide a more seamless passenger journey,” says Thompson. “This is reflected by a number of global initiatives, such as ACI’s Smart Security and ACI & IATA’s NEXTT.”

One of the top digital transformation programmes in airports around the world is the introduction of biometrics, which has already been incorporated into numerous touchpoints along the passenger journey. “It is integral to RBS and the opportunity to enhance security, improve operational efficiency and increase passenger satisfaction,” Thompson comments. “Security operators can spend more time with passengers they know least about or who represent the highest risk – and therefore provide the best experience for those they know most about and who are low risk.”

Meanwhile, over the last three years, upgrading hold baggage screening systems to Standard 3 has been a huge project for Smiths Detection, which recently received its largest-ever single order for hold baggage security scanners from Aena.
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The South Australian Water Corporation (SA Water), in partnership with Adelaide Airport, has conducted a three-year trial involving irrigation and cultivation of airside land at Adelaide Airport using stormwater. The results have shown the lowering of air temperatures within and around the irrigated areas which, with full implementation, could lead to a reduction in the fuel needed for take-off on hot days, as well as other payload, range and obvious environmental benefits. SA Water simultaneously believes the practice is both sustainable from a water conservation perspective due to the use of captured stormwater, and even produces net revenue gains from the resulting agricultural produce.

In the initial trials, Adelaide Airport irrigated a four-hectare parcel of the airside area. A crop of lucerne (an animal feed also known as alfalfa) was planted in the irrigation area to demonstrate the ability to grow commercial crops that would both cool the air and provide a source of revenue.

**Main requirements of trial**

The main requirements for the trial site were:

- At least 200 metres from the main runway;
- In close proximity to the airport’s existing stormwater ASR (Aquifer Storage and Recovery) distribution network;
- Containment of the four-hectare irrigation area by a surrounding unirrigated control area away from buildings and other temperature influencers.

Due to the potential risk of attracting birds, the irrigation system was initially only operated during Adelaide Airport’s night-time curfew period (23:00-06:00), although later irrigation was extended to any time during non-daylight hours. Irrigation then occurred between two to three times per week, with a total volume of around 20 million litres of captured stormwater being applied each year, or five million litres per hectare. Around 40 temperature sensors were placed around the irrigation area, along with five soil moisture probes to inform the irrigation requirements.

**Results and outcomes – surface temperature 6 degrees lower**

During the two years of operation, from December 2015 to April 2017 there was an average temperature difference of 2.4°C during the first summer period, and 2.1 degrees during the second, between the irrigated and unirrigated areas, with most warm days having a difference of around 3°C or more. The irrigation only occurred on two or three nights per week, however these reductions in air temperature were persistent over the following few days. SA Water also found that the bare ground of the unirrigated area had a surface temperature 6°C higher than the irrigated area, demonstrating that bare unirrigated open space actually contributes to the airport’s heat island effect.

**Financial and Economic assessment**

The economic benefits extend to a number of stakeholders, including the airport, the airlines, and the water supplier (there may also be benefits to workers and visitors at the airport). Indeed, the overall economic benefits “far exceeded initial expectations”. Consequently, a financial analysis considered cultivating the maximum feasible area with lucerne, estimated at 187 hectares, over a 25-year period and included indirect economic benefits to the airport and other stakeholders.

SA Water expects that modification of the irrigation methods, and subsequent ability to apply more recycled water to the irrigation area, will show an even greater differential between the irrigated and unirrigated areas.

Realistically, not all of the benefits were claimed to be significant, and others were not possible to quantify due to lack of data. However, it is clear that irrigation and cultivation at Adelaide Airport has shown a significant reduction in air temperature within the irrigation area. Besides application in the airport environment, many benefits can be derived from irrigation of other open spaces, in particular public open spaces such as local parks and sports fields – and the development of best practice by others will no doubt feed back to even more benefits for this method of air temperature reduction at both airports and other open spaces.
Genève Aéroport is very proud to host the next ACI EUROPE Annual Assembly & Congress on 16 to 18 June 2020, to celebrate together the airport's 100th anniversary.

"It will be a great opportunity to share some innovative initiatives launched to turn sustainable development into tangible measures for all communities in order to guarantee the long-term connectivity of airports," says André Schneider, CEO Genève Aéroport.

"Together we will imagine and validate our ambitious and practical actions that aim to protect the environment, while fighting different forms of pollution notably linked to noise, air and water. We have already engaged in environmental management; however, in the future, we are going to take this a step further. The focus will strongly be on the social responsibility and sustainable development of airports to take better care of the planet in a context of international exchange."

Genève Aéroport recently reached an agreement with the main operating airlines of the airport to reduce the negative impact of delayed scheduled departure late in the evening. Beyond this Genève Airport will introduce quotas of delayed departures between 22:00 and 00:30 (curfew already existing until 06:00) as well as special charges to support environmental funds. In that context, Genève Aéroport is also committed to ensuring a better local influence on slots distribution to balance the importance of connectivity and the need for sustainable development.

Genève Aéroport is among the more than 200 airports in Europe that have committed to Net Zero CO2 emissions by 2050. Meanwhile, it was also recently announced that from 2025 Genève Aéroport will cool and heat its buildings with water from Lake Geneva, and hence no more use fossil fuels to do so.
Budapest is a beautiful, culturally-diverse city, colloquially known as the Pearl of the Danube. The Economist recently published an updated list of the world’s most liveable cities, placing Budapest top in Eastern Europe, and it has become an attractive destination for tourists. Hungary’s strong economic growth (+5% in 2018) is also increasing the propensity for air travel. Impressively, passenger traffic has increased by 50% over the last three years and could exceed 16 million this year.

Leading Budapest Airport’s continued growth is its new CEO Dr. Rolf Schnitzler, who took the helm in August 2019 after 14 years of experience in corporate management at AviAlliance. He has also been a member and Chairman of the Supervisory Board of Budapest Airport since 2011.

With a 55.44% stake, AviAlliance is the majority shareholder of Budapest Airport and industrial leader, backed by a strategic long-term consulting agreement. Gerhard Schroeder, Managing Director of AviAlliance, is Chairman of the Board of Directors of Budapest Airport. Commenting on Schnitzler’s appointment as CEO, he said: “I am confident that under Rolf Schnitzler’s leadership Budapest Airport will continue its development as one of the most dynamic airports in the region. We have a clear vision for the future of Budapest Airport and I believe Rolf Schnitzler is ideally qualified to help us realise that vision over the coming years.”

In addition to his experience with AviAlliance, Schnitzler holds a Doctorate in Law with professional experience at Freshfields, HOCHTIEF, the German American Chamber of Commerce, and Deutsche Bank.

“I have known the ‘matrix’ of aviation and airport operation for nearly 15 years now, and have followed the development of Budapest Airport for more than 10 years,” he begins. “My legal and financial educational background, supplemented by business experience, clearly help me to take differentiated views. As Chairman of the Supervisory Board and an AviAlliance executive, I had particular insight into several airports that the group operates, and I have looked at many other airports around the globe that we considered investing in. Irrespective of this, being the CEO of an airport is a serious challenge, especially in Budapest, where we have large-scale developments ahead of us.”

Alongside the initial priorities of getting to know his team, business partners and stakeholders, Schnitzler highlights three focus points: development, passenger experience and sustainability.

“In four consecutive years from 2015 to 2018, Budapest Airport achieved double-digit passenger growth, and this trend is expected to continue,” he says. “This means that, firstly, we have to serve the increased passenger traffic, and, secondly, the increased needs as well. As an airport, we cannot afford to ignore international megatrends; every service provider must strive to provide a ‘user experience’, which in our case is passenger satisfaction. So, the next few years will not just be about the spectacular expansion of infrastructure, but also about the strengthening of the passenger focus. Regarding sustainability, well, the thing is, I was born with a ‘green heart’. Renewable energy, reduction of emissions and overall environmentally-friendly operation – there is no question that we have to operate every day with that mindset. Budapest was the first airport in Eastern Europe to achieve carbon neutrality. That’s a big achievement and, at the same time, an incentive to again become the frontrunner in getting to the next levels.”

“A positive passenger experience”

A series of infrastructure investments totaling €600 million are planned up to 2024. "If our growth story continues – and I have no doubt that it will – we will be coming to the limits of our capacity with the current infrastructure in the not too distant future," Schnitzler explains. "The developments must keep pace with the passenger growth going forward, and appropriately-sized infrastructure is one of the most important elements of a positive passenger experience. I cannot
Dr. Rolf Schnitzler curriculum vitae

Dr. Rolf Schnitzler (48) became the new CEO of Budapest Airport in August 2019, following more than 14 years of experience in corporate management at AviAlliance. He has also been a member and Chairman of the Supervisory Board of Budapest Airport since 2011, and has become intensively acquainted with the airport through the provision of support and legal advice on numerous important projects. Schnitzler holds a Doctorate in Law with professional experience at Freshfields, HOCHTIEF, the German American Chamber of Commerce, and Deutsche Bank.

Dr. Rolf Schnitzler, CEO Budapest Airport: "I have known the 'matrix' of aviation and airport operation for nearly 15 years now, and have followed the development of Budapest Airport for more than 10 years."

say much about specific plans for the moment, as we are still discussing internally, but Budapest Airport will have a new 'face' in every sense."

As part of this firm focus on the passenger experience, the trial operation of self-service baggage drop-off counters began in August. Schnitzler reports very positive feedback. "The baggage check-in process is much faster and more efficient; the process is not more than 1-2 minutes. Moreover, passengers increasingly like to take care of things at the airport before departure themselves, so automation is a key issue."

Sustainability is also a priority during the development of the airport, which was recognised at Level 3+ Neutrality of ACI's Carbon Accreditation last year. "We would like to create long-term value and set an example to follow for the neighbouring community, passengers and partners alike," says Schnitzler. "We've reduced carbon dioxide emissions per passenger by 49% over the last five years, and drinking water usage is down by 30%. This is great progress in itself, especially as we achieved this reduction during a drastic increase in passenger traffic."

Furthermore, Budapest Airport has signed up to ACI EUROPE’s NetZero2050 pledge, committing to net zero by 2050 for the carbon emissions under its control. "We will achieve this with a new sustainability strategy, which includes, for example, making waste management more environmentally-friendly, rationalising energy consumption, and supporting electro-mobility," Schnitzler explains. "Cooperation has a key role to play here as well: as part of our GreenAirport programme, we are working with other organisations operating at the airport on implementing sustainability criteria."

Award-winning route development

Budapest Airport has an award-winning route development strategy, being named overall winner at the recent World Routes Awards, with 34 new routes announced or started so far in 2019. "We are so proud of this award – it is comparable to the Olympics in sports or the Oscars in the film industry," Schnitzler enthuses.

Flights are now available to 142 destinations in 47 countries from Budapest, including Shanghai, Seoul, New York, Philadelphia and Chicago.

"I think we can remain competitive in the Vienna-Prague-Budapest triangle if we are able to offer new destinations which make it worthwhile to choose Budapest and Budapest Airport," says Schnitzler.

While there aren't many white spots on Budapest's European route map, the airport does see untapped potential, including for increased frequency on many existing routes. "However, route development is not just a race, but also teamwork, where you can achieve really great success if the airport, the airlines, and the government all work together," Schnitzler adds.

The airport works closely with its airline partners, helping them understand the local market and demand, while designing tailor-made products. One example is the creation of hub services, for both full-service and low-cost carriers, despite Hungary not having a flag carrier.

Looking ahead, Schnitzler explains that the next big thing is the further development of Budapest Airport’s infrastructure, considerably increasing the terminal capacities to meet continued strong traffic growth.

"This goes hand-in-hand with increasing connectivity by attracting even more new routes – and of course all this with the passenger in mind. The passenger experience and customer satisfaction are really the top priority for me. At the same time, Budapest’s role as a hub needs to be developed further, and we are also facing numerous challenges in sustainability. An airport never stops; we are making continuous progress."

Budapest Airport Factbox

- 2018: 14.9 million passengers
- 2018 passenger traffic growth: 13.5%
- Q3 2019 passenger traffic growth: 6.8%
- Key airline customers: Wizz Air, Ryanair, Lufthansa, easyJet, Eurowings
- Number of routes: 142
- Top 3 destinations: London, Frankfurt, Paris
PEOPLE FLOW

An interview with Simone Tiberti, Head of Infrastructure in South Europe, Middle East and Africa, KONE. By Ross Falconer

People flow solutions to enhance passenger experience

KONE is People Flow Partner at this year’s ACI Airport Exchange. It is also participating in the Airport Development & Sustainability Conference at the event, presenting a joint case study alongside Oman Airports on the people flow solutions implemented at Muscat International Airport.

“For the New Muscat International we had an extremely good collaboration with OAMC, for the early phases of defining the solution, but especially during the critical times of delivering and installing our solutions at the site,” explains Simone Tiberti, Head of Infrastructure in South Europe, Middle East and Africa, KONE. “As Airport Exchange is an event where success stories are celebrated and shared, we will, together with OAMC present some of the key factors which made our collaboration smooth and efficient.”

KONE invests a considerable amount of resources into continuously improving and adapting its processes to meet those of its clients. By doing so, the company believes it can truly leverage on value-driven project management.

“Project management is not just making sure we can deliver by respecting the triple constraint – scope, time and cost – and ensuring top-notch quality is also no longer enough to help our customers succeed in their business,” says Tiberti. “Today, on top of delivering on our promises, we must strive to make it an exceptional journey throughout the entire life-time of the project.”

After handing over the equipment, KONE is still in collaboration with Oman Airports. “There might be areas where we can improve, which you only realise once the airport is in action,” Tiberti adds. “This is what we coach our Project Managers to improve day after day. They all are trained and certified through a rigorous certification programme, which is verified by the International Institute of Learning. It’s not just about project managers, it’s how they can operate within the entire organisation, with senior sponsors to lead them, project management offices to support them, having latest tools and technologies at their disposal, and feeling a true sense of trust in what they do to point their teams towards our customers’ targets.”

He emphasises the importance of early engagement and collaboration to define how the latest technologies can support their overall vision for the project.

“Understanding and presenting the full life-cycle impact of our choices definitely helps our customers sharpen their business plans, and it provides them with the right confidence to move ahead in the project development,” says Tiberti. “Nurturing a working environment based on transparency and trust is the most efficient way to together overcome problems later on. It’s well-known how flawless people flow is an essential element of a successfully-functioning airport, but today this is no longer enough. Offering a superior passenger experience is a clear differentiating factor that can determine whether or not an airport is able to generate profitable growth. It encompasses all the touchpoints any passenger can go through during their journey and a single fail can compromise the overall perception, whether that is too long at security control, unclear signage, poor connectivity, or an escalator’s downtime.”

Full life-cycle approach

“We live in a digitised world, and it is vital to ensure that any product or service is future-proofed. “Connecting our equipment to the IBM Watson IoT Cloud Platform opens up a world of possibilities – from utilising AI to considerably improve reliability and availability by proactively fixing minor issues before they turn into problems (KONE 24/7), to integrating elevators and escalators to other services, such as robots, augmented reality, and many more,” Tiberti explains. “This is exactly what we do at KONE. The full life-cycle approach to projects is the only solid and safe approach to guarantee value to our clients for the years to come. We design our products to be future-proof, so that if you buy an elevator today, you don’t need to worry about not being able to integrate an App that is going to be available two years later. And you can keep updating more and more.”
UBIMET’s unique lightning safety concept reduces thunderstorm-related ground handling stops by 50-70%. It enables objective and transparent decision-making based on high-quality, real-time data.

Thunderstorms and lightning activity do not only put people at risk; they also pose a significant risk to the profitability of airports, when ground handling has to stop because of inclement weather. The longer the interruptions, the higher the costs. Consequently, airports strive to minimise weather-related downtimes and streamline decision-making procedures.

The challenge for airport operators is to find the optimum balance between human safety and operational efficiency. An overly cautious protocol will unnecessarily increase operational inefficiency, delay flights and cause avoidable knock-on impact on the schedules of airlines, airports and handlers.

Full situational awareness on three pillars

In close cooperation with its airport customers, UBIMET has, therefore, developed a comprehensive lightning safety concept, enabling full situational awareness at any stage of a thunderstorm. It encompasses three elements:

1. The most accurate lightning detection network

The proprietary global lightning detection system LINET of UBIMET’s lightning specialist nowcast is able to detect lightning strikes with unmatched sensitivity, accuracy and detection in 3D, giving it the capability to separate between ‘cloud to cloud’ and ‘cloud to ground’ strikes. These features make it the most advanced commercially available system, similar to special solutions for militaries or NASA. It provides the best lightning data on the market and forms the core of UBIMET’s lightning safety concept. LINET warns airports in real-time of lightning strikes in their vicinity.

2. Real-time thunderstorm tracking

The second element is thunderstorm nowcasting and cell tracking in real-time based on a highly sophisticated algorithm called rTNT. Within minutes of the first lightning strike, rTNT calculates the thunderstorm’s movement and shows a 60-minute preview, indicating the thunderstorm’s expected route and position. Ground handling managers therefore know exactly when a thunderstorm will hit the airport.

3. Local field mills covering the airport

The third element are local electrostatic field mills installed directly at the airport to detect potential lightning strikes above or in close vicinity of it. When a field mill measures a voltage of less than 100 V/m it is safe to assume that there is no chance of a lightning strike close or above the airport.

50-70% percent less downtimes and automated decision-making

An intelligent algorithm combines the data from lightning detection, nowcasting and the field mills to indicate the perfect moment when to stop or resume ground handling activities. Visualised in the Weather Cockpit®, using the traffic light system with the colours red, yellow and green, the UBIMET system provides an automated, reliable, transparent and easy-to-use decision-making tool. If the situation is “All Clear”, ground handling can resume.

Renowned airports all over the world from Frankfurt to Vienna use the integrated UBIMET lightning safety concept to reduce ground handling stops by 50-70%.

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The Middle East is awash with government-owned airlines with profit as a secondary – or lower – consideration. For private airlines, this makes the going even tougher than usual.

Airport Business’ James Pearson met up with Rohit Ramachandran, CEO of Kuwait’s privately-run Jazeera Airways, to discuss the airline’s development, new routes – including London – and what makes it different.

Against all of this is the environment in which it exists. “We have always had to compete on an unlevel playing field,” says Ramachandran. “We aren’t like the government-owned big boys who don’t have P&L pressure.” It is against this that everything that it is doing can be framed.

Jazeera Airways’ robust expansion
Following years of almost non-existent growth, Jazeera Airways has grown strongly in the past year. It has nearly doubled its seats in 2019 versus 2017, with an additional 1.4 million. This growth coincided with the arrival of Ramachandran in February 2017, who previously had senior roles at Air Arabia for 12 years.

“Our expansion is giving customers access to new destinations through direct or short one-stop flights across the Middle East, Europe and Asia,” says Ramachandran. This is shown through new routes beginning in Q4 2019: Kathmandu (Nepal); Karachi (Pakistan); Chittagong (Bangladesh); Al Ain (UAE); and Dammam and Abha (both in Saudi Arabia).

These six will join two new routes that have just begun: Osh, Kyrgyzstan, and – most significantly – London. Three new Airbus A320neos will arrive by the end of 2019 to enable this expansion, taking the airline’s total to 13.

London calling
On 27 October, Jazeera started a daily service to London Gatwick using a newly-delivered A320neo. This variant, Ramachandran says, will have an 18% lower fuel CASK (cost per available seat kilometre) than its ceos. This is, of course, counterbalanced by much higher ownership costs.

Since 2015, the London-Kuwait market has grown steadily to nearly 400,000 point-to-point passengers – with a strong CAGR of 7%. Interestingly, the UK CAA shows that 81% of the market is for VFR and leisure. “Kuwait has strong links with the UK… there are lots of Kuwaiti students there,” says Ramachandran.

It is these price-conscious travellers, those flying to Saudi Arabia for religious purposes, and those travelling to Delhi and Dubai, among others, that Jazeera targets. “We expect our average economy fare to be 25% less than existing non-stops to Kuwait,” says Ramachandran.

Jazeera has three classes on Kuwait-London: economy, premium economy and a simple business class (akin to business class within Europe). “Our business return will be less than half existing fares,” says Ramachandran. “It’ll average around £850 return.”

Its new premium class – involving a guaranteed free middle seat and an extra inch of legroom – was borne out
of necessity. ‘We would have a payload restriction to London, so we decided to monetise this disadvantage.’ This multi-cabin layout leads to a low seat density of just 162. Further proof that it isn’t, despite Ramachandran’s contention, a low-cost carrier. It is very much a hybrid.

Ramachandran is clear. London is an experiment. ‘We want to see its performance and how it matures before serving anywhere else in Europe.’

Manchester next?
If London performs to expectations, Ramachandran expects Manchester to be its next Western European destination. Manchester is Kuwait’s largest unserved market in Europe. OAG Traffic Analyser shows 30,000 indirect passengers and an average fare of USD$279 in the year to August 2019. Combined with one-stops to Saudi Arabia, India and the UAE, it’ll be worth full analysis.

Further ahead, other possible future destinations may include Barcelona (27,000 indirect; $299), Larnaca (21,000; $220; served seasonally by Kuwait Airways) and, in Turkey, Antalya (23,000; $211; served seasonally).

Near-term growth
By the end of 2020, Jazeera expects to have 16 A320s, both ceos and neos. It is also in early discussions with Airbus for two A321s.

Near-term network growth won’t involve Europe but, instead, the Indian Subcontinent, Iran, Central Asia, and Saudi Arabia. Saudi Arabia will become a fundamental part of Jazeera Airways. ‘We are far smaller there than we should be by now. We expect to serve nine cities there in the next two years.’ Alongside existing Riyadh and Jeddah, and seasonally to Medinah and Taif, Dammam and Abha are coming.

Like many airlines, Jazeera is hampered by bilateral restrictions. ‘India has been a sticking point for a long time,’ Ramachandran states. ‘It’s not hard to see why. Despite one million Indians in Kuwait, the last ASA was signed in 2007 and is limited to 12,000 seats. As such, 55% of people connect, aided by myriad hubs en-route that add little distance. Pakistan is like India in terms of bilateral constraints, ‘but it’s not as extreme.’ Yet Ramachandran remains hopeful. ‘Bilateral renegotiation is long overdue, and they’re being reviewed in the next couple of months.’ This will play a crucial role in whether Jazeera expands further into South Asia as Ramachandran expects.

Small but strong – and different
In Q3 2019, Jazeera Airways achieved a load factor of 80.7%, below the global average. It carried 703,000 passengers (+14% YOY), with traffic growing faster than yields (+5%; USD$160). The extra traffic volume, and emphasis on ancillary streams, saw this source grow by nearly 60% YOY. It achieved net profit of USD$25 million in this quarter, up 38%. ‘Despite being small, we pay USD$20-30 million in dividends per year and we have zero debt,’ says Ramachandran. Not many in the Middle East can say that.

Not a terminal problem
Nor can many – any – say they have their own terminal. ‘It’s a shopping mall business,’ Ramachandran explains. ‘All revenue goes straight to our bottom line.’ Asked about the reason for its own terminal, Ramachandran was clear. ‘Kuwait’s normal terminal is no good. We want to control passengers’ experiences. Immigration now takes 90 seconds, and it’s just 15 minutes from landside to the aircraft.’ Jazeera is beginning to see interest in its terminal from other airlines, potentially offering another revenue stream.

Despite the unlevel playing field, Jazeera Airways seems to be finding innovative ways to succeed, even if they do raise eyebrows at times.
Cyber an Ally for Airport Operators

Airport operators around the world, especially the smaller regionals, are facing extremely challenging times. They are at the epicentre of a perfect storm formed of pressures such as threatened profits, increasing regulatory demands and the need for additional investment in operational infrastructure. The evolution of technology and the promise of Cyber Physical Systems, sometimes known as the fourth industrial revolution, may just be able to alleviate the pressure. Colin Smith, Founder and CEO of CHS Engineering, explains more.

Times change and airport operators are having to evolve to meet the demands of their new reality. For example, budget airlines have demystified and simplified the process of travel, making it cheaper and available to all. The airlines have now turned to the airport operators to help achieve additional efficiencies. They pushed back on the levels of airport charges and demanded more aircraft slots at peak times to suit their business model and their customers. Airport operators are being squeezed. Reduced profit margins and a demand for better infrastructure, such as baggage handling systems and passenger search systems that can cope with huge spikes of activity during shorter time periods.

The pressure is compounded by the ever more stringent security regulations being issued for baggage handling systems around the world, that require new types of x-ray machines and with ever evolving security threats, these challenges are not likely to disappear anytime soon.

The most logical solution is collaborative working between Ground Handlers, Airlines and Airport Operators. Dashboards of real time factual data turned into accurate information to monitor the end to end operational components are an essential part of driving and achieving standards.

Cyber an Answer

So, what is the answer for airlines and airport operators? Just how do they respond with increased investment and efficiencies to allow their businesses to continue to thrive. One answer is the application of Cyber Physical Systems.

The advent of technologies such as the Internet of Things and Machine Intelligence are providing opportunities to make drastic sustainable savings with the introduction of automated monitoring and alerts systems for all electromechanical equipment across the airport engineering infrastructure and facilities. The same technology can also be used to monitor passenger flows and allow early warnings of potential bottle necks in the associated processes.

The periodic inspections of airport infrastructure, such as baggage handling systems, can be replaced with non-intrusive, efficient 24/7 monitoring. Small sensors constantly monitoring over the internet to autonomous systems can send automated alerts by email or text.

The data is trended in real time, providing specific probability density and informing risk management of impending failure. This forewarning provides the airport operator with several advantages. It identifies the development of failures at the earliest point in the failure curve, maximising the window of opportunity for corrective action. Spares stock can be rationalised, shut downs planned and work scheduled in a controlled environment. Put simply it avoids unplanned outages, optimises the work schedule and reduces costs.

The information can be easily displayed to the end users on a digital dashboard to show asset health status at a glance with the views customised to organise assets by location or type.

New cyber systems do require additional investment, they are the leading edge of the next wave in business efficiency with a clear and undeniable return on investment. For airports looking to get back on the front foot and who want to prepare their business for the next era of commercial aviation, the fourth industrial revolution has arrived right on schedule.

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Jointly organized by ACI Asia-Pacific, ACI Europe and ACI World
Ho'okipa beach, on the famous road to Hana on the Hawaiian island of Maui, is one of the world’s most renowned windsurfing destinations. It is here where local Maui hero Robby Naish at the age of 11 started a new sport, which has become the worldwide industry of windsurfing. This is a spot for pros, with strong winds, big surf, rip tides and shallow reefs.

With that, the place itself can stand as an acronym for the airline industry, where competition is harsh, regulations tough, and digitally-connected passengers on social media are able to make or break reputations and brands.

Ho’okipa is also a Hawaiian word meaning ‘host with love and compassion’.

“Hawaiian Airlines strives from start to finish to provide its guests with a truly uniquely Hawaiian experience filled with a warm Aloha,” according to Jon Kim, Senior IT Manager Airport Operations, Hawaiian Airlines. “With this as the baseline, Hawaiian recognised that, as a start, long queues need to be avoided and the only way for this to be achieved is through new and evolving processes.”

One of the most underestimated details and processes is the tagging of passenger baggage.

Passengers tagging their own bags speeds up the process, but with a standard bag tag it takes passengers quite a while to figure out what to pull, what to keep, what to tear, etc, which creates unnecessary stress that puts the whole seamless travel experience at risk.

“Hawaiian Airlines has leveraged eezeetags, which requires no removal of any liner to expose the adhesive and as a bonus works with an adhesive that only sticks to itself, so it is possible to create an easy, fast and clean experience, as the tags create no waste,” Kim continues. “The process from beginning to end, on average, saves 20 seconds per passenger – ultimately providing our guests with a uniquely Hawaiian travel experience.”

The whole renewal of the Hawaiian Airlines self-service hardware, in this case supplied by Embross, is fitted with eezeetags certified printers, enabling a smooth and trouble-free operation. "Hawaiian is the first US carrier to utilise these amazing tags," says Kim. “Before Thanksgiving, all Hawaiian Airlines self-service installations at the Hawaiian islands will print out an eezeetag® bag tag, and we are planning to bring the same service over to the continent and other outstations in 2020.”

Borry Vrieling, founder, owner and Managing Director of eezeetags, is equally proud to have Hawaiian as its first US customer. “This customer fits us like a glove, since we developed the product not around the existing technology, but around the passengers and our customers process. This might even be seen as disruptive and has meant huge challenges regarding acceptance within the supply chain from a technical perspective. But we kept believing in our ultimate goal, making passengers lives easy and while doing that maximising terminal capacity and bringing down operational costs. We could not have done without the pitch perfect cooperation with our US agent Gateway Business Communications, Jon Sikorski the account executive who managed the customer through the whole POC process, together with Joey Campbell at the kiosk supplier Embross.”

He concludes: “Being a surfer myself, I always dreamt of being at Ho’okipa beach and this has now happened. But a far more beautiful thing has happened, my product has become my dream: eezeetags = Ho’okipa.”

The renewal of Hawaiian Airlines’ self-service hardware, supplied by Embross and fitted with eezeetags certified printers, is helping facilitate a seamless traveller experience at Maui Kahului Airport. By Ross Falconer.
Recognising progressive ideas in action
transforming airport performance and reputations

INNOVATION SHOWCASE

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INNOVATION SHOWCASE

Gatwick, Budapest, Manchester, Frankfurt and Schiphol are among the European airports currently spearheading innovation in the passenger terminal. Report by Marta Dimitrova

Gatwick Airport trials boarding by seat number to reduce queues

London Gatwick is trialling a new boarding technique in partnership with easyJet in a bid to avoid queues and congestion at gates.

During the two-month trial, digital screens and staff will be placed at Gatwick Airport’s Gate 101 to show passengers the order to board. A range of sequences will be trialled to test whether they make the process faster, more relaxing and, potentially, reduce the need for large numbers of passengers to rush forward at any stage.

Possible sequences include seating people from the back row to the front with window seats first, middle seats next, and aisle seats last.

Passengers who have booked priority boarding – or those who require special assistance or are travelling with young families – will still board first during the trial. Modelling indicates that these techniques may be able to reduce boarding times by up to 10%, compared to conventional methods. Learnings from the trial, as well as feedback from passengers, will be used to decide whether to take this concept forward or not.

Abhi Chacko, Head of Enabling Technologies and Digital Innovation, Gatwick Airport, said: “We want to explore whether boarding by seat number will avoid queues in the gate room and when boarding the aircraft.

“Early indications are that this new technique has the potential to reduce the overall boarding time. By communicating to passengers better and boarding passengers by seat number, we also expect to make the whole boarding experience more relaxing and, potentially, prevent large numbers of passengers rushing forward at any stage.”

Budapest Airport rolls out WeChat Pay for Chinese passengers

Having introduced both Alipay and China Union Pay, Budapest Airport and Heinemann Duty Free have now rolled out WeChat Pay for Chinese passengers. Visitors from China can enjoy the same cashless payment experience in Budapest Airport, as they have at home.

“Each of these platforms are part of an everyday lifestyle in China – among the most popular apps with unique communities, making every connection possible between consumer and vendor,” explains Kam Jandu, CCO, Budapest Airport. “Working with Heinemann Duty Free and other partners to introduce what are rapidly becoming principal payment methods for businesses wanting to reach Chinese shoppers, especially abroad, will enable us to connect with our customers on numerous levels.”

With 700 million users, WeChat Pay supports more than 13 currencies across 40 countries. As Europe becomes the platform’s key market this year, Budapest is one of the first airports in the region to introduce the system. WeChat Pay offers European merchants smart solutions to process payments and enable customer service activities for the growing number of Chinese tourists each year.

The ability to utilise China’s major merchant suppliers has also proven prolific among some of the major retailers at the Hungarian capital city airport.

Visitors from China can now enjoy the same cashless payment experience in Budapest Airport as they have at home.
Manchester Airport introduces AirPortr baggage delivery service

Manchester Airports Group (MAG) has announced a new partnership with travel technology scaleup AirPortr to expand home bag check-in and delivery services to Manchester Airport. The collaboration sits as part of the airport group’s ambition to enhance and digitalise the passenger journey and to diversify into new airport services. In addition, this project is the first time AirPortr has collaborated with an airport operator, to fully integrate baggage services within the airport’s infrastructure, entirely segregating bags from traditional landside check-in areas, with off-site processing and tagging for multiple airlines.

The service enables customers to have bags collected from their home, where travel documents are scanned and validated, powered by AirPortr’s technology to complete the check-in process. Real-time driver and bag tracking are provided throughout the journey, giving passengers peace of mind that their luggage has arrived safely at the airport. Digital bag tags are then issued when bags are delivered into the system and will be next seen by the passenger when they arrive at their final destination. The service means passengers can head straight to security when they arrive at the airport, skipping the check-in or bag drop process entirely and transforming the baggage experience.

The service can be booked directly via MAG’s website, alongside other products such as fast-track security, car parking and lounges. Alternatively, passengers can book directly with AirPortr or via participating airlines. The service is available from £20 for one item of luggage, with extra pieces costing £7 each.

Schiphol Airport rolls out Internet of Things applications

Amsterdam Airport Schiphol has announced the roll-out of its own network for Internet of Things (IoT) applications at the airport. The network offers coverage in all public areas such as the arrival and departure halls, lounges, piers and Schiphol Plaza, and in non-public areas such as the baggage basements and aprons. Due to greater range and reduced power consumption as compared to Wi-Fi, the network is ideally suited to connecting with smart sensors and sending data over long distances. The sensors connect facilities and infrastructure at Schiphol to the internet, while the information from these sensors provides the airport with real-time insights. The network was also installed for other organisations that are interested in implementing an Internet of Things at Schiphol. The first Internet of Things application at Schiphol allows passengers to share real-time feedback regarding their experiences in the toilet facilities. The real-time evaluations from passengers are then applied to conduct a detailed analysis of how the toilets are being used and assessed. The real-time information enables the airport’s cleaning contractors to take proactive action to deal with malfunctions or unhygienic conditions. Schiphol has also shared plans to test applications involving sensors at aircraft stands, so that the sensors can provide real-time information about the equipment on-site at the aircraft stand. The airport expects that this will make it possible to check whether the necessary equipment is present before the aircraft and the handling personnel arrive at the gate. At the same time, this information is expected to help resolve disruptions quickly and prevent delays for the airline and passengers.

Fraport trials AI-powered autonomous robot at Frankfurt Airport

Frankfurt Airport (FRA) has introduced a new self-driving guide robot, called YAPE, to accompany passengers to their gates and help them transport their luggage. The AI-based transport and delivery robot is developed by Yape Srl, a company of Italian hi-tech manufacturer e-Novia, and was deployed in FRA’s transit area for five days. During the initial phase of the trials in FRA’s Pier A Terminal 1, a smartphone app was used to interact with the robot. Passengers placed their small luggage in the robot’s luggage compartment and let YAPE guide them to their gates. Thanks to its integrated navigation system the robot is able to freely move through the terminal. According to the airport, in the next phase the robot will interact autonomously with passengers.

YAPE can carry up to 30 kilograms at a speed of about six kilometres per hour indoors. Since the self-driving electric robot senses its surroundings, it is able to circumvent obstacles. By trialling the autonomous transport robot, Fraport aims to test new ways of enhancing the passenger experience, while at the same time reducing staff workload.
brandtech is a belief that, thanks to technology, it is now possible to do all marketing better, faster and cheaper. The smartphone has created a tectonic disruption in the marketing world – totally changing how and where people consume content, creating a huge need for new types and formats of content for all of the new channels and platforms. It also enables every person to be a content creator, as well as generating unprecedented levels of data.

“The term brandtech encompasses how brands can build capabilities in technology that respond to the different demands of the digital age,” explains David Jones, former CEO of advertising agency Havas and the founder of You & Mr Jones, a tech holding company specialised in brand communication. “People take in content in so many different ways, and brands have to know how to build content that is short, that is long, that is vertical, that is text, that is video, that is emoji, that is AR and that, above all, lives on mobile. Technology not only means that you now need to produce all of this new content, but it has also provided the means for you to do it at a fraction of the cost of old-fashioned legacy methods. And then to leverage all of the data – GDPR compliant of course – to make it more effective.”

In addition, it’s provided an entire new resource to create this content. Brands used to be defined by what brands said to people, but today they are defined by what people say to people. “We are passionate believers in ‘people-powered marketing’ – tapping into the over one billion people who can now, armed with just their phone, create, produce and share content that’s as good as – and much more authentic – than that generated by the so-called professionals,” says Jones.

Artificial Intelligence and Augmented Reality “will change everything”

New and emerging technologies are going to have a big impact on branding. “I don’t think we fully understand yet the extent to which both Artificial Intelligence and Augmented Reality are going to have a dramatic impact, not just on marketing and branding but on business and even the internet,” Jones comments. “They will change everything from content creation and distribution, to customer service, to entire business models.”

AR will mean that every single place, product, object, destination or experience can be augmented through technology, while AI will mean that all content will be intelligent.

“All brands will have connected data/media/content in real-time,” Jones adds. “AI will also enhance people’s ability to carry out their jobs and dramatically improve customer interaction. I think in the next five years we are going to see more change and disruption than we have in the last 10 years.”

Meanwhile, at a time of increasing concerns over the environment, businesses have an important role to play in helping ensure a sustainable future.

“We often say that brands need to move from ‘marketing to consumers’ to ‘mattering to people’, and I think this phrase is a very good barometer to use when looking at how to help ensure a more sustainable future,” says Jones. “For a long time, brands were reluctant to get involved in social issues. Then, more recently, brands started thinking that they had to stand for something beyond simply profit, to have a purpose.”

Indeed, it is increasingly clear that people want brands to take a stand for something. Jones concludes that this matters more and more, especially to young people.

“We’re seeing brands move from purpose to actual activism. People expect more than good citizenship, they expect commitment, like Patagonia did for climate change, or Nike did with Colin Kaepernick, or TOMS for anti-gun violence. It’s a new world in which technology, purpose and activism are changing the rules of marketing.”
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