“Today’s airport groups are as global as our airline groups”

Interview: Henrik Hololei, Director General, DG MOVE, European Commission

Cybersecurity
Building resilience to escalating cyberthreats

Airport IT trends
IT – more than a digital transformation at airports

Airport Climate Action
Global industry effort surpasses 200 airports milestone
More than 200 airport locations worldwide in 113 countries.

Contact:

Wendy Barry
325 Sub Way, Milford CT 06461
1.800.888.4848 x1788 | 1.203.877.4281 x1788
Barry_w@Subway.com, or visit Subway.com
OLIVIER JANKOVEC, DIRECTOR GENERAL, ACI EUROPE

Editorial: Airport Slots and Charges – two sides of the same coin

HENRIK HOLOLEI, DIRECTOR GENERAL, DG MOVE

Regarding Henrik

OLIVIER JANKOVEC, DIRECTOR GENERAL, ACI EUROPE

A snapshot of stories from around Europe

HENRIK HOLOLEI, DIRECTOR GENERAL, DG MOVE

Building resilience to escalating cyberthreats

A snapshot of stories from around Europe

A snapshot of stories from around Europe

AIRPORTS IN THE NEWS

Global airport industry climate action surpasses 200 milestone

AIRPORT CARBON ACCREDITATION

AIR TRANSPORT AIRPORT IT TRENDS SURVEY 2017

IT – more than a digital transformation at airports
EUROPEAN REGIONAL AIRPORTS
Local Heroes

APEX IN SECURITY
ACI World’s APEX in Security

SESAR
“Winter is coming”: how airports in Europe can stay resilient to bad weather

SESAR DEPLOYMENT AIRPORT GROUPING
Another EU funding call launched for airports modernising their ATM-related investments

OMAN AIRPORTS MANAGEMENT COMPANY
OAMC’s 2020 vision: ‘Growing gateways to beauty and opportunity’

THE AIRLINE CONVERSATION
With Captain Mohamed Ahmed, CEO SalamAir

AIRPORT PEOPLE
Ad Rutten, CEO of Turnaround Terminal and former EVP & COO, Royal Schiphol Group

OPERATIONAL READINESS AND AIRPORT TRANSFER
Twice-weekly operational readiness trials underway at new Muscat Airport

AIRPORT SECURITY
Promoting harmonisation of security standards and best practices across the globe

AIRPORT SECURITY
At the leading edge of aviation security

HAMAD INTERNATIONAL AIRPORT
Hamad Airport setting foundations for “technology-enabled business transformation”

AIRPORT SECURITY
Delivering exceptional levels of security and increased operational efficiency

DIGITAL INNOVATION
Private Cloud-based infrastructure creating platform for innovation at Muscat and Salalah

AIRPORT SECURITY
A vision for the contactless passenger journey

RAS AL KHAIMAH INTERNATIONAL AIRPORT
“The gateway to RAK’s opportunities and prosperity”

CRISIS AND EMERGENCY TRAINING
A methodological approach to crisis leadership & management

AIRPORT SECURITY
Increasing passenger flow and experience at security checkpoints

OPERATIONAL READINESS AND AIRPORT TRANSFER
ADP International strengthens its geographical footprint by “adding value and boosting passenger traffic”

INNOVATION SHOWCASE
Passenger-focused innovation

OUTSIDE IN
Sandi Adam, Chief Marketer, Zunum Aero

CONTENTS CONTINUED
Find out why the world’s best airports are part of the Airport Service Quality programme

Excellent customer service, excellent airports

For more information on how to join the ASQ network, contact the ASQ team:

+1 514 373 1200  aciasq@aci.aero  http://www.aci.aero/Airport-Service-Quality  @ACI_ASQ

*Airport code sizes are based upon Director General’s Roll of Excellence inductees and ASQ Award winners since 2006
** The ASQ Awards are provided based upon the top three mean scores on overall satisfaction from the ASQ Survey
Regular readers of The Economist will have noticed an ugly truth about aviation that made headlines in the weekly magazine just last month (November). Airport slot allocation rules are very specific to the industry and yet to the surprise of many, The Economist accorded the subject the honour of being one of its top leader articles of that week’s edition – alongside the fall of Robert Mugabe, analysis on China’s fiscal system and a piece on technology & emissions.

The leader piece and accompanying analysis deeper inside the magazine, challenged the EU airport slot allocation rules (which essentially replicate IATA’s decades old guidelines). Pointing to widespread airport congestion in Europe (out of the 190 capacity limited airports worldwide, 103 are in our continent), these articles exposed the extensive benefits that airlines gain from airport congestion.

Indeed, airport congestion means that fewer airlines can schedule flights, resulting in reduced competition, increased pricing power (or scarcity rents hurting consumers) and even more: windfall profits for airlines. These windfall profits come from airport slot rules not only creating additional barriers to entry, but also allowing incumbent airlines to grab the entire proceeds of selling the slots they received for free (witness the aftermath of the failure of Monarch and how its airport slots were deemed some of its most valuable assets). With a single slot pair at London-Heathrow selling for €75 million last year, it is understandable that The Economist chose to refer to the system as an “airport heist” for airlines “winning the lottery”.

While airlines have fiercely opposed any meaningful reform of EU airport slot allocation rules, they have been pushing equally fiercely for EU airport charges rules to be overhauled. What they want there is tighter regulation across the board to ensure a downward pressure on airport charges. In their view, this should involve them gaining more control over airports’ investment decisions in capacity, as well as mandatory subsidisation via the so called ‘single till system’ – where all of an airport’s commercial revenues are automatically used to decrease the level of airport charges.

No more splendid isolation

Airport slots and airports charges have so far been considered in splendid isolation by EU regulators. They are dealt with by different legal instruments, which do not even cross-reference each other and do not refer to wider aviation policy objectives. Yet, EU rules on airport slots and airport charges are two sides of the same coin. Or, at least they should be if aviation policy is to be geared towards increasing connectivity, consumer welfare and wider economic development – which happen to be the stated objectives of the EU Aviation Strategy, launched two years ago.

This means that the rules concerning the financing and the use of airport infrastructure need to be coherent – and unambiguously aligned with these objectives. In this regard, it is striking that The Economist’s own conclusion on the need for slot allocation reform perfectly matches what needs to happen with regard to airport charges: “The aviation industry should pay for the infrastructure it uses, not make hay from it”. This contrasts with the above mentioned airlines’ agenda for mandatory subsidisation, a controlling say in investment decisions at the airport and other controlling pleas – which are now also supported by IATA’s anti-airport privatisation rhetoric. Welcome back to the 1950s!

All this shows that there is still work to be done to align EU Regulations across the board with the Aviation Strategy’s commendable objectives. From that standpoint, the European Commission’s current evaluation of the EU Airport Charges Directive is going to be a test case and an emblematic one at that. It will determine whether the Commission is standing by its own aviation policy objectives. This necessarily implies resisting pressures in favour of the overtly airline-centric approach that has dominated aviation policy for too long – in favour of an unequivocally consumer-centric one. This should also mean carrying out the evaluation alongside a review of EU slot rules.

For us as Europe’s airports, what is at stake with this evaluation is no less than the legitimacy and independence of our business. For the European aviation network, this will have major implications on airport capacity developments and connectivity. And for the air traveller?

I’ll let you think about that.
Airports in the news

Have you seen the newly refreshed Aviation Express yet? To subscribe to our daily newsletter and stay up to speed with the latest aviation news, drop a line to aviation.express@aci-europe.org

**Kiruna Airport, Umeå Airport, Åre Östersund Airport and Malmö Airport**

In October, Swedavia’s 10 airports handled around 3.7m passengers – a 5% increase compared with October 2016.

LFV, Air Navigation Services of Sweden, and the airport company Swedavia, have signed an agreement that establishes air traffic service (ATS) from a remote position at four Swedavia airports. Concerned airports are Kiruna Airport, Umeå Airport, Åre Östersund Airport and Malmö Airport. A joint Remote Tower Centre for air traffic service from a remote position at the four airports will be located at Stockholm Arlanda Airport in connection with LFV’s current air traffic control centre. A preliminary study of remote-controlled air traffic control showed improvements in the coordination and efficiency of operations.

**Manchester Airport**

The latest figures for September show the airport’s moving annual total increased by 11% to 27.6m passengers

ADELTE has signed a contract with Manchester Airports Group (MAG) to design, manufacture and install 11 new Passenger Boarding Bridges at Manchester Airport as part of its £1bn transformation programme. The new boarding bridges will be installed by ADELTE in late 2018 and early 2019 as part of the first phase of the Manchester Airport Transformation Programme (MAN-TP). In addition to protecting passengers from exposure to the often inclement weather in the north of the UK, ADELTE’s advance systems will allow for more efficient and rapid turnarounds at Pier 1 of Terminal 2.

**Liège Airport**

Grew by 1.7% in August to 34,600 passengers

In order to support the strong growth of its freight clients, Liège Airport has stepped up its investment by committing over €20 million for new warehouses and handling facilities at the airport. Since June, Air China Cargo, the largest Chinese cargo company, has been running a weekly flight between Shanghai and Liège and it will increase its rotations in 2018. Moreover, in early October, Air Bridge Cargo decided to establish its main hub at Liège Airport.

**Lyon-Saint Exupéry Airport**

Handled 7.8m passengers in the first nine months of 2017 (+7.9%)

Vinci Airports has officially opened the new Terminal 1 (T1) facility at Lyon-Saint Exupéry Airport in France. The terminal has been used by low-cost-carriers since April 2017, but will now be open to use by all other conventional airlines. Designed by architect Rogers Stirk Harbour + Partners, the new 70,000sqm (750,000 sq ft) terminal has doubled the surface area of the airport. Although currently in use, full completion of the €215m (US$230m) project is not scheduled until summer 2018, with the opening of a link between Hall A and Hall B.

**Geneva Airport**

Experienced traffic growth in every month so far in 2017 (Jan-Oct)

Genève Aéroport has entered into a contract with public energy utility Geneva Industrial Services (SIG) to install solar panels on 50,000sqm of roof space – the equivalent of about eight football pitches. The array will produce around 7.5 GWh of electricity per year, the equivalent of the annual power consumption of 2,500 local homes. Genève Aéroport has also committed to introduce sustainable and renewable jet fuel for aircraft operations, with a target of at least one percent of the annual jet fuel consumption starting late 2018.
Munich Airport and Moscow Domodedovo Airport

In the first nine months of 2017, MUC’s traffic grew by 6% and DME’s by 8%

Munich Airport and Moscow Domodedovo have signed a sister airport agreement. The aim of the partnership is a systematic knowledge transfer for employees and managers on both sides. It will include such activities as exchange programmes that will give employees an up-close look at the daily workings and processes of the partner airport. The “sister airport agreement”, as it is known, also calls for an intensive exchange of ideas with regard to terminal planning, IT, real estate development, security and digitisation.

Sofia Airport

Handled almost 600,000 passengers in October (+20.2% year-on-year)

Stamp collectors take note! Sofia Airport celebrates its 80th anniversary this year. On the occasion, the airport launched a dedicated postage stamp. It is a miniature image of the airport, its façade reflecting the outlines of Vitosha Mountain. In support of young and talented Bulgarians, Sofia Airport chose 24-year-old artist Emilio Borata to design the stamp. The issue of the postal-philatelic edition is 11,000.

Odessa International Airport

Passed the one million passenger barrier for the first time in 2016

The outline draft of a new complex of ATC facilities at Odessa International Airport – where construction of a new runway has already started – has been approved. State aviation authorities are planning to build an air traffic management centre together with an administrative building, power plant and control tower, which will provide new modern equipment that meets European safety standards. Construction is scheduled to last 2.5 years with the total cost of the project, which also features an airport hangar, so far amounting to 1.67 billion hryvnia (US$63 million) of which 500 million have already been allocated.

Istanbul New Airport

IGA, contractor and designated operator of Istanbul New Airport, has appointed SITA to implement its innovative baggage tracking solution at what will be one of the world’s largest airports. The airport, due to open in 2018, will have capacity to accommodate 90 million passengers a year. Upon completion of all four phases, the passenger capacity will reach over 200 million passengers annually and will be required to track more than 75,000 bags an hour. The potential for bags to be mishandled in such a busy environment will be significantly reduced with SITA’s baggage solution by providing information on where every single bag is on its route through the airport.

Santorini Airport

Grew 10% in the first 10 months of 2017, welcoming over 1.8m passengers

Fraport Greece has revealed plans for the development of Santorini Airport. The modernisation and upgrades include construction of a new fire station, the expansion and remodelling of the current terminal and a reorganisation of the apron. The total size of the terminal will grow by 235% to 15,640sqm, with the replacement of a portion of the current terminal and the construction of a new one. Services within the terminal will significantly improve as well, including the doubling of check-in stations and baggage reclaim belts, more gates and an almost three-fold increase in security lanes.
Meet the European Commission’s top civil servant on transport matters, Henrik Hololei – a man very much in demand. Quite aside being the Director General of the department dealing with Transport & Mobility – DG MOVE, he is also the Chairman of the Administrative Board of SESAR. POLITICO recently named him one of the most influential Estonians in the EU sphere. Airport Business was lucky to get a slot with him and what followed was very illuminating. Interview by Elliot Bailey.
It’s rare that you get an interview slot that begins the day, but upon meeting Henrik Hololei on a bright, crisp autumnal morning, it quickly becomes clear that he is an early bird. He is good humoured, ebullient company, yet focused and never trivial about the topics under discussion. He clearly enjoys the diversity of the transport portfolio, as evidenced by the vast array of mementos from all the various forms of mobility covered by DG MOVE. Among the models of boats, cars and trains, at a brief count, I note around 25 model aircraft spread around his office. I stopped short of suggesting he needed an airport (makers of model airports, take note).

We begin with the EU aviation strategy, launched by Transport Commissioner Violeta Bulc two years ago and the essential pillar for DG MOVE’s work on aviation. Hololei explains “The Aviation Strategy is very significant. It is our license to work – it’s different from previous documents. It takes a holistic view – not just airlines. The strategy treats all the key actors of the aviation value chain in a similar manner: airlines, airports, air navigation service providers, aircraft manufacturers, lessors – they all play an important role and we want to facilitate their cooperation and participation.”

He adds “Aviation is a significant enabler of economic growth – it creates high value jobs and it also incentivises investments into research & innovation, because it is a very high-tech business. So in this way, the aviation strategy is an integral element in the wider work of what this European Commission wants to achieve within the EU and beyond.”

Are you happy with its progress? “I think without realism doesn’t make much sense. Yes, I’d like to do more, but what is frustrating is aspects that the European Commission cannot really influence. The fact that the SES2 package (ATM reform) and the revisions of EU regulations on passenger rights and airport slots are not progressing because of “an unresolved issue related to an airport in the Spanish coast” is quite scandalous. This is stalling the advancement and modernisation of so much aviation legislation. And even more so that we have not been able to sign aviation agreements that are ready and would open up market access with countries that are politically important to us, such as Ukraine.” For readers from outside the EU, this is a reference to an ongoing diplomatic disagreement between Spain and the UK regarding Gibraltar.

Hololei has many years’ experience dealing with the EU institutions (from the outside and within) as his pragmatic view makes all too clear. “Processes take time. This Commission has been focusing on making sure that proposals that are put on the table have undergone a strong impact assessment. They have to be tested by an ad hoc regulatory scrutiny board and they are subject to longer public consultations than in the past. This means that the proposals are ultimately more mature than perhaps in the past, but also better consulted. This is about delivering on the Better Regulation agenda – another priority of this Commission.”

On airline consolidation

In a year of extraordinary traffic growth, the failure of 3 well known airlines during the peak summer months (Air Berlin, Alitalia and Monarch) is still playing out in the newspapers. Hololei is informed and talks about how the airlines in question had each had issues in the recent past and that “the question was rather not ‘if’ but ‘when’. These bankruptcies support the inevitable trend towards the further consolidation of the market, as there are still too many airlines in Europe. But we also have the 3 big airline groups posting quite promising results throughout this year. Then the Low Cost Carriers keep going very strong and then some of the smaller carriers that have identified a good niche and making it work for them – Icelandair is an example here.”

The European Commission is not against consolidation, but it does have understandable concerns. “The key thing for us at the European Commission is to maintain connectivity and competition. That’s why we are keeping a
close eye on what is going on. We also trust the LCCs to provide the necessary competition and also connectivity. But there are increasingly routes which are becoming monopolistic – and that does not serve the interests of the passengers and businesses and it is clear that consolidation is playing a part in that."

He is mindful of what consolidation has done to the US airline industry: "In the US, you have the 3 big groups doing extremely well, having the highest profits in the history of aviation, but at the same time you have many routes that have become entirely monopolistic and of course this is not sustainable if you want to have a competitive market. The attitude of the 3 biggest airlines in the US has become extremely protectionist. The US is no longer a champion of liberalisation – definitely not – they are one of the most closed. The way those 3 big airline groups are attacking any third country airline that wants to enter their market is totally opposite to what one would expect from those who have done so well from liberalisation – posting record profits and so on."

At the height of the EU-US Open Skies spat regarding the US Department of Transport’s persistent hesitation to greenlight the Irish subsidiary of Fly Norwegian last year (thereby holding back proposed new transatlantic flights from Cork to Providence), Hololei famously addressed the Washington Aviation Club issuing a blunt warning that the US’ protectionism risked turning the EU-US Open Skies agreement into "a Swiss cheese".

He tells me "The cases we had with Norwegian Ireland and Norwegian UK are good examples of this protectionist attitude and I’m very glad that the US administration has followed the rule of law and the principles of the EU-US agreement and these licenses have finally been granted."

Regarding the evaluation of the Airport Charges Directive

As announced two years ago, the EU Directive of Airport Charges is currently being evaluated, against a backdrop of a particularly vicious campaign by some airlines. Hololei provided some clarity on the stage this process is at: "We have received the final report from the independent consultant (Steer-Davis-Gleaves). It’s still being analysed by my services here, in line with emerging findings that have been discussed at the Florence Airport Charges Symposium during the summer. It’s an emotionally charged piece of legislation – with economic issues, so we have to get it right. We have to maintain a continuous dialogue with both the airports and the airlines. We need to base ourselves on fact and we have to factor in the work of the Thessaloniki Forum of national regulators. In the first half of next year, we hope to be able to put something on the table that is balanced and yet, where nobody will be particularly happy with the result. If any side is happy, then we haven’t done the right job."

Since his time as Head of Cabinet for the previous Vice-President of the Commission in charge of EU Transport, Siim Kallas, Hololei has recognised that airports in Europe have become businesses in their own right and that the regulatory framework needs to encourage
their business transformation – not hold it back. When asked about airports as a business, Hololei mentions the study on airport competition published by Oxera (commissioned by ACI EUROPE). “The study is useful. When you consider the evidence, its findings about intensifying competition between airports don’t come as a big surprise to me.”

However, he makes clear that he has no time for the ongoing ‘ping-pong’ regarding airport charges between airlines and airports, most recently in a series of vicious tweets issued by one of the airline associations. He tells me “To me it’s clear that the airports and airlines are two sides to the same coin. It is very important that they continue to fully utilise the communications channels they have available to them. The best thing is when the airlines and airports are able to find common accord. It’s less good, if regulatory intervention is needed, but if that’s what it takes then we don’t shy away from getting involved and arming ourselves with the facts.”

**The need for more infrastructure**

Both sides need to bear in mind that we do not have enough infrastructure. We have all seen the Challenges of Growth studies from EUROCONTROL and what is predicted. Airports have to be able to invest – it’s inevitable. Try to build an airport today, try to build even a new runway today and you run into problems. The airlines have to understand that these investments are in their interest too – so that in 10 or 15 years, they still have somewhere to land and somewhere to take off. For that reason, the interaction between the airports and airlines has to increase – airports need to listen to airlines when they make their decisions about investments. Increased transparency can help alleviate some of the concerns of these airlines that are casting such a shadow on the airport-airline relationship.

**External relations**

One of the most talked-up aspects of the EU aviation strategy is the conversations it has initiated over liberalising traffic rights beyond Europe, with a wide variety of countries. In the era when local/national politics appear to be making a noticeable comeback, Hololei strikes a distinctly globalised tone: “External relations is a cornerstone of the Aviation Strategy. We have to be proactive in this area. Look around you. The world is changing. The fastest growth in Asia and Europe has to be a part of that change – we need to incentivise and facilitate our aviation industry. The best way to do that is through comprehensive aviation agreements – not just about traffic rights – that we negotiate at EU level and that come to replace old and often restrictive bilateral agreements. It’s about liberalising market access, but also about regulatory convergence, investment opportunities and the promotion of the European way of doing business. This is significant for airports.”

And that is certainly happening. Negotiations led by the Commission are already underway with Turkey (3 rounds done), Qatar (3 rounds done), ASEAN (4 rounds done). They have been concluded with Tunisia and Azerbaijan and the Commission hopes to begin negotiations with the UAE in the near future. “We have the capacity to run multiple negotiations at the same time, but the outcome we want to achieve is always a win-win outcome. The test is always quality of result, not necessarily the time taken.”

Hololei links this agenda not just to the route development opportunities these agreements offer to airports and the related connectivity gains for their communities – but also to the global ambitions of the major airport groups and their investments beyond Europe.

“I am very proud of the European airports that are able to invest in third countries and provide and export European know-how and quality of service. The comprehensive agreements that we seek to put in place in our external relations efforts are about supporting that. Long gone are the days when the airport sector was associated with only one location. Today’s airport groups are as global as our airline groups – they operate in all the continents of the world.”

**The B word**

External relations inevitably leads to the mention of Brexit. Hololei’s trademark enthusiasm appears to fade for a moment, when I raise the topic. “Brexit is an extremely unwanted outcome. It all makes me very sad. The UK has been an integral player in building the internal aviation market, pushing us to be proactive towards third countries and new markets. It has been very vocal and instrumental in modernising the aviation framework – it has contributed a lot, but has also benefited enormously. With regard to how Brexit will affect aviation, I don’t think there’s much to say. We all know the nature of these negotiations – it’s been said from the beginning that there will be no sectoral negotiations before the conditions for UK exit have been agreed. The current negotiations haven’t progressed sufficiently.”

And have you considered what will happen in the event of no-deal/hard Brexit scenario? “Aviation has been something that has bound us together and opened up so many possibilities. The disruptions would be very unfortunate, but unavoidable if a sensible agreement is not made. The team here has looked into all kinds of scenarios and we have a pretty good understanding of what could happen. At this stage, we need to be ready for all eventualities. But the ball is not in the EU’s court. It is the UK – they have to get their act together and define what they want in terms of aviation relationship.”

**On security**

“We have a very robust regulatory framework in place – Regulation 300 is the basis of our work and our inspections – most importantly, it has not been breached. We need to keep it that way and we need to be ready to the new threats – cyberattacks. This is the terrorism of the future, if not to say already the present day.”

Turning to the thorny matter of landslide security, Hololei replies with conviction “There are never easy solutions to landslide security, but the work goes on with authorities responsible for home affairs. It has become an internal security services issue. Airports themselves are evolving in this regard. One example I want to mention here is Brussels Airport. After the devastating and cowardly attacks in March 2016, the airport has really become the example of best practice – the way they have addressed these threats, with much more surveillance of the perimeter, but at the same time constantly thinking about throughput and passenger convenience. Some of the solutions they have developed can be implemented at other airports, so in this regard, they have really taken the lead.”

“With ACI EUROPE, we have worked very
well together to see what is needed from us from the regulatory perspective. Cooperation with ACI EUROPE on security matters has been extremely good. We have been working together to deal with challenges in this field, striking a balance between the needs of the passenger and the needs of air transport interests. A good example is the way we all worked together to defend the sector against the US' disproportionate ban on PEDs and we managed to find a good outcome – this would not have been possible if ACI EUROPE had provided not only the questions, but also the solutions.”

On SESAR

The SESAR Joint Undertaking is a subject for which Hololei reserves a special enthusiasm, in part because of his role as Chairman of the Administrative Board. He is clearly proud of his involvement with it and of the innovative solutions that have been developed and deployed so far under SESAR.

Henrik Hololei, Director General, DG MOVE: “I very much believe in SESAR. I am very proud of what they have been able to do. It is a testament to how the public and private sector can work together – and I see the solutions it has driven as part of the opportunity to export our know-how.”

Decarbonisation

Decarbonisation has a firm place in the Aviation Strategy and DG MOVE is a long time supporter of Airport Carbon Accreditation, with a representative on the programme’s independent advisory board. “The industry has been extremely engaged. Airports have been one of the first ones to take decarbonisation very seriously. Airport Carbon Accreditation is an excellent initiative and it has done well with so many airports wanting to get involved. I think it’s also important to be ready for the future – more use of sustainable, advanced biofuels for example, will penetrate the air transport sector soon. Airports need to look into, in order to be ready to provide that soon, to help the airlines reduce the primary source of their emissions. Let’s not forget, this is also the basis of aviation’s license to grow.”

On EASA

In 2015 the Commission made a set of proposals to update the EU’s aviation safety framework (i.e., the “EASA Regulation”) with changes considered necessary to future-proof Europe’s aviation system and to tackle questions like drones and cybersecurity. I ask how this is advancing and whether there will be a breakthrough any time soon. Hololei replies “I’m optimistic. I have seen a very big change in the ways of working between the Council and the European Parliament in the past half year. The current Estonian Presidency of the EU are tackling the EASA Basic Regulation with enthusiasm and so has the Parliament rapporteur and both are keen to conclude this file before the end of the year.

“Some might say that it could be done quicker, but it is a very complex file and we want to have a good outcome, one that gives long-term stability to EASA and opens up the possibilities for drones. It’s much less important if it happens six months earlier or six months later. It’s less than two years that this file has been under discussion, bear in mind, the 4th railway package took more than five years, so we’re still ahead in terms of time.”

Our time is up. I manage to sneak in one last question – returning to the matter of the Gibraltar problem and how it is holding so much aviation regulation hostage at the moment. What’s going to happen?

“Eventually, all bottlenecks get somehow resolved and I don’t think that this one will be any different. I think it’s just very unfortunate that it is taking so long to get there and we’re still not there. But I have to maintain the optimism. I think I am an optimist by nature,” he says with a beaming smile.
27th AIRPORT COMMERCIAL & RETAIL Conference & Exhibition

13-15 March 2018, InterContinental David, Tel Aviv, Israel

Hosted by:

UNRIVALLED NETWORKING AND INSPIRATION FOR AIRPORTS, TRAVEL RETAIL OPERATORS AND BRANDS

TO BOOK YOUR STAND OR TO DISCUSS SPONSORSHIP OPPORTUNITIES

Please contact Julian Bidlake on +44 1293 783 851
or email: julian@pps-publications.com

WWW.ACI-EUROPE-EVENTS.COM
Digitalisation and automation together with the deployment of more cyber technologies comes as an opportunity, but also risk facilitating the fast-evolving threat to the critical operations of air transport. Careful design and cautious systems integration are vital if airports are to become more resilient to cyberthreats. Jérôme Morandière reports.

Building resilience to escalating cyberthreats

There is an old saying, “To err is human, to forgive is divine” that has in recent years been revised by the onslaught of ever-present technology. Luddites and cynics prefer the new version “To err is human, but to really mess things up, you need to be on a computer”. This could arguably be the first humorous reference to cybersecurity, but the subject is no laughing matter. Not so long ago, it might have seemed unlikely that some seemingly harmless computer codes could be weaponised and used to disarm and disrupt so much of society. But that is precisely where we are now.

As the world comes to terms with the implications of cyberattacks, cyberbots and fake online information campaigns on the democratic process in various countries, the need for every industry to sharpen its cybersecurity strategy becomes more urgent by the month.

On the one hand, data driven operations within an integrated air transport global network present an unprecedented opportunity. Even if the past decade has seen rising update in airport-collaborative decision-making in Europe, airports, airlines, air navigation services providers (ANSPs) are still looking for fresh gains in operational efficiencies. Systems are becoming faster, more convenient, more efficient, and better integrated, but on the other hand, the potential for cyber-vulnerabilities has become more acute as well. Here are some of the ways cyberthreats can hit airports:

**Unintended malfunctions**
Unintentional malfunctions, power cuts, hardware failure represent a significant part of known cyber-events having already made their presence felt during several aviation-related activities.

• On 28 September 2017 the UK Telegraph newspaper website announced that air passengers have been suffering major disruption at airports around the world after computer check-in systems crashed.
• In February 2017 a major computer malfunction caused by a faulty hardware affected one of Europe’s largest transport hubs for hours, causing delays or cancellations of more than 100 flights.

**Intentional disruptions**
Intentional disruptions represent also a growing risk for organisations that are “ICT reliant” (e.g. growth of ransomware, attacks involving phishing techniques, information theft or data corruption etc.). Significant incidents have been reported in aviation over the last ten years:

• In July 2008 E-ticketing kiosks at Toronto Airport, using credit card authentication, were tampered with in order to steal passengers’ credit card details.
• In February 2009, The Federal Aviation Administration’s (FAA) Air-Traffic Networks were breached by attackers who obtained access to personal information.
• In 2013, a phishing scam seeking to breach US commercial aviation networks targeted no less than 75 US airports.
• The civil aircraft manufacturer Airbus Group is reportedly subject to up to 12 cyber-attacks per year, mostly in the form of ransomware and hostile actions.
• In July 2016, hackers successfully attacked Vietnam’s two largest airports and the nation’s flag carrier, Vietnam Airlines.
Luckily enough, none of these events put lives directly or indirectly at risk, but with the escalation of these incidents, how are airports and other aviation stakeholders preparing themselves?

Room for improvement

According to the latest SITA’s 2017 Air Transport IT Trends Insights, cyber security is now topping the CIO agenda, with 95% of airlines and 96% of airports planning to invest in major cybersecurity programmes over the next three years. But there is still room for improvement with only one third of boards at airlines, and a fifth at airports, having fully integrated cybersecurity into their business plans. ACI EUROPE can confirm these trends following its own surveys done in 2017. The respondents sample, a wide range of airport operators’ sizes representing together 25% of the annual traffic in and out of the EU, confirmed that a large majority recognised the risks at board level and are planning accordingly. But policies and programmes developed remain to be fully enforced; this being also explained by the difficult challenge of the resources and expertise it requires. It is worth noting that airports are more and more joining efforts and ACI EUROPE has recently set up a cybersecurity task force to facilitate information exchange, sharing of experiences, understanding and to foster development of best practices.

Growing awareness

There is growing awareness among national and supra-national entities worldwide of the need for organisations and governments to work together on this. In December 2014, the major international civil aviation stakeholders including ICAO, ACI, IATA, CANSO, ICCAIA co-signed and initiated cooperation with the “Cybersecurity Civil Aviation Action”.

In Europe, national and supra-national regulators have begun coordinating their efforts: the “first ever cybersecurity law” in the EU, the Network and Information Security (NIS) Directive 1148/2016 will be enforced at the latest as of May 2018. But the EU NIS Directive leaves open the risk for disharmonised implementation of measures and oversight requirements. Indeed, the security measures and the definition criteria for Operators of Essential Services (OES) are left to every State to decide. The EU NIS Directive allows up for sector specific rules. This means that it does not prevent a sector-specific approach as necessary, for example one that can address civil aviation safety specifics concerns. In this instance, ACI EUROPE strongly recommends the need and utmost importance that the safety critical elements of aviation flow in a consistent and coordinated way with the existing EU NIS Directive ground base requirements, recognising that aviation is only one aspect of an “airport city” activity.

Enter EASA

In 2015, the European Commission tasked the European Aviation Safety Agency (EASA) with establishing an aviation specific cybersecurity roadmap. This EASA-led plan resulted in the recent establishment of a European Strategic Coordination Platform (ESCP) that involves all the key aviation actors from EU authorities and industry, including ACI EUROPE. The work started in July 2017 and the aim is to shape European aviation cybersecurity rules and requirements for tomorrow’s safety challenges (2020 being foreseen as the horizon for the first safety rules package). The new EASA Basic Regulation 216 (currently under review at EU political level) will define a new EASA legal base and mandate for such a European rulemaking task.

The default assumption is that every organisation is exposed. However, recognising that systems/services used/delivered at airports are not all critical helps determine the areas for prioritisation. Before establishing the aviation safety regulated perimeter, the criticality of each function, operation, or service and the degree to which any system and process contribute to these functions, operations, or services will have to be defined and carefully assessed.

Furthermore, there are several other challenges that EU regulators will have to recognise and will have to overcome, such as:
1. The definition criteria for OES under the terms of the NIS Directive in each EU country may vary. Aviation stakeholders should support a full harmonisation with OES requirements arising from the transposition of the EU NIS Directive and support national and EU supranational authorities to coordinate among themselves in this respect. By empowering EASA to coordinate with the EU NIS Cooperation group and with the EU Member States authorities, it also prevents the risk of duplication, and conversely the risk of mitigation gaps too.

2. Like the industry, authorities in charge will also be concerned by the new aviation cybersecurity regime. When it comes to oversight and compliance control activities, a stakeholder-centric approach rather than a system-centric approach is preferable since it would be more efficient.

3. When it comes to aviation cybersecurity inter-organisational needs, every airport platform has a unique structure of services. And critical stakeholders in the EU (ATC, airlines, airports etc.) have already established a common and fruitful taskforce to share efforts and solve the abundant challenges more efficiently by standardising among themselves as much as possible. These efforts are on-going. In this respect, ACI EUROPE welcomes and supports EASA’s call on industry to come up with standards that may be recognised by regulators as acceptable means of compliance.

4. Traditionally aviation safety certification (e.g. airworthiness) is a lengthy process, which may be in conflict with a need for rapid implementation of mitigation measures due to the nature of cyber risks. There is an evident need to address cyber risks specific to aviation safety, so aviation stakeholders will have to collectively find a compliance mechanism that does not hinder the effectiveness and need for rapid deployment of solutions (and which may not be a “certification mechanism” at the end of the day). A different or new approach may be necessary in this respect. In addition, regulators should recognise that airport aviation safety is only one element out of other cyber risks that an airport has to cope with (e.g. some airports operate hospitals, metro or train station, energy power plants etc.). Therefore the implementation of any new cybersecurity measures for aviation safety should not weaken the effectiveness of other key services or functions at the airport.

Addressing and ensuring an appropriate cybersecurity and resilience level in aviation is first and foremost a collective responsibility, a political and a technical challenge. Let’s be clear, crafting laws and regulations in an area of rapid technological change and lightning-fast hackers is not an easy task – quite the opposite. To advance successfully, the industry must work together, most likely in a form of bottom-up approach based on the industry best practices either in development and already in existence. Counterbalancing the necessary flexibility and adaptability with an ambitious and rigorous approach will be vital. The devil is in the details.
Airport Performance delivered, from approach to departure.

www.adbsafegate.com
Governments from across the world gathered last month at COP23 in Bonn to continue the Global conversation about sustainability and climate change. Airports and other air transport stakeholders were invited to share their experience of curbing CO₂ emissions at a dedicated side-event. Aviation is the world’s first sector to set ambitious global CO₂ emissions reduction targets and airports have long been leaders in optimising their operations with carbon reductions in view and influencing others to do the same. The panellists, even though representing airports of different sizes and locations, agreed that the efforts put into reducing their CO₂ in addition to being good for the environment, led to new levels of energy savings and employee engagement. Creating these efficiencies is at the heart of Airport Carbon Accreditation, the programme empowering airports to address their emissions since 2009. Airports’ intensified climate action can be best gauged by the rising number of participants in the programme, which in October broke the record of 200 accredited airports worldwide.

Global airport industry climate action surpasses 200 milestone

To deliver on their commitment to fight Climate Change, airports worldwide are rolling up their sleeves and intensifying their efforts. More airports than ever are engaged in the Action for Climate, something which didn’t go unnoticed during the recent COP23 in Bonn. Agata Lyznik reports on the latest progress.
Breaking the 200 barrier

The honour of becoming the 200th accredited airport went to Townsville Airport in Australia, whose advanced carbon management was recognised with a Level 2 Reduction certificate, straight off the bat. The 200 airports milestone coincided with the announcement of the results for Year 8 of the programme. As is customary at this time of the year, Airports Council International (ACI) released the annual report of Airport Carbon Accreditation, showing how the global airport industry is delivering on its commitment to lower its own CO2 emissions, made in 2007. On the occasion of the release, Niclas Svenningsen, who heads the Climate Neutral Now initiative at the UNFCCC Secretariat in Bonn, Germany, commented, “People are aware of the public conversation about Climate Change between governments and the work underway to forge and implement policies that support a sustainable future, but effective climate action also relies enormously on an innovative and proactive private sector – and Airport Carbon Accreditation is a really good example of that. By providing a clear, yet ambitious framework that accommodates the multi-speed nature of airports’ efforts across the world, this is actively encouraging and stimulating a collective effort by the Global airport industry – one that is also engaging other aviation stakeholders to get involved as well. Something other industries and sectors would do well to try to foster.”

According to the report, the programme has seen a 21% growth in participation, which stood at 189 accredited airports at the end of the reporting period (May 2016-May 2017), compared to 156 airports last year. The amount of CO2 they collectively reduced this year amounted to 202,184 tonnes. If this number doesn’t grab your imagination, perhaps over 2.1 million iPhones will! The collective reduction figure would be equivalent to the CO2 emitted during their lifecycle – including production.

This year was also marked by a new stage of carbon management maturity among the participants, with the first airports outside Europe reaching the highest accreditation level of carbon neutrality. Under Airport Carbon Accreditation, carbon neutrality is defined as zero net CO2 emissions under direct control of the airport operator. To reach this level, airports must first demonstrate that they have achieved significant carbon emission reductions at the facilities they operate and have engaged other stakeholders on the airport site (airlines, ground handlers, retailers, etc.) to lower their own carbon emissions. Those efforts have been and continue to be very significant – with airports investing millions in implementing more energy-efficient infrastructure and low emissions technologies, for instance through fleets of electric cars and buses, photovoltaic parks, LED light bulbs and much, much more. It is only once such measures have been implemented that airports can move to carbon offsets to compensate for their residual emissions.

Assessment of offsets

As an increasing number of airports are now certified at Level 3 Optimisation – many are considering becoming carbon neutral (Level 3+) – the moment where carbon offsets come into play. With some evolution and enterprise in the area of climate action and carbon offsets over the past 10 years, there is a need to ensure that the rules for offsetting are robust. In this view, ACI has commissioned a study to better comprehend the carbon market and eventually update the programme guidance of Airport Carbon Accreditation. Currently, the programme relies on carbon offsetting standards whose use has been approved by the programme’s independent Advisory Board, which includes the UNFCCC, ICAO, the European Commission (DG MOVE & DG CLIMA), ECAC and others. These standards include the Clean Development Mechanism of the UNFCCC, the Verified Carbon Standard, the Gold Standard and the Climate Action Reserve.

However, with the evolution of the carbon offsets market, a qualitative review seems timely. An environmental policy consultancy, Ecofys, has been tasked with preparing the quality assessment of offsetting standards and project types. Marina Bylinsky, Head of Environmental Strategy & Intermodality at ACI EUROPE says “The comprehensive assessment by Ecofys is something we have commissioned with a view to strengthening the programme’s requirements – especially in relation to offsetting project types. We have never said that the programme is set in stone – it is evolving, and just like the Global climate action effort, it is a learning curve for us at ACI and for airports. Over the past 8 years, climate action by airports has become the norm and they are getting more ambitious about what they can do. The study currently in development will help drive that further.”

As of 28 November 2017, 208 airports worldwide are currently Airport Carbon Accredited at one of the four available levels of the programme. These airports welcome 2.9 billion passengers a year, which makes for 41.5% of the global air passenger traffic. 35% of them are carbon neutral.

Visit www.airportCO2.org to find out more.
208 accredited airports

33 in North America
118 in Europe
39 in Asia-Pacific
8 in Latin America & Caribbean
10 in Africa

Welcoming 2.9 billion passengers per year.
In 61 countries across the world.
Or 41.5% of global air passenger traffic.

Visit our interactive results website www.airportCO2.org
Airports around the world expect to spend over $8.4bn on IT this year alone, highlighting the increased importance of technology in driving new efficiency, increased security and improved passenger experience at airports globally. More importantly, it demonstrates that digital transformation of airports is well underway. Catherine Mayer, Vice-President of SITA reports on the findings on the latest trends.

Empowerment by self-service continues

The recently released Air Transport Airport IT Trends Survey 2017, co-sponsored by ACI and SITA, reveals that cybersecurity and passenger self-service technologies are the priority investment areas for major programs and resources over the next three years. The report also shows how airports are increasingly looking at emerging technologies such as single biometric tokens, sensors, and artificial intelligence (AI) to create a seamless, personalised journey for passengers.

The global proliferation of cyber risks has, unsurprisingly, made cybersecurity the number one priority for airport IT major programs or R&D investments. In fact, nearly all airports (96%) plan to invest in cybersecurity initiatives over the next three years. As airports go through their own digital transformation, the critical nature and dependency on data and systems means that any breach could be detrimental to an airport – and potentially across the highly interwoven air transport industry. Therefore, it is imperative to build solid defences.

The implementation of single token, biometric processes will surely help to expedite the uptake in this area over the coming years. Identity checks, despite being a vital element of the passenger journey, are a traditional pain point for travellers. In fact, passport control has one of the lowest satisfaction ratings of all the stages of the passenger’s journey, according to the SITA 2017 Passenger IT Trends Survey released earlier this year. However, the same survey shows that automated identity checks which use biometrics to boost passenger satisfaction at passport control and boarding.

Self-service technology gives passengers more control over ID checks throughout their journey, helping them avoid slower queues and the unpredictability of dealing with border agents. It is encouraging to know that 76% of Europe’s responding airports (61% globally) will offer automated self-service border gates by 2020.

The next step in this progression is single token travel – one token that passengers can use to navigate all touch points in their journey. With 64% of European airports (and 58% globally) planning to implement this technology within
five years, this trend is an important one to watch.

Ideally the solution should be designed to seamlessly integrate with existing airport and airline infrastructure. A passenger’s biometric details are captured – in most cases through a facial scan – at the first touch point in his/her journey. The biometric record is checked against the passenger’s travel documents and a secure single token is created. From this point they can use their biometric (face) as identification at each additional step of the journey – from check-in to the aircraft without having to show their passport or boarding pass again.

**The Internet of Things**

Another exciting trend airports are focused on is the ability to integrate, be interactive and intelligent. As 80% of the airports around the world invest in their own “IoT” (Internet of Things) and sharing of data over the next three years, they are also focusing on their interactive and data analytics abilities as well.

A total of 93% of the airports in Europe who responded stated that they would deploy interactive navigation, wayfinding, context and location aware applications within the next five years. Almost 80% of airports globally said that leveraging digital technologies, beacons and other sensor technology would allow them within the next three years to provide flight, gate, walk time or other important notifications to passengers. Almost 80% of airports globally said that leveraging digital technologies, beacons and other sensor technology would allow them within the next three years to provide flight, gate, walk time or other important notifications to passengers.

**Prepare for AI**

Another technology trend highlighted is the introduction of artificial intelligence (AI) at airports. Airports are increasingly turning to AI to support their customer service, with 45% of airports set to invest in research and development over the next five years. The technology is being introduced through business intelligence tools as mentioned previously as well as robotics, drones, and other inanimate assistants.

By 2020, 42% of airports plan to adopt AI-driven chatbot services. These computer programs, that mimic human conversation, can help with customer queries, find best transportation solutions to/from the airport, and purchase services.

At the airport, AI can also be used to manage intelligent machines for a wide range of functions from information or wayfinding, cleaning, crowd control, immigration and porter services, to airport operations and security. They can be equipped with face and recognition, understand and speak multiple languages, print or show information on screens, scan passports and boarding pass, and show people the way. And AI can also be used to integrate airport, airline, government and security systems.

These trends confirm that digital and other emerging technologies are driving efficiencies across the entire passenger journey, providing options and personalised services while enabling airport, airline and ground handling staff to focus their attention on other customer, business and operational activities.

They also highlight how IT continues to transform airports in all areas, helping them to create a safe and secure environment, unique sense of place, and personalised experiences for everyone – staff, guests and virtual visitors alike.
ACI EUROPE
Airport Traffic Analyser

the latest airport traffic ...at your fingertips

Register for free now at:

www.aci-europe.org/trafficapp
Local Heroes

In Europe, 466 regional airports in 44 countries are ACI EUROPE’s members. These airports play a pivotal role in strengthening Europe’s air connectivity and national economies. They represent 91.7% of the European airport network, with 209 carriers and 14,600 routes to 724 destinations in 2017. Federico Bonaudi spells out the value these airports bring, in ACI EUROPE’s latest publication “European Regional Airports - Connecting People, Places & Products.”

The importance and benefits of regional airports in Europe

European regional airports play a key role in supporting an efficient and well-functioning European transport network, facilitating trade and ensuring mobility for a greater number of people. This network does much more than complementing the high-speed rail network: it provides accessibility to the most remote areas and therefore access to essential services, and supports economic and social integration, local development and retention of residents.

With 209 operating carriers, 14,600 routes and 724 destinations, annual traffic has increased by 173% since the liberalisation of air traffic rights in the early 90s. Moreover, direct connectivity at regional airports has increased by almost 40% in the last 10 years. Today, regional airports handle in excess of 800 million passengers each year!

As a result, along with their larger counterparts, regional airports are now defining the economies of their communities, being true catalysts for economic regeneration and growth: 1.889.300 direct, indirect and induced jobs are created by regional airports, with a contribution of €84,5 billion to the European economy.

The new ACI EUROPE publication on European Regional Airports – Connecting People, Places & Products was released at the 26th ACI EUROPE Regional Airports’ Forum meeting on 20 November in Rovianemi.
Main challenges facing regional airports in Europe

Without a shadow of a doubt, the biggest challenge facing regional airports is managing high operating and fixed costs, CAPEX and maintenance, due to very limited economies of scale. Airports have to provide minimum equipment and staff to handle traffic at any time during operating hours, which means that the costs of human resources, provision, operation and maintenance occur even without a single flight: capacity (and not traffic) is therefore the main trigger of costs/expenses.

Increasing and more stringent regulatory requirements, airline pressure and limited European funding also play a very important role in the cost structure of regional airports. The total costs per passenger may in some cases triple those of bigger hubs.

As regional airports operate in a highly competitive market with a downward pressure on aeronautical charges, increasing commercial revenues plays a vital role. It is a well-established fact that retail, F&B, car rental, car parking, advertising and real estate are a core element of airports' income. It is generally the case also that smaller airports do not have the same commercial revenue generating opportunities as their larger counterparts: passenger profile is different and the customer base is smaller in volume.

Since growth is not guaranteed on a linear basis, regional airports need to manage their costs very effectively. In the past, it was possible for shareholders to compensate any financial gaps by additional capital injections, but this type of support is very limited nowadays. The main area for potential savings is a very strict asset management approach limiting the risk of over-capacity leading to high unproductive costs. Another area that needs to be investigated in more detail is the possibility of savings by cooperating with other airports.

Convincing an airline to establish a new air service to/from a regional airport can be a demanding and lengthy process. Negotiating with these powerful carriers and alliances remains another key challenge. Recent market developments show that air traffic growth has been predominantly driven by LCCs that exercise considerable pressure on regional airports and recently seek to move upmarket, occasionally abandoning or reducing capacity at some of their "traditional" bases at regional airports.

For regional airports, increasing the number of destinations served and attracting more passengers and cargo through the development of their route network and the diversifications of their airline portfolio is a core business imperative: liberalising market access on international routes and achieving regulatory convergence are the keys to achieve this.

Several EU Member States have introduced or plan to implement specific aviation taxes at national level. Evidence suggests that the economic impact of the taxes on the economy as a whole largely outweighs the expected return from the tax: they discourage travel, reduce the connectivity of the regions, lead to job suppression, damage the European economy as a whole and put the sector at a competitive disadvantage with other world regions.

Finally, the multiple layers of European legislation are difficult to implement for regional airports in a cost-effective manner. Legislation does not have the same economic impact on hubs and regional airports, the latter being less well-staffed and resourced to deal with the regulatory avalanche. ACI EUROPE and its Regional Airports Forum have been advocating the "one-size-does-not-fit-all" approach. While European policy-makers have often recognised the importance and the specific nature of regional airports as well as the needs stemming from them, this has not always been reflected to the full extent possible in the legislation. To download the ACI EUROPE publication European Regional Airports - Connecting People, Places & Products, go to: https://www.aci-europe.org/component/downloads/downloads/5275.html
ACI World’s APEX in Security

By Danny Boutin, Senior Manager, APEX Programmes, ACI World

On Wednesday 18 October, during the course of the ACI World Annual General Assembly (WAGA) in Mauritius, ACI launched the Airport Excellence (APEX) in Security Programme. Based on the same principles as APEX in Safety, the programme covers all aspects of Operational Security Management, with assessments being performed by peers that consist of the best airport security experts from around the world.

It was in Mauritius back in April 2016 that the very first APEX in Security pilot was conducted. Since then, five other pilot reviews have been performed in Indonesia (four reviews) and Zambia.

“I am pleased to officially launch APEX in Security, one year after having signed a Memorandum of Understanding with ICAO, which sees both organisations working more closely towards the objectives of the programme,” added Angela Gittens, Director General, ACI World.

“I hope that many airports will benefit from the knowledge, expertise and leadership of the community of airports. Every airport can benefit and every airport can contribute.”

Speaking on behalf of the President of the ICAO Council, Mam Sait Jallow, Regional Director, ICAO Western and Central Africa Office (WACAF) said: “ICAO appreciates that great progress can be achieved on the basis of the excellent cooperation established between our organisation, ACI and other industry stakeholders. This is very important today as we seek to confront and manage the challenges of sectoral growth together, and to the benefit of operators, facilities and sustainable societies all over the world. Member States remain very grateful for these proactive industry contributions and we will be looking forward to more of the same in the years ahead.”

With the continuous and evolving security threat challenging the aviation industry, and a strong demand for compliance with standards coming from the UN Security Council, ICAO and governments, it has become imperative that airports have the most effective, appropriate and cost-effective security measures in place. APEX in Security plays a key role in helping airports understand where they can improve in terms of security standards, best practice and operational efficiency and the programme can also rely on strong partnership with organisations such ICAO and the European Commission.

Indeed, after partnering with EASA over the last 2 years in conducting missions in Western and Central Africa, the European Union is also partnering with ACI to provide assistance in Africa and Middle Eastern airports in order to enhance Security Operational Management.

Furthermore, ACI EUROPE’s twinning initiative, as part of APEX in Security, aims at helping European Non-EU States achieve One-Stop Security with the European Union. The assessment will be conducted under the EU Regulations and will comprise a team of European experts.

David Ryder, Head of Aviation Security at ACI EUROPE, comments: “The launching of the APEX in Security Programme couldn’t be more timely, with the European Union and other states looking to “raise the baseline” of global aviation security. APEX in Security, working at the airport level complements the capacity building being carried out by regulators across the world. Where better to start the programme than in the European region with the first APEX in Security peer review at Tirana International Airport, Albania. The peer review of TIA will speed up the process to allow for the application by the Albanian CAA to request One Stop Security with the EU."

We invite European airports to join the programme and become APEX Partners, in both safety and security, and share their knowledge and best practices in operational management, as APEX will also start to offer safety reviews under EASA Regulation in 2018.

For more information on the APEX Programmes, contact Danny Boutin, Senior Manager, APEX Programmes at dboutin@aci.aero.
SEAMLESS AIRPORT 4.0

Orchestra™

Seamless Collaboration
Multi-Stakeholder Ecosystem
Passenger-Centric Flow Management
Privacy by Design

Dashbox™

Seamless Analytics
Digital Airport Monitoring
Real-Time Performance Data
Predictive Modelling

Inspector™

Seamless Touchpoint Control
Advanced Transaction Monitoring
User-Centered Design
Responsive Interface

Passenger Flow Orchestration
Contactless & On-the-Move Experience
One ID Journey Ready
Next Generation Common-Use Standards
Data-Informed Decision Making
Privacy by Design Compliance

See you at Passenger Terminal Expo at Stand 1652

vision-box
whatsnew@vision-box.com
www.vision-box.com

Lisbo2020
Airports around Europe are preparing for the winter season and the bad weather it can so often bring. Snow, low cloud and foggy conditions, not to mention high winds and stormy weather, can cause serious disruption to flight schedules and airport operations across the continent. SESAR, the EU’s flagship programme for modernising air traffic management, has delivered a number of solutions which are helping airports to safely maintain their capacity and runway throughput even in wintry or low-visibility conditions. This article provides an overview of just some of them.

“Winter is coming”: how airports in Europe can stay resilient to bad weather

Keeping the tarmac safe
Today, vehicle drivers rely on procedures based on the “see and avoid” principle to get around the airport safely. These conventional visual-based procedures work well when the drivers have good visibility of the runways and taxiways, but they are less effective at night or in foggy and low-visibility conditions. The SESAR designed system improves the driver’s situational awareness and issues alerts in situations where there is a risk of collision or infringement in a restricted or closed area. The system can be installed as a separate physical display in the vehicle or as an integrated application, and has several innovative functionalities. The system offers in real-time vehicle drivers with an unprecedented display of all the surrounding traffic such as aircraft, towed aircraft and other vehicles.

Preventing runway incursions
Runway Status Lights (RWSL) is a fully automatic, advisory safety system designed to reduce the number and severity of runway incursions and thus prevent runway accidents while not interfering with airport operations. The RWSL increases pilots and vehicle operators’ situational awareness by directly providing runway occupancy status through the autonomous illumination of in-pavement lights on runway and taxiways. This is particularly useful during winter when the situational awareness may be reduced. The concept of operations relies on the ability to warn at least one of the aircraft or vehicles in a conflicting scenario and, in some cases, provides additional warnings to everyone involved for increased safety. It is estimated that between 50% to 70% reduction of the most serious runway incursion occurrences can be expected thanks to this system. The solution is now implemented at Paris Charles de Gaulle Airport.

More efficient and safer taxi operations
By linking the lighting infrastructure with the taxi route management system, the “Follow the Greens” solution (also known as “guidance assistance through airfield ground lighting”) can provide a clear route for the flight crew and vehicle driver to follow during night and reduced visibility conditions. To achieve this, taxiway centre line lights are automatically and progressively switched on in segments (or individually) as the aircraft or the vehicle moves along its assigned route. Pilots and vehicle drivers receive a single instruction to ‘follow-the-greens’ from air traffic control. Specifically, it offers flight crew visual cues with which to navigate the airport rather than complex taxi clearances and maps as in current operations. The solution also decreases the number of instructions given by controllers, who also have a much better awareness of the traffic situation thanks to the additional information displayed on their working position. This increased situational awareness both in the tower and cockpit increases safety, particularly in adverse weather and low-visibility conditions. In addition, surface operations become more predictable as mobiles can taxi with increased and more regular taxi speeds, thus allowing a more accurate prediction of the taxi phase. This has a positive knock-on effect on emissions and fuel burn since flight crew can taxi with greater confidence, resulting in more constant speeds and fewer stops.

Landing in low visibility
For more than 50 years, airports around Europe have relied on instrument landing systems (ILS) to provide pilots with approach and landing guidance in low-visibility conditions. Although the system has proved to be reliable and functional, ILS is costly to maintain and has operational limitations that reduce runway capacity in certain conditions. SESAR is using ground-based augmentation of satellite navigation systems (GBAS) to improve airport resilience and capacity in such conditions. The system uses four or more global navigation satellite system (GNSS) reference receivers and a VHF broadcast transmitter. Its

SESAR Solution Catalogue
The SESAR Solution Catalogue provides an overview of the new or improved operational procedures or technologies so far delivered by SESAR to modernise the European and global ATM system. Each solution includes a range of documentation, including technical specifications, safety, performance and interoperability requirements, as well as regulatory recommendations, and human and environmental performance reports. The first edition of SESAR Solutions catalogue contains 63 Solutions, of which 24 are being deployed across Europe simultaneously (Pilot Common Project).

www.sesarju.eu

Runway Status Lights (RWSL) is a fully automatic, advisory safety system designed to reduce the number and severity of runway incursions and thus prevent runway accidents while not interfering with airport operations. Copyright: DSNA
ground systems receive positioning data from GNSS satellites, and compute error corrections based on signal quality and known fixed positions of the GNSS reference receivers. This, in turn, is broadcast to all GNSS landing system (GLS)-equipped aircraft within range. The system produces digitally-coded broadcasts which are then loaded into the aircraft’s navigation and guidance capabilities, allowing it to land automatically in low visibility conditions. In March 2017, Frankfurt Airport became the first airport in the world to fully implement GBAS precision-landings on all three of its runways.

Maintaining capacity in strong headwind conditions

Today, aircraft making their final approach to land are obliged to maintain minimum separation distances. These distances are fixed whatever the wind conditions. When keeping to these distances in strong headwinds longer gaps of time develop between aircraft. This means fewer flights landing per hour (reduced airport capacity), leading to delays and increased holding at busy times, which results in increased fuel burn. SESAR’s time-based separation (TBS) replaces current distance separations with time intervals in order to adapt to weather conditions. It provides consistent time-based spacing between arriving aircraft in order to maintain runway approach capacity. TBS entered into full-time service at London-Heathrow in March 2015 and recorded 25,000 minutes of delay saved in November of that year alone. The solution is due for synchronised deployment across Europe in accordance with the Pilot Common Project.

Staying ahead of the weather

Sharing weather information and its integration within the air traffic management decision-making process enables airspace users, airports and air navigation service providers to stay up to date with the latest weather situation, and to plan accordingly and effectively. SESAR has developed a mechanism by which meteorological data generated by European meteorological agencies can be seamlessly integrated into aeronautical information service provision. This four-dimensional (4D) weather cube (4DWxCube) is a virtual repository of shared consistent and translated meteorological information, produced by multiple meteorological service providers (METSPs) and made available to airspace management stakeholders via its system-wide information management (SWIM) compliant MET-GATE. The solution is due for synchronised deployment across Europe in accordance with the Pilot Common Project.

More predictable de-icing operations

The SESAR de-icing management tool (DMIT) refers to a system capable of improving the predictability of aircraft de-icing operations at European airports by taking data inputs from meteorological service providers and involving the relevant airport stakeholders. The solution means that air traffic controllers, airport operators and flight crew no longer need to work without situational awareness of de-icing activities and needing to make their own estimates of when aircraft are ready for departure. The solution envisages that de-icing operations are not systematically considered as adverse conditions anymore, i.e. a state that is in need of collaborative recovery procedures, but rather a part of normal operations in the winter period.

Weathering future airport operations

With SESAR 2020, the next wave of research and development activities are underway, which will further develop some of the solutions listed to improve safety, efficiency and resilience of airside operations, particularly during low visibility and adverse weather conditions. These will include more advanced safety nets for tower controllers and flight crew at the airport, enhanced guidance and routing solutions on the surface and improved runway management tools, which should be ready for deployment in the coming years. Looking towards the long-term future, SESAR researchers are also looking at how to harness emerging technologies, such as augmented and virtual reality in the management of air traffic on and around airports no matter what the weather conditions.
Another EU funding call launched for airports modernising their ATM-related investments

The European Union’s “Connecting Europe Facility” (CEF) is the key funding instrument that supports transport infrastructure investment at European level. The latest CEF call was launched on 6 October, making available €290 million for co-funding, with a specific focus on accelerating the renewal and updating of European airports’ Air Traffic Control (ATC) infrastructure. Barbora Smolikova reports.

With the support of the SESAR Deployment Airport Grouping (SDAG, part of ACI EUROPE), European airports are succeeding in obtaining public funding for their ATM investments. In the last call, 15 European airport operators secured a total of €60m in co-funding, mostly for a joint application named “Enablers for Airport Surface Movement related to Safety Net”. That application is aimed at synchronised deployment of the Advanced-Surface Movement Guidance and Control System (A-SMGCS) throughout Europe, under the leadership of Groupe ADP.

As it happens, airports are currently leading the way, in terms of joint applications. These are multi-stakeholder projects, which allow for a much more aligned, coordinated and synchronised execution and, as such, bring a more stable framework enabling airport operators to comply with the obligations in the Pilot Common Project regulation.

Next call: iAOP

The focus for airports in the next call is Initial Airport Operations Plan (iAOP), which improves the efficiency of airside operations through real-time information sharing. It has been selected by the European Commission as a priority for deployment. A joint application for iAOP is under preparation for submission, in response to the 2017 CEF Transport Call for Proposals. The joint application is coordinated by SDAG, with Brussels Airport Company as lead partner. For the moment, approximately 12 airport operators with an indicative budget of €80m of investment are participating, some with local ATC providers and, in some cases, even their home carrier. The proposal(s) will be submitted for the Innovation and Networks Executive Agency (INEA) evaluation in April 2018 (official deadline is on 12 April 2018).

Thanks to this constantly growing interest of the airport operators in possible financial support for modernisation of the ATM, SDAG noted an increased interest of airport operators in European funding programmes. SDAG will look at an assessment of the interesting and relevant possibilities that are currently available outside the CEF INEA funding for ATC.

Barbora Smolikova, SDAG Funding Expert, says “We encourage the airport operators to have a good look at their investment plans and to explore the potential EU funding available. We are open to questions for clarification and potential investigation.”

SDAG will help your airport in assessing which possible projects might be successful when submitted. You can visit the SDAG website (www.aci-europe.org/sdag.html) and contact SDAG on the following email addresses: barbora.smolikova@airportgrouping.org and luc.laveyne@aci-europe.org
IT Transformation and Turnkey Development

Paying too much for your IT?
Locked into the wrong solutions?
Facing timely delivery problems that affect your business?

Time to talk to NCR about IT Technology Partnership or Turnkey Solutions...

Inquiries: Oman +968-99148021, UAE +971-561148085
WWW.NCR.COM
OAMC’s 2020 vision: ‘Growing gateways to beauty and opportunity’

Oman Airports Management Company is hosting this year’s ACI Airport Exchange, 5-7 December, as it prepares to open The New Muscat International Airport. Ahead of the event, Sheikh Aimen Ahmed Al Hosni, CEO Oman Airports Management Company, and member of the ACI World Governing Board, shared his vision with Ross Falconer.

The Oman Airports Management Company (OAMC) five-year transformation strategy to 2020 – ‘Growing gateways to beauty and opportunity’ – works hand-in-hand with the Sultanate’s expanding tourism, transport and logistics sectors.

Development of new airport infrastructure in Muscat, Salalah, Sohar and Duqm is being undertaken with a firm socio-economic focus, as well as an emphasis on showcasing the culture and heritage of Oman.

“Our strategy is to be ranked among the top 20 airports in the world by 2020,” explains Sheikh Aimen Ahmed Al Hosni, CEO Oman Airports Management Company. “OAMC is working towards ensuring that the opening of The New Muscat International Airport is a success. My strong belief is that if we are able to maintain and improve our excellence in airport management through the facilities we provide, the tourism sector will take Oman to a whole new level of success and economic growth.”

The forthcoming opening of The New Muscat International Airport, as well as the regional airports of Sohar and Duqm, builds on the opening of Salalah Airport in 2015. Salalah, located 1,000km south of Muscat, and with a much cooler climate during the summer months, is a magnet for Omanis and other tourists from the region. This is reflected in the passenger numbers, which grew by almost 20% to 1.2 million in 2016. The year-to-date passenger figures for 2017 show continued growth. The new terminal was opened in 2015 and, following stage 2 of its expansion, the airport currently has a capacity of two million. Plans are place for stages 3 and 4 to accommodate four and six million annual passengers, when demand requires.

“A huge level of credit goes to SalamAir for its main operation in Salalah, allowing Omanis to travel to nearby destinations for an affordable price,” says Al Hosni. “A simple example I could give you would be that, initially, people from Muscat used to commute by either bus or car to Salalah as it was expensive to go by air. Now, people are opting to fly thanks to budget airlines like SalamAir. I can assure you that once The New Muscat International Airport opens, the number of flights and tourist visits will increase rapidly, allowing people from all walks of life to see and capture the essence of Oman.”
New Muscat International Airport “ready to be launched”

Passenger numbers at the existing Muscat Airport increased by 17.6% in the first eight months of 2017 to over nine million, with transfer traffic growing by approximately 30%. Oman Air has opened new routes most recently to Manchester, Nairobi and Guangzhou, stimulating the Muscat hub’s double-digit growth. Oman’s first low-cost carrier SalamAir also started operations this year, connecting Salalah and Muscat, as well as some new international routes, contributing to the growth of O&D traffic. Meanwhile, carriers from the Indian subcontinent, such as Jet Airways, Indigo and SpiceJet, have added frequencies to Muscat.

OAMC forecasts breaking its target of 14 million passengers at Muscat this year, and is now preparing for the seamless transition to the $1.8 billion (€1.5bn) New Muscat International Airport.

“I can say that The New Muscat International Airport is all ready to be launched and anytime soon one can see how welcoming and incredible it looks and feels,” Al Hosni explains. “We are sending out teasers across the world, so that people are aware and informed of this new venture. On the other hand, OAMC will be constantly monitoring and adapting The New Muscat International Airport, so as to be able to meet the demands of customers and at the same time be internationally-acclaimed. We will also be closely working towards promoting and developing our other airports – Salalah, Sohar and Duqm – so as to raise our country’s economic level and be able to put forth four well-designed and experiential airports for the world to see, observe and explore.”

A true showcase of Omani culture and heritage

In January 2017, Al Hosni was elected to represent ACI Asia-Pacific on the ACI World Governing Board. “When looking at the recognition Oman Airports has been receiving on an international level, I am ecstatic that our hard work and dedication is proving fruitful,” he comments. “ACI World electing me to be part of its board gives me great pride in saying that our country, through its ongoing airport transformations, increase in airline traffic and other related ventures, is able to share space with the world’s leading developed countries in our very own distinctive way.”

OAMC is hosting this year’s ACI Airport Exchange in Muscat, providing a perfect showcase for Oman’s airports on the international stage. “It will allow us to present to the world what we are capable of and the standards we are setting for ourselves,” Al Hosni comments. “Using this platform, we will showcase not just our upcoming new Muscat Airport, but also Salalah, Duqm and Sohar airports, which on a smaller scale are able to achieve great targets for the country. My aim is to let the world know that Oman being a developing country has big dreams and aspirations.”

Indeed, ACI Airport Exchange delegates will have the opportunity to experience The New Muscat International Airport for themselves on an exclusive tour. “Our main objectives for 2018 and beyond are to develop and transform our New Muscat International Airport into a place that ensures customer satisfaction and delight, providing a true showcase of Omani culture and heritage,” Al Hosni concludes.
Taking flight for the first time on 30 January 2017, Oman’s first low-cost carrier SalamAir has established a strong presence in its home market, now having three 174-seat A320s operating to nine destinations throughout the Middle East on either a year-round or seasonal basis. Captain Mohamed Ahmed, CEO SalamAir, briefs Jonathan Ford on the challenges and successes of establishing a new airline in Oman, and what the carrier has in store for the next five years.

SalamAir: the challenges, successes and future of the low-cost model in Oman

Entering the aviation industry is no easy feat and requires meticulous planning, starting from obtaining the licenses and securing the aircraft, all the way to getting the right partners onboard,” Captain Mohamed Ahmed, CEO SalamAir, tells Airport Business. “In addition, with the launch of every new destination, there are always country-specific protocols that need to be taken into consideration, such as aviation policies, regulations and securing the on-ground and in-flight operations handlers.”

With this in mind, it has been a very busy first 11 months for SalamAir, with Oman’s first-ever low-cost carrier (LCC) having taken flight on 30 January 2017, initially with a three times daily operation between its main base of Muscat and Salalah on Oman’s east coast. The airline has since expanded heavily in both domestic and international markets, now operating three aircraft, all configured with 174 seats, to destinations around the Middle East, including Dubai International, Jeddah and Sialkot from Muscat, while flights to Doha were the latest to launch on 22 November. SalamAir also offers an Omani domestic link between Salalah and Sohar, plus a seasonal route to Taif.

“For us at SalamAir, the last 11 months have been incredibly busy,” says Ahmed. “Thanks to the strong support we received from the Public Authority for Civil Aviation, we were able to achieve every planned milestone in our journey, in order to offer travellers in Oman and the region a more convenient and affordable travel alternative.”

A key challenge has been introducing the LCC concept to the local community and creating a positive consumer attitude towards this relatively new business model in the region.

The aviation industry in the Middle East is constantly evolving, and competition is always on the rise as new airlines enter the market. “Our performance has also evolved and developed as we become more familiar and established in the market. That said, we expect to break-even after three years of operations if everything goes according to plan,” Ahmed comments.

During its first six months, SalamAir carried over 220,000 passengers, with Ahmed hoping to see this number more than double to 500,000 for the first full year. These figures are testament to our ongoing commitment to growing Oman’s first LCC locally, regionally, and internationally. We intend to keep this momentum going.”

20 aircraft by 2022

While initial business costs remain high for SalamAir, the carrier has ambitious plans for rapid expansion, with the airline aiming to have 20 aircraft in its fleet by 2022. The strategy is to add three to four additional units per year until then. “Our focus is on short- to medium-haul operations, increasing connectivity to popular and underserved destinations within a four to five-hour flight time of our base of operations in Muscat,” Ahmed explains. “Our market research has determined that the A320 is the most suitable aircraft for our planned operations. It provides room and comfort for guests travelling with us, and fuel efficiency and fleet
Strategies for attracting and retaining airline customers

THE AIRLINE CONVERSATION

SalamAir factbox

Fleet:
three A320s

Destinations:
nine (November 2017)

Passengers (1H):
223,765

Inaugural route:
Muscat-Salah (30 January 2017)

standardisation that helps us keep a low maintenance overhead.”

Meanwhile, the airline’s aim is to increase its route network from the current eight to 65 destinations within the next five years. Next Ramadan, for example, it will bring back the Salalah-Taif seasonal route based on market demand, and connect Salalah directly to more destinations as the fleet expands. “We always keep a close eye on the market, in order to identify emerging demands and trends, as this is a key factor to remaining competitive in the current economic climate,” says Ahmed. “Additionally, we listen to our customers and follow their needs, as well as conduct our own detailed route studies before launching any new destinations. Some of these destinations are subject to traffic rights and bilateral agreements, and we are working closely with authorities to facilitate these operations.”

Building strong relationships with its airport partners is also central to the SalamAir strategy. “We champion partnerships and collaborations in which both parties can enjoy the mutual benefits of a good relationship.”

One of the most recent evolutionary changes in the Middle East aviation market is the new partnership between Emirates and flydubai, mirroring similar partnerships between airlines in Europe. “Our service complements what Oman Air offers by providing travellers with more options,” Ahmed comments. “We do collaborate with the airline on many aspects, especially ground handling, engineering and training. SalamAir and Oman Air have a common goal of serving Oman, and together we can increase connectivity to the Sultanate where the tourism industry is rapidly growing. Although discussions about partnerships have not been explored officially, it remains a valid option, as we can work together in certain areas to optimise efficiency and create value for our customers.”

SalamAir

Captain Mohamed Ahmed, CEO

SalamAir: “Our focus is on short- to medium-haul operations, increasing connectivity to popular and underserved destinations within a four to five-hour flight time of our base of operations in Muscat.”

SalamAir introduced a daily service from Muscat to Jeddah’s King Abdulaziz International Airport in April, opening up important new tourism, trade and investment opportunities.
Ad Rutten, CEO of Turnaround Terminal and former EVP & COO, Royal Schiphol Group, interviewed by Ross Falconer.

The Turnaround Terminal: “An innovative platform, and a platform for further innovation”

After having served 10 years in the Royal Netherlands Marine Corps, Ad Rutten enjoyed a 35-year career in aviation, both with KLM and Royal Schiphol Group. He was responsible for terminal and airside operations at Amsterdam Airport Schiphol as General Manager, before becoming EVP & COO of Royal Schiphol Group for the nine years preceding his retirement in 2014.

“It is very hard to name a specific highlight at a dynamic airport like Schiphol," he says. "I witnessed growth from around seven million passengers to the current 60 million, and there were highlights like opening new terminals and other infrastructure. I always felt privileged to work with the dedicated Schiphol staff and experience the innovative stance that Schiphol always has. A specific highlight just before I retired was the accommodation of the 2014 Nuclear Security Summit, which was handled flawlessly.”

Rutten was, of course, an active member of ACI, serving as President of ACI EUROPE (2009-2011) and as a member of ACI’s World Governing Board and Executive Committee.

He is presently an independent consultant, owner of Ocean Management Solutions, and CEO of Turnaround Terminal. Indeed, Rutten is participating in the Airport Development Conference at this year’s ACI Airport Exchange, where he will brief delegates on the Turnaround Terminal concept, which he describes as revolutionary for aircraft turnaround. “The terminal consists of a rotating disc and a static core,” he explains. “Aircraft park on the disc and are serviced from the core in various stages with unrivalled efficiency, and a minimal footprint, combined with double capacity compared to traditional concourses. The handling process is in sync with the sequential process of arriving aircraft.”

The initial idea for the concept of the Turnaround Terminal was developed some five years ago in a creative process, under the auspices of Royal Schiphol Group, named ‘I-Port’. It was then further developed by the company ATAI, which brought the concept to its present stage of being ready for introduction to the aviation community.

“The key message that we will convey at ACI Airport Exchange is that we have a revolutionary product,” says Rutten. “The Turnaround Terminal is like a machine aimed at efficiency rather than flexibility. It opens up a new paradigm in the landing and take-off cycle. The Turnaround Terminal is an innovative platform, but also a platform for further innovation.”

Efficiencies are said to include the need for less taxiways and less equipment, as well as less fuel consumption and reduced CO2 and NOX emissions.

The concept has not yet been tested in the market, so feedback at ACI Airport Exchange will be important. The team behind Turnaround Terminal is confident that the core of the concept – the rotating disc and static core – can be manufactured at short notice. “We don’t see major technical showstoppers,” Rutten comments. “However, the total layout of the facility has to be developed together with the customer and will depend heavily on the customer needs. This will, of course, drive the agenda for full realisation.”

“Our first ambition is introduction of the concept to the market,” he adds. “We think that ACI Airport Exchange is the appropriate environment with the presence of airports from Europe and Asia Pacific, and their specific needs in terms of efficiency and capacity, both for existing and for new airports.”

The Turnaround Terminal consists of a rotating disc and a static core. Aircraft park on the disc and are serviced from the core in various stages. The handling process is in sync with the sequential process of arriving aircraft.
Your service partner for all airport matters

- Professional, tailored Airport Management, Consulting and Training Services
- Worldwide market leader in Operational Readiness and Airport Transfer (ORAT)
- Background knowledge and expertise of the only 5-star airport in Europe
- Over 25 years of experience in the international airport consulting industry

Contact us
Mail:  ib@munich-airport.de
Phone:  +49 89 975 10215
www.munich-airport.com/international
Operational Readiness and Airport Transfer (ORAT) is one key element of successful airport development. A good project starts with planning and designing facilities that are fit for purpose. During definition, construction and commissioning, involvement of the end-user is key to ensure smooth operations later. After the opening, the focus must be on continuous improvement of airport performance and enhancement of service levels.

“Our service portfolio covers all aspects of airport and terminal planning, the commissioning of new facilities, operational planning and process engineering, profit and revenue optimisation, airport privatisation advice, tailor-made training services and comprehensive airport management services,” says Ivonne Kuger, Vice President Operations, Munich Airport International.

Munich Airport’s consulting team and Oman Airports Management Company (OAMC) have collaborated in close partnership for the past seven years on projects at both Salalah and Muscat airports. The project at Salalah Airport involved process development for airport operations, staff training for all airport stakeholders, the set-up and coordination of trial operations over a period of four months, and the successful operational transition overnight in July 2015.

“During the ORAT work at Salalah Airport, we learned that we need to calculate sufficient time for the system integration,” Kuger explains. “The lack of integration required several manual work-arounds and put pressure on the operations team. Due to changing or new requirements, especially regarding safety and security aspects, we had to adjust processes and technologies continuously during the project period. This requires a high level of flexibility of all parties involved.”

While the construction and development of Muscat’s new airport continued, Munich Airport’s consulting team took thorough care that all processes in the new airport facilities were developed, trained and tested in the existing airport to constantly improve operations. A significant amount of training has already taken place at Muscat and familiarisation of staff is well underway. “Our consulting team and the Muscat Airport stakeholder community are now in the process of proving the operational procedures in twice-weekly trial operations with volunteer passengers, thousands of bags, real aircraft and multiple scenarios, such as emergency exercises.”

“During the ORAT work at Salalah Airport, we learned that we need to calculate sufficient time for the system integration,” Kuger explains. “The lack of integration required several manual work-arounds and put pressure on the operations team. Due to changing or new requirements, especially regarding safety and security aspects, we had to adjust processes and technologies continuously during the project period. This requires a high level of flexibility of all parties involved.”

While the construction and development of Muscat’s new airport continued, Munich Airport’s consulting team took thorough care that all processes in the new airport facilities were developed, trained and tested in the existing airport to constantly improve operations. A significant amount of training has already taken place at Muscat and familiarisation of staff is well underway. “Our consulting team and the Muscat Airport stakeholder community are now in the process of proving the operational procedures in twice-weekly trial operations with volunteer passengers, thousands of bags, real aircraft and multiple scenarios, such as emergency exercises.”

Meanwhile, staff training courses, and operational and leadership training are a fundamental part of Munich Airport International’s service portfolio for the Omani airports. “We even welcomed Sheikh Aimen Ahmed Al Hosni, CEO OAMC, at Munich Airport for a comprehensive airport leadership development programme,” Kuger comments. “We have completed a total of 450 training days in airport operations and related areas.”

“About 70% of the training courses were carried out in Munich at the airport’s own Airport Academy, and on the job in its Airport Operations Centre, for example. “At Muscat Airport, we have reached the final stage and we can say the countdown for the opening has started. After the opening our consulting team will remain onsite to provide post-opening support until the operations run smoothly,” Kuger concludes.
Threat detection technology
Testing, evaluation and validation
Inspection team training

Promoting harmonisation of security standards and best practices across the globe

The number one priority of all airports is, of course, the safety and security of travellers. Progressive airports are investing in new, advanced technologies designed to enhance security while ensuring an efficient, streamlined passenger process.

With advancements in imaging technology and the anticipated increased use of 3D imaging systems, Battelle has been focusing on two key areas for development. "Firstly, we developed a standardised tool called Verif-IQ that verifies the proper image quality of advanced screening systems," explains Don LaMonaca, Business Line Manager, Infrastructure Security Business Line, Battelle. "Secondly, we developed a next-generation screener training platform called ProDetect for improving 3D image interpretation."

As the Transportation Security Administration’s primary test and evaluation service provider, Battelle views all airports as its customers. "We are on the front lines ensuring that security technology is functioning properly prior to being placed into operation," LaMonaca adds. "This may be standalone technologies, such as whole-body imaging systems at checkpoints, or complex, fully integrated, inline computed tomography systems for checked baggage screening."

Battelle also supports the evaluation of new technologies that are designed to improve security, operational efficiency, and the overall customer experience, such as Automated Screening Lanes.

"One of Battelle’s objectives is to promote harmonisation of security standards and best practices across the globe, and Europe is a very important market for us with respect to this objective," says LaMonaca. "For example, we are working with the European Civil Aviation Conference (ECAC), as well as country-specific regulatory bodies across Europe, to promote standards for image quality testing of advanced imaging systems."

Implementing an open architecture framework

Extensive laboratory testing is necessary to determine whether a given screening system meets performance requirements, such as explosives detection performance. Once a system satisfies the required performance thresholds, the configuration and performance of that system can be baselined. "Entities that purchase screening systems, including airports, should verify the configuration and performance of the systems they are buying against established baselines," LaMonaca notes.

Two drivers, among others, will play a key role in how security screening technology evolves in the future. First, the development and implementation of an open architecture framework for security technology inter-operability will greatly impact the future of screening technology. "Inter-operability will allow a step-function improvement in security capabilities by opening the market to greater innovation and allowing greater implementation of risk-based security strategies," says LaMonaca. "Second, and especially as technology inter-operability increases, the ability to leverage big data will greatly enhance security capabilities in areas such as algorithm refinement, machine learning, operations optimisation, and again aiding the implementation of risk-based security strategies."

Many new innovations are rapidly emerging onto the scene, or will be soon, such as Automated Screening Lanes and computed tomography (CT) technologies for checkpoints. "The pace of innovation and new technology adoption will accelerate under an open architecture framework, and the development and implementation of an open architecture framework for aviation security technology should be a high priority," LaMonaca adds.
Li Zhang, Chief Scientist of Aviation Security & Artificial Intelligence, Nuctech, interviewed by Ross Falconer.

At the leading edge of aviation security

There is an old saying that security is an events-driven industry. Nuctech thinks of it in a different way. “Old techniques cannot secure the new world,” says Li Zhang, Chief Scientist of Aviation Security & Artificial Intelligence, Nuctech. “Security should not be driven any more, security should be leading. In the future, we will definitely import more of the latest techniques into security inspection. We will develop faster than the terrorists, and be able to detect any threats effectively before they threaten society.”

Beijing-based Nuctech was founded 20 years ago as an offshoot of prestigious research institution Tsinghua University. Its international expansion means it now has customers in over 150 countries, with its products installed in 150 airports. Indeed, Nuctech has an increasing focus on aviation security, particularly expanding its market penetration outside China. A big breakthrough occurred this year, with the company’s latest computed tomography (CT) inspection system for checked baggage achieving the ECAC EDS Standard 3.1.

“Nuctech now has a comprehensive solution for airport security, including systems for passengers, baggage and cargo, and installed at the entrance, check-in counter, checkpoints, and across the whole terminal,” Zhang explains. “We are not only focusing on the techniques and requirements we meet today, but also getting prepared for tomorrow.”

The Nuctech portfolio includes the Keyline next generation airport security solution, Kylin CT inspection system, explosives trace detection, and various cutting-edge products for the aviation market such as the Raman inspection system, a millimetre-wave body scanner, and a dual-view X-ray inspection system.

The launch of Keyline is a response to the significant reform that aviation security is experiencing, with growing passenger throughput, changing policies, evolving threats, new technologies, and in-depth participation of manufacturers. With the ACI/IATA Smart Security vision in mind, this solution integrates the passenger experience with operating efficiency, while aiming to enhance security and help airports reduce operating costs. Based on a modular and scalable design, Keyline is designed to be deployed with equal efficiency in major international hubs and smaller regional airports to provide a comprehensive and easy checkpoint process for passengers.

Meanwhile, with regards to ground safety and the insider threat, Nuctech puts forward a risk-based and technology-driven security solution for airports.

Multidimensional CT inspection

Nuctech Kylin is a newly-developed CT inspection system, which innovatively combines the company’s dual-energy material discrimination technology with the spiral CT technology. With multidimensional information acquired by the system, it realises automated explosives, liquid explosives, and narcotics detection with what is said to be a higher probability of detection and a lower false alarm rate. Kylin can scan up to 720 bags per hour, and a single Kylin scan generates a high resolution 3D image, digital radiography or 2D image, and slice images of the scanned baggage.

“Kylin provides a 3D image with precise material information and automatic detection,” Zhang comments. “It is new
Nuctech Kylin is a newly-developed computed tomography (CT) inspection system, which innovatively combines the company’s dual-energy material discrimination technology with the spiral CT technology. The system has been approved by the Civil Aviation Administration of China (CAAC) and is under evaluation by ECAC. Nuctech is expecting to achieve EDSCB certification by the year end.

Li Zhang, Chief Scientist of Aviation Security & Artificial Intelligence, Nuctech: “Nuctech now has a comprehensive solution for airport security, including systems for passengers, baggage and cargo, and installed at the entrance, check-in counter, checkpoints, and across the whole terminal. We are not only focusing on the techniques and requirements we meet today, but also getting prepared for tomorrow.”

collaboration with airport partners

In recent months, Nuctech has secured three new contracts at airports in Europe and Asia, with the equipment scheduled to be online in early 2018. “We collaborate very closely with our airport partners,” says Zhang. “We are happy to get different ideas from the end-users, and believe it is essential that manufacturers and end-users communicate effectively. We always treat the operators as our colleagues or co-founders.”

Nuctech participated in this year’s Dubai Airport Show, where it held a workshop entitled ‘Checkpoint Smart Solution’ with customers from the region, including Dubai Airports, Abu Dhabi International Airport, Kuwait Civil Aviation Administration, Turkey’s Directorate General of Civil Aviation, Egypt’s Civil Aviation Administration, and the General Authority of Civil Aviation of Saudi Arabia.

“The smart checkpoint is a very popular concept in modern airport security. It may improve the experience of passengers and the efficiency of inspection,” Zhang explains. “This solution will be applied in many major airports in the next three years. Airports in the Middle East are interested in the latest techniques and are willing to become the earliest users of the new products.”

In its 20th anniversary year, Nuctech continues to refine its portfolio of products and solutions for airport security. Looking ahead, the company’s priorities for 2018 and beyond are “making excellent products with the most advanced techniques, providing sincere service to lead the industry forward, and cooperating with our partners to make the world a safer place,” Zhang concludes.

A single Nuctech CT system scan generates a high resolution 3D image, digital radiography or 2D image, and slice images of the scanned baggage. The system is approved by the Civil Aviation Administration of China (CAAC) and ECAC. It has been deployed at several airports in China and Europe.
HungaroControl, the Hungarian air navigation service provider (ANSP), provides air navigation services in the Hungarian airspace and – on a NATO assignment – in the upper airspace over Kosovo, trains air traffic control personnel and conducts air navigation research and development.

HungaroControl: Committed to improve safety and efficiency of air navigation services

In the past years HungaroControl has been making impressive efforts in taking part and supporting innovations to improve flight safety, increase capacity, reduce airline costs, and enhance environmental protection. Introducing Hungarian Free Route Airspace, implementing CPDLC, demonstrating a unique Remote Tower solution and providing ATC services in the upper airspace over Kosovo, are the major enhancement of that period.

Beside forming partnership with ANSPs, universities and technology providers, as a member of Frequentis SESAR Partners consortium, HungaroControl participates in the industrial research, validation and demonstration activities of SESAR 2020 as well. The consortium of Atos, HungaroControl and Frequentis aims to enhance cross-industry innovation through integrating different stakeholders in the ATM value chain. As an ANSP and main user of the developments, HungaroControl can provide essential support to industry partners working on solutions. Its support includes ATM expertise, real-life operating experience and the provision of simulation facilities.

Our achievements

Hungarian Free Route Airspace (HUFRA)

In February 2015, HungaroControl was the first in Europe to abolish the entire fixed flight route network, thus enabling airplanes to use the airspace freely, without any restrictions. The significance of the new traffic management concept is that aircraft can take the shortest possible flight path between the entry and exit points in Hungary’s airspace. According to estimates, this solution may result in potential yearly savings of 1.5 million kilometres by aircraft flying over Hungary. As a result, airlines may save nearly US$3 million worth of fuel per year, which may also lead to a reduction of CO2 emissions by more than 16 million kilograms.

Controller Pilot Data Link Communications (CPDLC)

In November 2015, HungaroControl introduced CPDLC, three years ahead of the EU deadline. The new feature enables data interchange between pilots and air traffic controllers in the form of text messages. It is expected to further improve flight safety and increase the capacity of Hungarian airspace by optimising the use of radio frequencies.

Our solutions – ready to be tailored to your needs

Remote Tower

Remote Tower aims to enable ANSPs to control airport traffic from their own buildings with the help of a virtual surface. HungaroControl’s remote tower concept has achieved considerable success on the international market. For example, the contingency centre at Dubai International Airport (DXB) is being implemented according to the proposals of a consortium of five companies, including HungaroControl.

HungaroControl’s concept is built on integrating its existing ground surveillance system with a network of distributed cameras, aiming to enhance situational awareness. The company operates an approved contingency remote tower in Budapest and a full-time remote tower in the close future.

Centre of Research, Development and Simulation (CRDS)

HungaroControl’s Centre of Research, Development and Simulation (CRDS) plays an important role in the ANSP’s innovation efforts. Operating Central Europe’s largest ATC simulation facility with its 34 controller working positions, CRDS not only supports HungaroControl, but also offers validation-based solutions, simulations, trainings and consultancy to other ANSPs. Incorporating fast-time and real-time simulation, CRDS’ validation methodology helps maximise benefits in terms of capacity, efficiency and the environment, as well as minimise safety-related risks.

Green Approach (MergeStrip)

To facilitate continuous descent approaches, HungaroControl has developed the Green Approach, a new air traffic planning concept which helps air traffic controllers to schedule arriving traffic in a more effective way, thereby reducing fuel burn, CO2 emissions, and the noise load on people living near airports.

Green Approach tool provides comprehensive visual information on the sequence of aircrafts taking into account their actual position and speed. This helps controllers to plan more efficiently, and makes their workflow more predictable. Since its introduction, Green Approach has won accolades from the airline community and has attracted significant interest from other ANSPs.
As Qatar is gearing up to receive thousands of visitors during the FIFA World Cup in 2022, boosting airport capacity is essential. Hamad International Airport’s Phase 2 expansion plan is underway, with the main priority to reduce waiting times at all airport touch points using cutting-edge technology and automation. **Engr. Badr Al-Meer, Chief Operating Officer, Hamad International Airport**, outlined developments to **Marta Dimitrova**.

**Hamad Airport setting foundations for “technology-enabled business transformation”**

An airport’s healthy development depends on multiple factors, all contributing to steady and sustainable growth. In the case of Hamad International Airport (HIA), these factors include a clear vision, a well-thought-out digital transformation plan, new alliances, strategic partnerships and a highly passenger-centric approach. Today, HIA is making the most out of changing travel trends and is benefiting from a promising economic forecast for both the region and Qatar, while also preparing to host the FIFA World Cup in 2022.

In June, the airport announced strong year-on-year growth with 19 million passengers and 980,000 tonnes of cargo handled from January to June 2017, making it its busiest six-month period yet.

"First and foremost, our growth stems from a clear vision and a sound investment strategy," explains **Engr. Badr Al-Meer, Chief Operating Officer, Hamad International Airport**. "Since its opening in 2014, HIA has stated its ambition to become a world-leading hub and our efforts across the board are directed towards this goal."

Secondly, HIA’s digital transformation is an integral part of the airport’s success. In 2016, HIA launched its ‘Smart Airport’ vision, which lays out the airport’s digital transformation plan, under the patronage of HE the Prime Minister and Minister of Interior Sheikh Abdullah bin Nasser bin Khalifa Al-Thani. The airport currently offers self-service capability for check-in, bag drop and border control checks, as well as the HIA mobile application, which supplements information desks and customer information points. Al-Meer adds that “the next step will focus on exploring the use of facial recognition, biometrics, Artificial Intelligence, robotics, and augmented and virtual reality.”

**“The airport of the future”**

Recently, to improve its digital transformation and passenger experience, while increasing operational efficiency, HIA signed strategic partnerships with both global IT provider SITA and global information and communications technology (ICT) solutions provider Huawei.

HIA’s agreement with SITA provides a framework to trial and enhance innovative passenger processing solutions, in line with HIA’s ‘Smart Airport’ vision. Passengers would be required to register their face at check-in, self-baggage drop, immigration and then finally at the automated boarding gate; hence offering a seamless journey. Additionally, SITA will also be supplying its next generation common use check-in kiosks, with bag tag printing capability.

While the partnership with SITA focuses on opportunities for transforming the passenger experience, HIA’s cooperation with Huawei is primarily aimed at evaluating ways of transforming the technology and communications infrastructure of the airport, which HIA believes to be "the foundation for technology-enabled business transformation”. "Given HIA’s ambition to become the airport of the future with a very user-centric approach, we endeavour to partner with industry leaders," says Al-Meer.

At the core of HIA’s business is achieving "operational excellence" offering passengers "five-star services and hassle-free travel experience", and Al-Meer believes that extensive research is of paramount importance. "HIA’s strengths reside in its deep understanding of our passengers, which is the result of our solid research programme aimed at studying travel behaviours, travellers’ needs and their expectations, from the smallest to the essential ones. It allows us to deliver on our commitment to offer a stress-free experience and a five-star service to all our passengers at all times."
HAMAD INTERNATIONAL AIRPORT

Engr. Badr Al-Meer, Chief Operating Officer, Hamad International Airport: “Since its opening in 2014, HIA has stated its ambition to become a world-leading hub and our efforts across the board are directed towards this goal.”

“We can achieve this thanks to the use of cutting-edge technology at check-in, security scanners and fully automated baggage systems with the capacity to handle more than 19,000 bags every hour,” continued Al-Meer. “Cutting-edge technology is integrated at every touch point at the airport and across all our facilities. The airport was designed to ensure full passenger functionality and we keep improving our services to deliver the best passenger service.”

Moreover, HIA’s growth is also due to the increase in frequency of several of its patron airlines’ weekly flights from HIA, as well as new airlines joining the network such as Indigo and US-Bangla, which started operations in early October, and SalamAir in November.

ACI Airport Carbon Accreditation Level 3 Optimisation

Environmental development is one of the four central pillars of Qatar’s National Strategy 2030. HIA’s environmental strategy is, therefore, fully aligned with the vision of its nation, as well as with international standards aimed at building a sustainable air transport industry by minimising environmental impacts while supporting economic and social advancement.

After expansion, the airport will handle more than 50 million passengers per year, whereas the completion of the second cargo terminal will enable the handling of 2.8 million tonnes of cargo per year. “Global environmental standards are embedded in our expansion plan as our target is to improve carbon efficiency per passenger by 30% by 2030 against a 2015 baseline,” Al-Meer explains.

HIA is strongly committed to minimising its consumption of natural resources, controlling emissions and managing waste carefully. “Achieving Level 3 of ACI’s Airport Carbon Accreditation programme is recognition of this commitment and we continue to build on it,” Al-Meer adds. “In terms of energy efficiency, our latest modifications to heating, lighting, ventilation and air-conditioning systems across the airport’s campus have been identified to save an estimated 4,462,600 kWh of energy per year. With rapid growth and increased passenger traffic, we also closely monitor the airport’s CO2 emissions. HIA improved the average efficiency of CO2 per passenger by 4% and per aircraft movement by 1.2% during 2015 compared to 2014, year of the opening.”

The construction process of the airport and its design are the perfect illustration of HIA’s sustainable mind-set. In order to conserve energy needed for cooling, the walls of the passenger terminal are coated with solar reflective material and the roof is insulated, and designed with overhang shading. The airport central district cooling system is 15-20% more efficient than individual cooling units. Design features, which include motion-activated escalators and moving walkways, further reduce energy demand.

Young, yet ambitious, HIA is growing fast, however managing growth comes with many challenges. Tackling those challenges will be HIA’s main priority in the coming years.

“Qatar Airways’ growing network – now connecting Doha directly to 14 new destinations – combined with HIA’s latest record of passenger traffic, aircraft movements, new foreign airlines joining our network, baggage handling, as well as the amount of cargo handled, are leading us to focus our efforts and investment on increasing the airport’s capacity, our very first challenge,” Al-Meer concludes.

Hamad International Airport

2016: 37.3 million passengers
2016 passenger traffic growth: 20.5%
2017 passenger traffic growth (1H): 8%

Key airline customers: Qatar Airways, British Airways, Turkish Airlines, Royal Air Maroc

New airline customers in 2017: Indigo Airlines, Regent Airways, US-Bangla Airlines, SalamAir, Jazeera Airways, Turkish Airlines (Cargo), Royal Jordanian (Cargo)

Number of routes: 150

Top 5 destinations: London Heathrow, Kuwait, Colombo, Bangkok, Muscat
UNIQUE REMOTE TOWER CONCEPT

GREEN APPROACH MergeStrip

CENTRE OF RESEARCH, DEVELOPMENT AND SIMULATION

COMMITTED TO BREAKTHROUGH INNOVATIONS

Shortcuts to efficiency to fix your ATM challenges

en.hungarocontrol.hu

HungaroControl Hungarian Air Navigation Services
Delivering exceptional levels of security and increased operational efficiency

Providing a seamless passenger experience is a priority for airports, and implementation of the latest technologies can play an important role in achieving this. With the new Standard 3 deployment agenda for hold baggage screening set by the European Commission, airports must adapt quickly to meet the 2020 deadline.

Smiths Detection’s ECAC Standard 3 EDS hold baggage screening system is designed to meet the industry’s new explosives detection standards. In October, the company was selected to supply the system to Munich Airport to deliver “exceptional levels of security whilst increasing operational efficiency”.

The contract comprises 25 HI-SCAN 10080 XCT advanced scanners, which amalgamate high resolution X-ray technology, computed tomography (CT) and advanced detection algorithms. Extremely sharp, full colour, high resolution images, as well as a low false alarm rate also support the greater levels of efficiency required by the new regulations.

“As to operational efficiency, our systems combine a very fast belt speed with a large rectangular tunnel that can serve a continuous throughput of up to 1,800 bags per hour,” comments Cameron Mann, Global Market Director, Aviation, Smiths Detection. “As security threats continue to evolve, the scanners can also be easily upgraded to meet future requirements.”

To be deployed in both Munich terminals, the first three scanners will be installed and fully operational by the end of this year. The remaining installations will be progressively rolled out between 2018 and 2021.

In order to achieve smooth ongoing service during the upgrade to ECAC Standard 3 at Munich Airport, Smiths Detection relies strongly on communication. “It’s all about proactive communication and responsiveness,” says Mann. “We take great pride communicating not only about the positive things we’re doing, but also share the challenges we foresee, and our approach to solving them.”

Smiths Detection was also recently selected to supply 13 of its eqo people screening solutions to Tokyo Narita International Airport. More than 20 million visitors entered Japan last year and increased visitor numbers are expected with the country to host the Rugby World Cup in 2019 and the Olympic and Paralympic Games in Tokyo in 2020. “Eqo was the natural solution, as it will improve security, productivity and passenger experience,” Mann explains.

This year, Smiths Detection also launched its unique, preventative maintenance solution – CORAL. CORAL leverages the ongoing revolution in advanced, predicative analytics and secure, remote communication connections to recommend maintenance actions. “We are speaking with many of our existing customers who would benefit from this capability to ensure their equipment is available when it is needed most,” says Mann. “We have a number of customers in Asia and the Americas who are benefiting from CORAL today.”

Looking ahead, as the deadline for upgrading to ECAC EDS Standard 3 for all European airports is fast approaching, Smiths Detection’s tendering process is well underway and the company estimates that approximately 40% of the projects have already been awarded. Airports in Japan, Morocco and Chile, for example, are keen to benefit from improved operational efficiencies through lower alarm rates compared to Standard 2 equipment. Increasing numbers of airports across Asia and Africa are also implementing ECAC EDS Standard 3. Smiths Detection is growing strongly in the Middle East, already working with Dubai International, Abu Dhabi International, and Hamad International airports. “I think it’s fair to say that our focus is truly global,” Mann concludes.
Providing environments where visitors not merely dwell, but actively engage is part of Hamad International Airport’s vision.

Five-star facilities, amenities and exceptional service combine to deliver one of the most luxurious airport experiences anywhere in the world.

Welcome to Hamad International Airport.
The Cloud-based infrastructure of the new facilities at Muscat and Salalah airports creates a platform for innovation, enabling more sophisticated passenger management through technologies including the Internet of Things and beacons. Naseer Ahmad Khan, CEO, ieon, shared his thoughts with Ross Falconer ahead of his address in the Digital Innovation & Big Data Conference at this year’s ACI Airport Exchange.

**Private Cloud-based infrastructure creating platform for innovation at Muscat and Salalah**

Muscat and Salalah airports are among the few in the world to be fully virtualised, with all systems hosted in a completely virtual computing environment. It is an approach that has created a foundation for launching next generation services to improve both operational and passenger experience.

Ieon and NCR have been working in synergy at both airports, with NCR bringing airport operational expertise and ieon bringing IT design and implementation expertise. Salalah Airport is complete and fully functional, while Muscat Airport is complete and undergoing final takeover. Ieon is currently providing 24/7 ‘third line’ IT support to both airports.

Discussing the benefits of the private Cloud-based infrastructure implemented at Muscat and Salalah, Naseer Ahmad Khan, CEO, ieon, explains that it provides a central point of management along with modularised services which, because they are standardised, are easier to manage. “This brings a huge amount of resilience and stability, and actually creates a system that is quite difficult to break,” he says. “It creates a platform for innovation and you can deploy Internet of Things-based technology, such as beacon technology, to enable a more sophisticated passenger management application. You can innovate a huge amount because you have a great foundation where you can generate and create, and put new services to production faster than ever before.”

Indeed, beacons can be used to guide passengers through each touchpoint – check-in, immigration, boarding, etc - using one cohesive platform without a complex integration of interfaces.

“When you launch a new service or new product that is going to be used by either operational staff or customers, on physical infrastructure, it has to transverse multiple layers of technology,” Khan explains. “That is called ‘New Service Creation’. Creating new services on a harmonised virtual platform makes it safer and quicker to do. As the Internet of Things and beacon technology matures, this is an environment that those services and products can be launched within much more efficiently and with a higher success rate than physical environments.”

Blockchain is another technology that has been heralded as transformational for many industries, and has the potential to streamline the entire passenger journey. A smart ticket, for example, would contain the traveller’s passport and their identity for biometric use, enabling them to walk through border control without having to see anyone. Only if that fails would they have to present their physical passport for validation.

“All the terms and conditions would be contained in your smart ticket, so it would allow you to operate within those set parameters, such as which class you want to fly, and if something goes wrong – such as a delay or cancellation – the ticket can automatically refund you,” says Khan. “For the passenger, it would provide a more efficient buying mechanism and a more seamless journey from purchase to arrival at destination.”

Based on the same model of full virtualisation and private cloud hosting at Muscat and Salalah, ieon has developed a five-year strategy for several airports in the Middle East “in which they would build a revenue generating IT infrastructure in year one, year two would break even, and by year three it would be generating profit.”

“By looking at what we have built at Muscat and Salalah, other airports can observe and learn the benefits of implementing a virtualised environment. Additionally, they can learn the benefits of leaner programme organisation, and how to implement a future-proofed, financially-efficient methodology,” Khan concludes.
Focus On - Checkpoint Security

Learn how HI-SCAN 6040 CTiX with computed tomography technology can take checkpoint security and operations to a new level.

www.smithsdetection.com
A vision for the contactless passenger journey

As many airports near passenger capacity limits, new technology could be an efficient, cost-effective way to accommodate the needs of multiple stakeholders.

Advancing the concept of the contactless passenger journey, Vision-Box has introduced the biometric Seamless Gateway concept in collaboration with Amsterdam Airport Schiphol. Indeed, it is a cornerstone of Schiphol’s ‘Digital Airport Strategy’. “As we are building, step by step, the orchestration of an end-to-end frictionless experience for all passengers, in partnership with different key stakeholders, we have designed 100% in-house a new suite of Internet of Things enabled passenger touchpoints, with the ambition to build a modular, environmentally-friendly, human-centric set of smart devices to process travellers in a contactless mode,” explains Miguel Leitmann, CEO Vision-Box.

As part of the Australian Department of Immigration and Border Protection’s Seamless Traveller programme, Vision-Box has also recently been awarded a border control project at all Australian airports, for international arrivals. “This chapter of the programme aims at generalising the use of contactless technology when crossing the border, thanks to the country’s identity management framework,” Leitmann adds. “This unique programme has the ambition to offer passport-less border control processing for 90% of incoming passengers, enabled by a future-proof privacy-by-design architecture and the latest state-of-the-art identification techniques.”

Vision-Box has identified, through different market studies and feedback from its 80+ airport customers, that automation and seamless biometric-based self-service solutions are key in overcoming the natural limits of infrastructure footprints, combined with the critical need to identify people’s movements.

“In addition, digital transformation of governments’ identity management systems is gradually unleashing the potential use of paperless, secure and trusted credentials to authenticate and verify identities at different moments, as we are exponentially in need to prove who we are to be entitled to receive a benefit in return,” Leitmann comments.

These are the pillars of the contactless passenger journey value proposition. “Privacy by design, single token, flow orchestration, contactless, on-the-move, on-the-fly, One Identity, seamless passenger walkthrough, blockchain, mobileID – a myriad of buzzwords, but what do they really mean? How do we leverage those different technologies and concepts at the service of a more efficient and effective passenger journey management, while guaranteeing security to the citizen? These are the subjects I will address during my intervention at ACI Airport Exchange, and try to make it intelligible to all of us,” Leitmann concludes.
EVOLUTION THROUGH TECHNOLOGY

IEON is a vendor independent IT consultancy with partnerships, qualifications and expertise in core technical and management areas. We devise executive strategies, deliver programmes, projects, IT architectures, reliable implementations and support operations around the world. We innovate new products to evolve travel ecosystems using the latest technologies. Our reputation is that of delivering true value through best of breed and fit for purpose solutions that have been proven to make streamline business.

www.ieon.com | Tel: +968 241 70 600 | info@ieon.com
Sanjay Khanna, CEO of Ras Al Khaimah International Airport, interviewed by Marta Dimitrova.

**Ras Al Khaimah International Airport: “The gateway to RAK’s opportunities and prosperity”**

Being the fourth-largest emirate and certainly one of the most picturesque, known for its Arabian Gulf beaches, Ras Al Khaimah continues to establish itself as a robust and growing market with a diversified economic base.

Ras Al Khaimah International Airport (RAK) is experiencing positive growth, especially this winter season, given the increased interest and marketing of the airport to European airlines and customers.

“An airport is always the prime gateway and face of a country,” says Sanjay Khanna, CEO Ras Al Khaimah International Airport. “It is a catalyst for the growth of business and tourism. Given our strong foothold in business, led by Ras Al Khaimah Tourism Development Authority (RAKTDA) and Ras Al Khaimah Economic Zone (RAKEZ), we intend to make Ras Al Khaimah International Airport the gateway to RAK’s opportunities and prosperity.”

Khanna was appointed CEO of the airport this September. “Being appointed CEO of Ras Al Khaimah International Airport is a great honour, which brings with it some interesting and exciting challenges,” he enthuses. Listing some of the initial priorities, he emphasised creating, testing and designing the implementation of short and long-term strategies, reviewing and understanding all areas of the business, determining the organisation’s allocation of resources and optimal direction, and building a strong and committed team.

Tourism is a central pillar of Ras Al Khaimah’s economic growth and diversification strategy. GDP has grown consistently over the past few years – up 4% compared to last year. “The statistics show the significant increase in hotel occupancy in Ras Al Khaimah, and the trend also indicates growth,” Khanna explains. “The increase in flights for this winter compared to last demonstrates the same. I believe that through close coordination with RAKTDA and RAKEZ, Ras Al Khaimah’s aviation sector will experience strong growth in the near future.”

In terms of attracting new airlines, Khanna describes RAK as “a sweet spot.” “We are capable of providing the right slots to carriers who value the same. Additionally, our stakeholders assist us by processing passengers at a faster pace than bigger airports, giving us a distinctive edge.”

RAK has been working closely with its hub carrier, Air Arabia, to conclude a short and long-term growth plan. Khanna shares: “We are in discussion with other airlines, who will complement Air Arabia’s operations, as well as bring point-to-point air traffic to Ras Al Khaimah.”

To respond to its ambitions of being a successful world-class airport, contributing to the long-term growth and prosperity of the airport and regional economy, RAK has invested in technological innovations to enhance the passenger experience. It recently launched a remote check-in facility for passengers, which is also capable of printing baggage tags, therefore reducing queuing time and increasing passenger satisfaction.

Moreover, the airport has introduced e-gate facilities at arrival and departure immigration, which has reduced process time to a minimum and is in line with other airports in the region. The airport also offers free Wi-Fi, allowing travellers to continue their work and social communications.

“Very soon we will be opening a pay-and-use business lounge for passengers who would like to enjoy Ras Al Khaimah Airport’s hospitality,” Khanna adds.

Looking ahead, RAK is focused on developing a meaningful partnership with airlines and wishes to grow the market and support business and tourism activities in the coming year. “The growth in the business will enable us the optimum utilisation of our current infrastructure and look into augmenting our capacities and throughput. We are keen to bring in innovative ideas and monetise the available opportunities to generate higher revenues. Last, but not least, we have a goal of making Ras Al Khaimah one of the best benchmarked airports in its category,” Khanna concludes.
AVIATION SECURITY SCREENING SOLUTIONS

STATE-OF-THE-ART CHECKPOINT, HOLD BAGGAGE AND AIR CARGO SCREENING SYSTEMS
SINGLE-SOURCE FOR COMPLEX SECURITY NEEDS
EXPERIENCED AVIATION SECURITY SCREENING LEADERS

WWW.RAPISCANSYSTEMS.COM
CRISIS AND EMERGENCY TRAINING

Michel Kenel, owner and Managing Partner, Training Expert and Scenario Engineer, Kenel & Torres, interviewed by Marta Dimitrova.

A methodological approach to crisis leadership & management

As security threats continue to evolve, it is essential that the aviation industry invests in improving the resilience of its crisis management.

Key is having the right training, at the right level, with the right scenario. “In crisis leadership courses, the main points are the counter-intuitive,” says Michel Kenel, owner and Managing Partner, Training Expert and Scenario Engineer, Kenel & Torres. “How to ensure decision making at the right level and not to extinguish operational ‘fire’. In crisis management courses the emphasis lies on how to ensure effective information exchange to create situational awareness, how to use analytical problem-solving processes, and how to lead and hold effective briefings.”

The company provides workshops and training programmes that are tailor-made for each customer, and designed to be methodologically effective and practical. “We see ourselves as personal trainers, personally responsible for our customers’ success,” Kenel comments.

Lufthansa Group, including Austrian Airlines, Brussels Airlines, Eurowings, Germanwings and Swiss, is a key customer. “Lufthansa Group wanted to harmonise the structures of its Crisis and Emergency Response Teams. They chose the model of Swiss Airlines. I, therefore, designed a methodological bottom-up approach in a total of three modules, two days each, to reach the given training objectives,” says Kenel. “In 2017, we successfully trained the team leaders in two modules. Each module consisted only of short sequences of theory; the main emphasis lies in practical training done by exercises with a variety of scenarios to challenge the participants. Additionally, we are doing an emergency exercise for Lufthansa CityLine.”

Looking ahead, Kenel is hoping to attract airports to the company’s portfolio. “An airport is an extremely complex organisation with many involved or affected stakeholders. The coordination between the crisis leadership at the top executive level and the crisis management and emergency response organisation is extremely important,” he explains. “We did a lot of research this summer, answering two questions: 1. When under pressure, crisis leaders tend to do intuitive mistakes; thus, what are the main counter-intuitives on the executive level that will ensure effective crisis response? 2. What are the most important and generic best-practices for a crisis organisation to be successful? We found very coherent answers to those questions, which makes us the very specialists in optimal solutions regarding training content, methodology and scenario. I am positive that we can provide airports with exercises, simulations, and especially with scenarios they never dreamt of, because we are used to thinking the unthinkable.”
**Increasing passenger flow and experience at security checkpoints**

To keep pace both with the rapidly-increasing number of global travellers, and evolving security threats, airports are constantly looking for ways to enhance performance and security. Rapiscan Systems relies not only on its significant industry experience, but also the insights it gains from customers, to make decisions about the technology and services that can help achieve those goals. As a result, in the past year the company has invested heavily in the areas it believes will have the most impact in strengthening its customers’ most critical security needs.

Most recently, the company added the Rapiscan TRS™ to its strong portfolio of aviation security products in response to a consistently growing number of global travellers per year. This automated tray return system was designed to increase passenger flow and improve the overall passenger experience at the checkpoints. TRS™ has proved invaluable in increasing operational efficiency by reducing manual staff handling and enabling passenger data collection for risk assessments.

In 2017, Rapiscan acquired a full portfolio of trace detection solutions that perfectly complements its current operational offerings. With this new line of trace detection technology, airports, borders and any public venues will be able to identify a wide range of explosives and narcotics faster and more efficiently than ever before. The portfolio includes six solutions to fit any situation, and complete any security infrastructure.

As is consistent with this industry, the rise of modern technology has prompted a migration towards more advanced solutions. As a result, airports around the world are looking to modernise legacy CT scanning technology and implement real-time tomography at the checkpoint. This innovative solution to security screening has proven to lower operational costs, increase throughput and security, and better equip airports for their future needs. Rapiscan’s latest RTT™ 110 has a unique design and high-resolution imaging technology capable of processing 1,800 bags per hour, to improve operational efficiency and security.

Rapiscan’s team understands that having the best technology means nothing without also having the highest global certifications and regulatory approvals. Indeed, its technology is ranked one of the most qualified in the industry for deployment in airports around the world with certification including from US Transportation Security Administration for passengers and cargo screening, ECAC/EU, France Civil Aviation Authority (STAC), UK Department for Transport for passengers, hold baggage and cargo screening, Japan Civil Aviation Bureau (JCAB), Italy ENAC, and the Airport Authority of India (AAI).
Take off with us
YOUR GATEWAY

VIP & FBO SERVICE
AMPLE SPACE
CARGO HUB
PERSONALISED SERVICE
EASY ACCESSIBILITY
STRATEGIC LOCATION
COMPETITIVE TARIFF
NO SLOT CONGESTION

مطار رأس الخيمة الدولي
Ras Al Khaimah International Airport

RAK AIRPORT LLC, P.O.BOX: 501, RAS AL KHAIMAH, UAE
TEL.: +971 7 244 8111, FAX: +971 7 244 8199, EMAIL: MARKETING@RAKAIRPORT.COM
WWW.RAKAIRPORT.COM
What makes great ORAT (Operational Readiness and Airport Transfer)?
Antonin Beurrier, CEO ADP International, Groupe ADP, will explore that question in the Airport Operations Conference at this year’s ACI Airport Exchange. He shared some insights into Groupe ADP’s international strategy with Ross Falconer.

ADP International strengthens its geographical footprint by “adding value and boosting passenger traffic”

Groupe ADP created ADP International in July. What are the international strategy and goals of Groupe ADP?
Antonin Beurrier: Groupe ADP’s Connect 2020 strategic plan aims to make international activities the group’s third main business. To achieve this goal, we will capitalise on our assets as we are one of the few airport operators worldwide to offer expertise across the entire airport value chain: airport design, master plan, engineering, operations, retail, IT, real estate, etc. So we are now going for a more integrated approach.

Over the last 12 months, Groupe ADP has been bolstering its international teams and implementing a new organisation with ADP International: a new wholly-owned subsidiary, which includes all the international business units. So the group’s three major international activities – investment, airport operations, and innovation-engineering – are now placed under one management within a single entity. ADP International brings greater coherence to roll out an integrated offering and bolstered sectoral expertise, along with closer proximity to clients.

What is your approach to managing Groupe ADP’s international portfolio?
Beurrier: The group’s expertise serves a network of 26 airports worldwide and more than 245 million passengers. We manage this portfolio with caution, carefully considering financial conditions and risks, but also in a dynamic way and with a sense of timing. For instance, in October 2016, we sold, under very good financial conditions, our equity interest in the Mexican airport operator OMA, which operates 13 Mexican gateways that include Acapulco and Monterrey. We are, however, continuing to provide technical assistance and operational advice until the end of 2018. Earlier this year, we also sold our stake in TAV Construction, as the development of the company started to differ from ADP’s core business.

As an operator, we are looking for four criteria: growth, use of Group skills, control of the asset, and profitability. As a consequence, we are more focused on complex projects in which we can provide added value, using our skills and expertise. A good example is the concession of Madagascar’s Ivato International Airport in Antananarivo and Fascene International Airport in Nosy Be, as part of a concession contract signed for a period of 28 years with the Government of the Republic of Madagascar. These two airports are expected to see their annual average passenger numbers increase by at least 5% over the coming years, and we’re going to develop routes and facilities with our partners: the Bouygues group, Colas Madagascar and Meridiam.

Groupe ADP’s ambition is to become a global leader in the design and operation of airports. How will the roll-out of the international development strategy help facilitate that?
Beurrier: Designing and managing airports with all the engineering and commercial aspects is a complex task and requires specific expertise and know-how. Groupe ADP has a long and strong track record in these fields, demonstrating a real ability to boost passenger traffic and attract new airlines, and develop commercial and real estate revenues which constitute a crucial part of the business model for an international airport. Our new organisation brings together all this expertise under one roof, enabling us to propose more integrated solutions to airport authorities and
obviously to strengthen our attractiveness.

Furthermore, the recruitment of high-level professionals such as Fernando Echegaray, former Deputy CEO of the Spanish network at Aena, who is in charge of global operations and management of Groupe ADP’s network of airports, or such as Gratien Maire, CEO of ADP Ingénierie subsidiary, is making the team truly international. In order to be more efficient in the prospection of new markets and to facilitate business development of our stakes, we have decided to open two new regional offices alongside our Middle East base, through TAV Airports, in Istanbul, the first in New York for the Americas, and the second in Hong Kong for the whole of Asia.

What are the main areas you are targeting for future international expansion?

Beurrier: Our aim is to strengthen our geographical footprint in the regions where we already operate (the Middle East, Latin America) and to develop in the regions and countries offering strong opportunities (Asia, Africa and North America). In Asia and the Middle East, higher levels of traffic growth are leading to the construction of new airports, and in South America governments are launching privatisations to adapt and expand facilities. This means that throughout the world there are a lot of opportunities to invest; however, we must focus on airports to which we can bring added value and boost passenger traffic. For instance, we are currently in discussions in Vietnam and in Cuba.

Groupe ADP has reinforced its involvement as a leading shareholder in TAV Airports, while selling its stake in TAV Construction. How do these developments fit into your overall international development strategy?

Beurrier: Groupe ADP has been a 38%-shareholder in TAV Airports since 2012 and we are very happy with this investment. We had the opportunity, by acquiring an additional 8% stake, to reinforce its involvement in the company. Now we are a leading shareholder with a 46.12% stake in the share capital of TAV Airports and TAV Airports will be fully integrated in Groupe ADP’s accounts. TAV Airports currently operates 14 airports in Turkey and around the world, and served 104 million passengers in 2016. The group is fully vertically integrated and provides all commercial services in the airports in which it operates, and provides airport services at many airports around the world.

Regarding TAV Construction, the exposure to non-airport building projects led us to proceed with the sale of its 40% stake in the holding company for an amount of €9 million.

What are the role and future of the ADP Ingénierie subsidiary, following the creation of ADP International?

Beurrier: As the engineering subsidiary of Groupe ADP, ADP Ingénierie naturally plays a leading role in the group’s new international expansion strategy. Headed by Gratien Maire, ADP Ingénierie is currently managing 80 projects worldwide and is developing a new strategy based on recent market trends, new client needs and the opportunities provided by new technologies. So this business, which historically was very focused on the Middle East region, is now more homogeneously spread across the five continents, as ADP Ingénierie strengthens its position in Asia, Africa and the Americas.

How important is innovation to the international business?

Beurrier: Innovation and new technologies are key drivers in the improvement of the airport experience for airlines and passengers. Groupe ADP has developed an overall innovation approach called ‘Innovation Hub’, allowing us each year to lead around 15 experimentation programmes dedicated to the smart airport, robotics or new mobility solutions. Some of these innovations are then implemented within the terminals at the Paris airports with the possibility that in the future they could be rolled out in the airports we manage abroad.

The sharing of know-how and expertise is crucial. That’s why we have recently renewed our cooperation agreement with Schiphol Group and Incheon International Airports Corporation, thereby extending the exchange of best practices into new areas, including innovation and digital technologies. In the same vein, we have launched ‘Play your Airport’, the first worldwide challenge to imagine the airport of the future, open to students, travellers, executives and airport staff.

Antonin Beurrier, CEO ADP International, Groupe ADP: “Groupe ADP’s Connect 2020 strategic plan aims to make international activities the group’s third main business. To achieve this goal, we will capitalise on our assets as we are one of the few airport operators worldwide to offer expertise across the entire airport value chain.” Copyright: Stéphane de Bourgès ADP
Crisis Leadership & Crisis Response

The right training at the right levels with the right scenario!

Training - Exercises - Simulations

Kenel & Torres Caldas, Hottingerstrasse 21, 8032 Zurich, Switzerland
+ 41 44 260 84 89 - info@keneltorres.org
www.keneltorres.org
As airports continue to embrace innovation to improve the passenger experience, Ryan Ghee takes a look at some of the most recent and eye-catching initiatives.

**İGA reveals baggage tracking, self-service and mobile app plans for Istanbul New Airport**

Details continue to emerge about how technology will be used to provide a positive customer experience, and optimise passenger and baggage processing at Istanbul New Airport. İGA has been appointed to implement a baggage tracking solution at the airport, which will allow airlines to meet the IATA Resolution 753 baggage tracking requirements from the very first day of operation. The solution will provide the IT infrastructure needed for airlines to track bags at key points in the journey, including check-in, transfer and arrival. Resolution 753 will become effective on 1 June 2018.

Yusuf Akçayolu, CEO of İGA Airports Construction, said: “We fully understand that having the right technology will be essential to the successful operation of the new airport and future-proofing it for decades to come. It is also critical to ensuring our passengers fully benefit from our new, world-class facilities by providing innovative systems that make the journey through the airport enjoyable and effortless.”

İGA has also revealed that passengers will be able to make use of self-service bag drop, and biometric-enabled e-gates will be installed at the border control checkpoint. Meanwhile, İGA is investing in a mobile app to provide real-time journey information and easy access to a digital loyalty programme. In addition, passengers will be able to provide real-time feedback, and request information and assistance based on their specific location in the terminal.

İstanbul New Airport is scheduled to open in 2018 and will initially be able to accommodate 90 million passengers a year, eventually rising to 200 million following all stages of construction.

**Dubai International partners with Deliveroo on food delivery service**

Dubai International (DXB) has partnered with food delivery service Deliveroo to launch a first-of-its-kind airport F&B delivery service in the region.

The initiative – named DeliverooDXB – enables passengers to have freshly-prepared food delivered straight to their boarding gate within minutes of ordering. Passengers can simply place an order on Deliveroo’s app or website, or via a link on DXB’s high-speed, free Wi-Fi service.

Eugene Barry, Executive Vice President of Dubai Airports’ Commercial and Communications Group, said: “DeliverooDXB is a truly ground-breaking service that brings an extra level of convenience to our customers. Our mission to completely reinvent the airport experience is rooted in implementing innovative concepts, as demonstrated by this partnership with the world’s best food delivery brand.

“Now passengers can receive delicious food from our food & beverage outlets while they wait to board, all made possible by the expertise of Deliveroo and our world-beating Wow-Fi service.”

The service is initially available for passengers in DXB Terminal 3, A-Gates. There are currently over 10 participating outlets including Costa, Giraffe, Café Chocolate, Picnic, Paul Bakery & Restaurant, Pulp Juice, Carluccio’s, Le Pain Quotidien and McDonald’s.

Anis Harb, Deliveroo General Manager, GCC, added: “With our riders now delivering to the gate, there is no reason to miss breakfast, lunch or dinner even when passengers may only have minutes to spare before boarding.”
Greenery creates calming ambience in FRA’s Departures Hall B

A new look for Departures Hall B at Frankfurt Airport has been unveiled, complete with green waiting areas to create a more relaxing ambience.

Departures Hall B, which is at the heart of Terminal 1, has received a complete facelift. The area is now brighter, and more open and welcoming for passengers. The project restores Departures Hall B to its traditional function as a central marketplace and meeting point at Frankfurt Airport. A new restaurant is flanked on both sides by green waiting areas. Lush greenery shields the seating areas from the bustle of the terminal. In addition, a new lighting concept immerses the waiting areas and nearby restaurant in a pleasant, warm light.

The information desk has also been renovated and provides passengers with easy access to information on departures, arrivals and the airport’s service offering.

The greenery in Departures Hall B has been introduced to help create a calmer ambience.

3D sensors to be installed across London Luton Airport

London Luton Airport has invested in 3D sensors and software to measure KPIs such as queue lengths, and waiting and processing times at passenger touchpoints across the terminal.

A total of 24 Xovis 3D sensors featuring automated queue detection will be installed. These ceiling-mounted sensors will count and track passengers anonymously, and the software will visualise the KPIs on real-time dashboards.

Kimberly Kennedy, Senior Manager Passenger Services, London Luton Airport, explained that the system will help to “streamline our processes, improve the passenger experience and increase satisfaction”.

“We are investing £150 million to transform our airport and need the most accurate and reliable technology to gather quality data,” Kennedy added.

Schiphol launches Personal Security Pass pilot project

Passengers departing from Amsterdam Airport Schiphol can now take part in the Personal Security Pass pilot project, which allows them to reserve a specific time slot to go through security.

Passengers on select flights to Schengen destinations can reserve their security pass online. They can then use a dedicated entry gate in Departure Hall 1. Applicable flights can be checked and time slots can be reserved between four days and 75 minutes before departure through the Schiphol website and app.

The thinking behind the initiative is to test whether travellers value the certainty of having a fixed time to go through security, and how it can impact processing times at the security checkpoint. If the pilot project proves successful, the Personal Security Pass will be rolled out for general use. During the pilot, 30 passengers will be able to use the dedicated entry gate every 15 minutes, and over 400 time slots will be available each day. The pilot will run until 11 December 2017.
A new wave of travel disruptors and innovators is ensuring that constant change is the new normal. In just five years’ time, regional air travel could be transformed by hybrid-electric aircraft. At least that’s the vision of Washington-based start-up Zunum Aero, which is backed by Boeing HorizonX and JetBlue Technology Ventures.

“We’re very close to that vision becoming reality,” says Sandi Adam, Chief Marketer, Zunum Aero. “We’ve been working with the FAA for three years on electric aircraft certification and we expect our first commercial aircraft to enter service as early as 2022. We’re on track – all of our milestones are being hit.”

The next big milestones are a flying test bed within two years, followed a year later by a critical design review.

Electric-vehicle batteries, similar to those manufactured by Tesla, will power the aircraft, which will initially have a range of 700 miles, extending to 1,000 miles by 2030. Electric propulsion is said to cut community and cabin noise by 75%, and emissions by 80%.

“Short-haul flights produce over 40% of aviation emissions. With our aircraft, we believe these will be largely eliminated within 20 years,” Adam comments. “Our aircraft are ‘hybrid-to-electrics’ that sip fuel only when they have to, will use even less over time as batteries upgrade, and will one day go completely without fuel. I’m pretty excited about the trajectory.”

Designed to be a commuter aircraft, the configuration will range from 10 to 50 seats, with aim of addressing a perceived gap in the regional market. Zunum Aero hopes that by routing more traffic to under-utilised regional and general aviation airports, and providing much lower operating costs, it will make air travel more efficient and convenient and simplify the door-to-door travel experience.

“There are 13,500 under-utilised airports in the US and 2,500 in the EU. We’d welcome conversations with European airports,” says Adam. “As we’re still in the development stage, we’re interested to know what airports really want from us. From our standpoint, the infrastructure changes needed at airports are minimal. All that’s needed is a way to charge the batteries, a place to store them, and the infrastructure to swap the batteries.”

Technological, digital and engineering advancements are reshaping almost every industry, and the air transport sector (and the wider travel industry for that matter) is no exception.

The return of supersonic air travel and the development of electric aircraft were both considered hugely ambitious just a few years ago, but big strides are being made with the potential to redefine the future of air travel. Uber Elevate aims to take ride sharing to the skies, and in April announced plans to trial an electric fleet with vertical take-off and landing capabilities in Dubai and Dallas-Fort Worth by 2020. Then, of course, there is Hyperloop, the brainchild of Elon Musk, who claims the concept would allow passengers to be transported at 760 miles per hour, cutting travel time between Los Angeles and San Francisco to just 35 minutes. Dubai has already commissioned a feasibility study to explore Hyperloop’s potential.

Zunum Aero, meanwhile, aims to bring electric aircraft to life in a way that opens up services to thousands of smaller regional airports, and brings sustainable air transport closer to more communities.

“We definitely see ourselves as disrupting the regional market, and it’s a market ripe for disruption,” Adam concludes.
ACI Airport Exchange 2017
Welcome to Oman

5th - 7th DEC 2017 | Muscat

It is a great pleasure for Oman Airways Management Company to host ACI Airport Exchange in Muscat in December and bring together the world’s airport community for the largest event in the ACI calendar. The three-day event, taking place at the brand new Oman Convention & Exhibition Centre from 5th - 7th December 2017, is considered one of the most important gatherings in the aviation industry, assembling hundreds of top executives from the Middle East, Europe, Asia Pacific, and the rest of the world.

Sheikh Aimen Ahmed Al Hosni
Chief Executive Officer

www.airport-exchange.com
Professional airport management made by Fraport

Share Our Expertise
90 years in the airport business

Our special skill for international consulting and training is based on:

- Daily operation of our own airport at Frankfurt and many other airports worldwide
- Flexibility via airport concessions, management contracts and consultancy projects
- Customized solutions for all airport related questions from one-source

We know exactly what we are talking about:
consulting@fraport.de  www.fraport.com/consulting
info@fraport-academy.com  www.fraport-academy.com

Gute Reise! We make it happen