

A collaborative global response

Airspace asks Angela Gittens, Director General, ACI World, why airport investment needs the right framework to facilitate capacity.



Credit: ACI

According to ICAO's most recent safety report, 2017 was the safest year on record for aviation. This outcome is the culmination of decades of fruitful collaboration among airports, air navigation services, airlines, regulators, manufacturers and other partners and stakeholders in the aviation ecosystem.

That collaboration has led the industry to better understand the vulnerabilities we face while also allowing us to improve our services to better accommodate the growth in passenger and freight demand. In addition to being the safest form of transport, the air transport industry continues to play a major role in global economic activity and the development of communities.

According to the latest ACI World Annual Traffic Report, passenger traffic posted annual growth rates above historical averages in recent years. International travel and tourism have remained irrepensible. Global passenger traffic grew 6.5% in 2016, reaching 7.7 billion passengers. Passenger numbers continued to increase robustly in 2017, reaching 8.3 billion passengers – a figure representing 7.5% growth year-over-year, one of the strongest annual growth rates on record.

In 2017, 120 million tonnes of cargo moved through airports, an encouraging increase of 7.7% from 2016 and a global record. That being said, the forecast doubling of air traffic demand in the next 16 years is a challenge for every segment of the industry. How will airports accommodate that level of growth and what can governments do to enable that accommodation?

At a minimum, three objectives must be targeted. The first is efficiency or how we can use the infrastructure we already have to the optimal extent. The second objective is protection – through policy or regulation – of the infrastructure we have so that airports have permission of stakeholders such as communities around airports to use the infrastructure to the optimal extent. The third is about building new infrastructure, finding the land for it, getting permission to use it, and paying for it.

With respect to efficiency, ACI and the industry have worked with ICAO to introduce data-driven aerodrome design provisions that enable airports to gain more capacity with existing airfield infrastructure. As well, we are working now with IATA on a strategic review of the worldwide slot guidelines with the intent to gain better use of existing airport infrastructure.

The industry has now accepted that substantial change in the way we conduct common processes at airports is required if we are to meet future demand. Protection of the infrastructure, mainly against

constraints on use due to concerns of noise, emissions and other local impacts means working with communities and governments. Airports must remain good neighbors and communities need to help by instituting responsible land-use planning. We have seen situations where local governments yield to the short-term seduction of incompatible development near airports, which ultimately leads to restrictions on airline operations or operating hours.

The aviation industry has committed itself to tough environmental stewardship goals, with airports striving for carbon neutrality and dedicating considerable resources to reduce the adverse impacts of noise on surrounding communities and to avoid degradation of local air and water quality. At the same time, airports need to become more resilient in the face of adverse weather conditions that result from climate change.

Even with advances in efficiency and the protection of the use of current infrastructure, there will still be a need for additional infrastructure, as well as replacement of old infrastructure, both of which take years to plan and construct. Globally, airports project a need of some US\$430 billion in capital expenditures to welcome the passengers of the future and provide the best experience possible.

Funding airport investment may come from the public sector, the private sector or a mix of the two. The last 30 years demonstrates that privatisation is a useful means to fund needed infrastructure development, with airports with private sector participation investing 14% more in capital expenditures than airports with only government sector participation.

Securing the overall bankability and financial sustainability of a project from the private investor perspective, however, requires setting the right legal framework from the very start of the privatisation process as well as ensuring transparent and competitive selection processes. Any economic oversight, if needed, should provide for the appropriate tools for recovering the cost of the investment including a reasonable return proportionate to the level of risk taken. Disproportionate efforts to restrict or regulate the airport business should be avoided, especially considering that airport charges have remained both stable and reasonable in response to the strong competitive pressures that now shape the airport industry.

All this just reinforces that fact that air transportation is a system, a system that works best when all stakeholders and partners work together. As an industry, to meet the challenges of the growing global demand for air services, we must continue to collaborate so that we can meet the needs of the local, regional and national communities we serve. ➤

Preparing the airspace system

Airspace asks Alexandre de Juniac, Director General, International Air Transport Association (IATA), how ANSPs can help airlines to ease capacity issues.



Credit: IATA

Air navigation service providers perform an ever-more crucial task for the global air traffic system. But the vital services they provide are set to become even more challenging in the years ahead. And as their principle customer, airlines have high expectations.

Of course, safety is the first priority of the industry, and something on which ANSPs place the highest importance. The skies are safe, and we are confident CANSO Members will continue to ensure they remain so. But beyond safety issues, there are three specific challenges facing ANSPs.

1. Service efficiency
2. Sufficient capacity provision
3. Greater openness and consultation

Efficiency can be characterised as a reliable and cost-effective service, eliminating delays and reducing fuel burn/emissions. If we take the example of Europe, in 2018 there were more than 25 million minutes of delay, a huge increase on less than 16 million in 2017 – which was itself an unacceptably high number.

Moreover, cost efficiency could also be improved. For instance, performance plan investments need to be delivered – since 2012 a total of 27% of the planned and funded investments in Europe have not been implemented.

Finally, efforts to reduce fuel burn, and therefore emissions, have also moved slowly. ATM has a huge opportunity to reduce worldwide CO₂ emissions from aviation through more sophisticated routes. Such modernization and reform would also help reduce noise and generate more capacity.

Indeed, capacity provision is an issue of great concern. Sufficient capacity means ensuring the airspace system of the future can cope with the expected increase in demand and do so with no adverse impact on the efficiency aims outlined above.

IATA's 20-year forecast suggests that more than 8 billion passengers will be flying in 20 years' time. Even allowing for an increase in the average size of airplane, that still means we could see up to 80 million flights a year. In addition, over this period we are likely to see increasing numbers of drone flights, which could add perhaps another 80 million movements into our crowded airspace.

How will ANSPs manage this increase? They will need to be more flexible and adaptable. We know growth is coming, but we also know the future is always unpredictable. We cannot be sure what new technologies and capabilities will come to the fore. ANSPs will need to bear this in mind at every level of their business – from training, to operations, staffing levels, equipment procurement and investment plans.

The third challenge I want to focus on is openness. ANSPs have to be more transparent and offer even more consultation and dialogue. That principle lies at the heart of any business that offers excellent customer service. And it is not just about airlines – ANSPs need to be more open with all stakeholders: governments, airports, the military, and the operators of the future.

Most crucially of all, ANSPs must become more open with each other. Only through cooperation and harmonisation can ANSPs remove the invisible borders in the sky that do so much to limit the efficiency and capacity of the system.

A new partnership initiative may offer the way forward to achieving these aims. For the past 18 months, a group of forward-thinking ANSPs in Europe has been working on national airspace strategies (NAS). IATA has provided technical assistance from the airspace user point of view.

In November and December 2018, the first such strategies, in Poland and Italy, were published, with the support of their respective governments. France, Spain and Bulgaria have publicly announced they will each develop a NAS. In the UK, a full review of the Future Airspace Strategy is underway, and other European ANSPs are in discussions to start similar planning.

Although the direct benefits of these strategies are yet to filter through, the consultative approach from these European ANSPs has been positive and indicates this is a concept that could be expanded.

There are certainly opportunities for states beyond Western Europe to work collaboratively on airspace modernisation. The airline community would welcome such a development.

If ANSPs can keep service efficiency at the center of their work, while preparing the industry for the future in a spirit of openness and collaboration, then I am certain that, together, we will meet and surpass the challenges of the future. ➔

World ATM Congress 2019 Conference Programme will feature a session on capacity at 11:15 on 13 March.