



Director, Aviation White Paper Project  
Aviation White Paper  
Department of Infrastructure, Transport, Regional  
Development, Communications and the Arts  
GPO Box 594  
CANBERRA ACT 2601  
Australia.

Date 30 November 2023

Dear Sir/Madam,

### **FEEDBACK ON THE AUSTRALIAN AVIATION GREEN PAPER**

The International Air Transport Association (IATA) welcomes the opportunity to comment on the Aviation Green Paper for the proposed 2024 Aviation White Paper.

IATA is the trade association for the world's airlines, representing over 320 airlines or 83% of global air traffic. IATA member airlines include many that operate flights to Australia, including Australian carriers Qantas Airways, Virgin Australia Airlines and Link Airways. IATA supports areas of aviation activity and help formulate industry policy on critical aviation issues to drive a safe, secure, and sustainable environment for aviation to flourish.

Our recommendations for the Department of Infrastructure, Transport, Regional Development, Communications, and the Art's consideration have been highlighted in the attached document.

IATA would be happy to provide further assistance to the Department in relation to the Aviation White Paper. If you require additional information, please do not hesitate to contact our Area Manager South West Pacific, Matteo Zanarini at [zanarinim@iata.org](mailto:zanarinim@iata.org).

Yours sincerely,

**Philip GOH**  
Regional Vice President  
Asia Pacific



## Submission by IATA:

Australian Government

Aviation Green Paper

30 November 2023

# Contents

|   |          |
|---|----------|
| <b>IATA Feedback to the Aviation Green Paper.....</b>   | <b>4</b> |
| Chapter 2 – Likely future directions out of 2050.....   | 4        |
| Chapter 3 - Airlines, airports, and passenger – competition, consumer protection and disability access settings ..... | 8        |
| 3.2 Consumer protections.....   | 8        |
| 3.3 Disability Access .....   | 17       |
| 3.4 Economic Regulation of Airports.....  | 20       |
| Chapter 4 - Regional and remote aviation services.....  | 33       |
| 4.1 The role of airlines and airports in supporting regional economies.....   | 33       |
| Chapter 5 - Maximising aviation’s contribution to net zero .....  | 35       |
| 5.1 Opportunities and challenges in decarbonising aviation.....   | 35       |
| 5.2 Sustainable Aviation Fuel.....  | 39       |
| 5.3 Electric and Hydrogen Powered Aviation .....  | 42       |
| Chapter 6 - Airport development planning processes and consultation mechanisms .....                                  | 45       |
| 6.1 Noise.....  | 45       |
| 6.2 Community Consultation Mechanisms .....   | 49       |
| 6.3 Land use planning on-site at airports .....   | 50       |
| Chapter 7 – General Aviation.....   | 53       |
| No comments for this section .....  | 53       |
| Chapter 8 - Fit-for-purpose agencies and regulations.....   | 54       |
| 8.1 Role of Government and Agencies.....  | 54       |
| 8.2 Safety Regulation.....  | 54       |
| 8.3 Airspace Regulation and Management .....  | 55       |
| 8.4 Agency Funding and Cost Recovery Approaches .....   | 57       |
| 8.5 “All Hazards” Regulatory Approach.....  | 58       |
| 8.6 Security Screening .....  | 58       |
| 8.7 Passenger Facilitation .....  | 59       |
| 8.8 Air Cargo Facilitation.....   | 62       |
| Chapter 9 – Emerging Aviation Technologies.....   | 64       |
| Chapter 10 - Future industry workforce .....  | 65       |
| 10.1 Current Challenges and Outlook.....  | 65       |
| 10.2 Regulatory and Cultural Barriers.....  | 66       |
| Chapter 11- International Engagement.....   | 69       |
| 11.1 Bilateral Settings.....  | 69       |
| 11.2 Foreign Investment in Australia International Airlines.....  | 69       |
| 11.3 Aviation International Engagement.....   | 69       |



# IATA Feedback to the Aviation Green Paper

## Chapter 2 – Likely future directions out of 2050

- *What emphasis should the Australian Government place on these trends to help guide the future of the sector? Are there any other trends the Australian Government could add?*

### Key Recommendations

1. The Aviation White Paper should focus on long term aviation policies to guide the future of the sector that will also address the current challenges of today.
2. Global standards and best practices underpin the ability of air transport to connect the world. A shared appreciation is crucial for success of Australian aviation, now and in the future.
3. It is vital to place emphasis on net zero initiatives, which will require coordinated efforts from the entire aviation industry (airlines, airports, air navigation service providers, manufacturers) and significant government support. IATA has published a series of roadmaps that detail the key steps necessary to make aviation net zero a success.
4. Emphasis should be placed on the growing demand of air transport and the solutions digitalisation offers for passengers and cargo at congested airports.
5. Artificial Intelligence (AI) must be considered as an overarching technology that will create new capabilities across the aviation value chain.
6. Cyber-security will be a challenge to airports, airlines, and other aviation stakeholders, and will require efficient controls and mutual understanding and harmonization on reporting.

It is timely that Australia is looking at developing an Aviation White Paper that will consider the future of the aviation sector in Australia out to 2050. It bodes well for the sector that the final document will outline future Government policies on aviation safety, competitiveness, sustainability, and efficiency to ensure the sector is positioned to deliver for the Australian travelling public and businesses.

Aviation is a key enabler for Australia and its economy. It links communities across a vast geographical area, ensuring that essential goods and services are delivered in a timely and efficient manner. Looking beyond our shores, aviation is vital in connecting Australia with the world, moving people and goods to and from Australia, thereby supporting major sectors such as tourism, manufacturing, and resources. Prior to COVID-19, aviation supported around 770,000 jobs and contributed close to US\$80 billion to Australia's GDP<sup>1</sup>.

The COVID-19 pandemic presented multiple challenges for the aviation sector. One key theme that emerged was the fragmented response to the crisis; this in turn delayed the recovery of aviation across all regions. Some of the challenges included lack of coordination between nation states in terms of measures applied, patchy collaboration and engagement between travel and health sectors, absence of transparency around risk assessments, muddled communication of measures, lack of global standard for health credentials (i.e. vaccine certificates and test results), and the collection of traveller information that was not supported by an appropriate strategic focus of government policy. As a result, the aviation sector suffered major setbacks globally. The industry demonstrated its resilience throughout the pandemic and is now experiencing a strong rebound. Aviation in Australia is expected to recover to its pre-COVID 19 levels in 2024 and grow at a steady pace thereafter<sup>2</sup>. It was a team effort that saw the sector through COVID-19, but nation states and airlines alike must avert themselves from fragmentation and divergence away from global standards and best practices. All stakeholders will need to work closely together to sustain and grow Australian aviation.

IATA highlights that close collaboration and consultation is needed with the Australian Government, airlines, airports and other key stakeholders when addressing consumer protection, accessibility and airports featured in Chapter 3 of the Aviation Green Paper. As air travel doubles by 2040, consumer needs and expectations will change as technology will evolve to enhance the travel experience. With growth in passenger volumes and demands for a better experience from the travelling public, IATA has provided recommendations on ensuring that consumer rights are addressed appropriately and effectively. Equally, accessibility provision is essential for social and economic inclusion and IATA sees the need for governments to work closely with industry and the International Civil Aviation Organization (ICAO) on aligning regulation to ensure that accessibility services are not compromised.

Furthermore, airports play an important role in ensuring infrastructure development and charges should adhere to established principles. Long term strategies are vital to ensuring neutral and transparent allocation of airport slots at the

<sup>1</sup> Source: Aviation Benefits Beyond Borders Report (2020).

<sup>2</sup> Source: IATA/ Tourism Economics Air Passenger Forecast.



world's most congested airports, where the Worldwide Airport Slot Guidelines (WASG) continues to play an important part in the slot allocation process by providing a single set of standards that apply globally. The opening of Western Sydney International Airport (WSI) will bring welcome shared demand and increased access opportunities, not only to the Greater Sydney basin, but on a national scale. However, it is critical that there be consistent application of the WASG to make efficient use of the airport's capacity.

One of the biggest challenges to consider will be sustainability and the timeline coincides well with the long-term aspirational goal for international aviation of net-zero carbon emissions by 2050, adopted by Australia and other ICAO States at the 41st ICAO Assembly in 2022. The airline industry is aligned with this goal, having committed to achieve net zero emissions by 2050 at the IATA Annual General Meeting in 2021. This year, IATA published a series of roadmaps<sup>3</sup> to detail the key steps necessary to make aviation net-zero by 2050 a success. This is accompanied by the publication of a global standard methodology to track progress toward net zero. IATA hopes that these roadmaps and methodologies will help stakeholders in Australia consider the path towards net-zero and looks forward to supporting the Government in helping the industry in Australia achieve net-zero by 2050. IATA's recommendations on these matters can be found in the response to Chapter 5.

In Chapter 8, IATA highlights and makes recommendations on how global standards underpin the ability of air transport to connect the world. This remains a core element for safety, where a comprehensive approach is needed to identify operational and emerging safety issues, focusing on improved technology, regulatory harmonisation, training, and awareness. As the skies become busier with different aircraft operations, the risk-based approach to safety will be key, rather than applying a "one-size-fits-all" approach. Emerging technologies such as the use of drones will bring many benefits to remote and regional communities, but it will be crucial for the Government to take a preventive and hard-line approach to ensure airlines are not at risk of drone impact in uncontrolled airspace. Data will also continue to be a significant regulatory theme of the future, and although there are challenges with maintaining open data and transparency, government can help industry take a proactive approach to improving safety by sharing relevant operational information.

To meet the growing demand of air transport, IATA has also made recommendations in response to Chapter 8 that outline the use of emerging biometric technologies and existing application programming interface (API) that will streamline and accelerate the free movement of both passengers and cargo. One ID standards support industry and governments in laying out a document-free process based on identity management and biometric recognition to efficiently utilise space and optimise resources. ONE Record on the other hand will change the way we handle air cargo data. Instead of focusing on transferring data from one company to another, the focus will shift to what one can do with that data. IATA sees digitalisation of both passenger and cargo operations as one of the most critical priorities to achieve efficiency and prosperity for the entire aviation value chain.

Although IATA will not be commenting in detail on Chapter 9, emerging technologies will create jobs, expand the economy, and increase competitiveness, having the potential to enhance safety, optimize operations, and reduce environmental impact in the aviation industry. The Australian government plays a vital role in facilitating international collaboration, developing regulatory frameworks, and establishing industry standards to effectively address the challenges and leverage the opportunities arising from these technological innovations.

With the increase in global passenger traffic, the industry faces challenges in the form of workforce shortages. While IATA broadly touches on workforce in Chapter 10, it remains crucial that the Australian Government engages with the education sector on establishing workforce skill pathways that address, new technologies with the aim of developing an environmentally sustainable aviation industry.

In Chapter 11, IATA also outlines why the Government should consider greater engagement with other nation states to work towards equivalent outcomes-based security measures in order to facilitate the potential to reduce the re-screening of passengers. To that effect, the recognition of equivalence under ICAO Annex 17 standards<sup>4</sup> would be a key resource when formulating the regulations that can facilitate the benefits that can arise from the recognition and acceptance of such equivalent outcomes-based security measures.

### **Additional Trends**

There are two aspects of emerging trends and technologies that will need to be addressed in more detail as these would come under the auspice of the Department of Industry, Science and Resources when monitoring and regulating Artificial Intelligence (AI) capabilities, and the Department of Home Affairs when addressing cyber security monitoring and threats. Both emerging trends have significant impacts on aviation.

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<sup>3</sup> IATA, 'Net Zero Roadmaps', 2023, Viewed on 29 November 2023, <https://www.iata.org/en/programs/environment/roadmaps/>

<sup>4</sup> Annex 17: Aviation Security, ICAO (<https://www.icao.int/security/sfp/pages/annex17.aspx>)



## Artificial Intelligence

AI may bring both benefits and risks for all industries, however, it is destined to impact on how aviation conducts business in the future. While the future of AI is hard to predict, over the short and medium term, the aviation industry has the potential to extract significant benefits from this technology. IATA published an AI White Paper in 2018 that outlined the impact of AI for the sector<sup>5</sup>.

## Cyber Security

As industry moves into a new digital era that will become ever more reliant on new and emerging technologies and the use and storage of data, cyber security and mitigating cyber-attack is becoming a critical priority of governments and business leaders globally.

Australia is not immune from cyber vulnerabilities, with recent incidents impacting both government and the private sector through data and identity theft. While we understand that the Australian Government is working tirelessly in revising the cyber security frameworks and policies, IATA believes that the aviation sector's cybersecurity should be given more detailed attention.

The airline industry relies more and more on the latest technologies which are extensively connected from ground systems to flight operations and predictive maintenance. Some are directly relevant to the safety of aircraft in flight, others are operationally important, and many directly impact the service, reputation, and financial health of the industry.

As we look out to 2050, the utilization of unmanned aircraft, artificial intelligence, biometrics, alternative fuels, and electric aircraft will become ever more prevalent. As these new technologies evolve, the aviation sector faces cyber security risk as well as a proliferation of cyber security regulations. This may potentially expand vulnerabilities and risks if not properly managed, particularly when it impacts safety, security, operations, and airworthiness. To ensure flight safety and airworthiness, the industry together with governments, need to collaborate, be transparent, and share information on shared risks.

New technology may also translate into new attack surfaces for cyber criminals and terrorists. As the attack surface increases, the industry requires a better understanding of the necessary security measures to sustain and assure safety, reliability, and resilience.

IATA supports industry-wide aviation cyber security activities to coordinate and calibrate, through advocacy, standards, services, and guidance material development, for the most appropriate level of holistic cyber maturity for the industry. IATA is also working with ICAO, on the new Cybersecurity Panel (CYSECP), that is currently contributing to the Working Group on Cybersecurity Threat and Risks (WGCTR).

IATA believes that aviation's Cyber Security Strategy should be focused on the following key main principles:

1. Communities of Trust: development of communities of trust among the different stakeholders to tackle complex challenges over aviation cyber security and resilience.
2. Information Exchange, Standards and Recommended Practices: articulation and coordination of different activities and forums in support of better awareness and information exchange as well as the development of standards and recommended practices and guidance material.
3. Center of Excellence: establishment of strong collaborations for increased knowledge and cross-pollination of ideas. IATA engages with its members, industry leaders and stakeholders to develop and subsequently communicate the IATA role and vision in global aviation cyber security.

In order to support the aviation Cyber Security strategy, IATA encourages regulators and relevant Australian authorities to undertake the following:

1. Establish a mutual understanding and harmonization of the approach to cybersecurity requirements, including reporting of cybersecurity events and incidents.
2. Support IATA Operational Safety Audit Cybersecurity for Safety, Safety and Airworthiness Standards and Recommended Practices (CSSA) development and recognize the work as permissible Means of Compliance.
3. Recognize the potential impact on safety and airworthiness of new and existing interconnected technologies and their associated supply chain who have minimal existing requirements in civil aviation regulation.
4. Recognize that some supply chain partners not bound by Civil Aviation or other critical infrastructure regulations may pose systemic risks to the aviation sector, for example technology Managed Service Providers. Recommend that Criteria be established to identify which should have cyber security regulatory oversight and how this may be achieved.

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<sup>5</sup> AI White Paper, IATA (<https://www.iata.org/contentassets/2d997082f3c84c7cba001f506edd2c2e/ai-white-paper.pdf>)



In addition to the areas that have been covered in the Aviation Green Paper, we would encourage the Australian government, through the Australian Signals Directorate, to work with the aviation industry and examine in more detail whether the regulatory framework and systems that are being built on mitigating cybersecurity risk and attacks address the emergence and utilization of new aviation technologies out to 2050 and beyond.

## Chapter 3 - Airlines, airports, and passenger – competition, consumer protection and disability access settings

### 3.2 Consumer protections

- *Should the Australian Government look to revise current consumer protection arrangements and, if so, through existing or new mechanisms?*
- *Would an expanded remit for the Airline Customer Advocate to educate customers on their legal entitlements be useful?*
- *Previous consultation processes have explored options to refine the passenger liability and insurance framework under the Civil Aviation (Carriers' Liability) Act 1959 – do stakeholders still consider amendments to this framework are needed?*
- *Would policies pursued in other jurisdictions – such as a Passenger Bill of Rights or a stronger ombudsman model – deliver benefits to Australia's aviation sector?*

#### Key Recommendations

1. The Australian model of applying general consumer practice is in many ways a global best practice. IATA encourages the Government to focus on making the existing system work better rather than undertaking fundamental reform.
2. IATA recommends that the Government considers replicating the UK's Air Passenger Travel Guide and establishes a Task Force involving Government (including delivery agencies such as the border authorities), industry [airlines, airports and Air Navigation Service Providers (ANSP's)] to develop it.
3. IATA recommends that the Government considers developing a shared accountability model for Australia and establishes a Task Force involving Government and stakeholders from across the aviation ecosystem (industry but also government delivery agencies) to develop it.
4. IATA is not aware of any country with a framework in place that brings all stakeholders together in one place with a common objective to enhance consumer outcomes and therefore there is an opportunity for Australia to innovate and create a model that the rest of the world can follow.
5. International experience shows that alternative regulatory frameworks used around the world do not deliver better outcomes for consumers.
6. Compensation-based regimes such as EU261 and the Canadian Air Passenger Protection Regulations (APPRs) increase the cost of travel and put connectivity, consumer choice and competition at risk.

#### Summary

- The Australian model of applying general consumer law to air travel can be considered as global best practice in many aspects. There is no evidence that prescriptive, aviation-specific regimes deliver improved performance in terms of delays or cancellations. IATA therefore considers that the focus for the Government should be to make the existing system work better rather than replicating practice in other regions or undertaking fundamental reform. This response document proposes a number of enhancements that IATA believes would deliver better outcomes for consumers.
- There is potential to do more around information and communication as IATA considers that well-informed consumers are empowered consumers. IATA recommends that the Government considers replicating the UK's Air Passenger Travel Guide and establish a Task Force involving Government (including delivery agencies such as the border authorities), industry [airlines, airports, and Air Navigation Service Providers (ANSPs)] to develop it.
- In order to improve performance across the aviation ecosystem, Australia should develop a model of shared responsibility to better align accountability for performance with control / influence. The aim of any consumer protection regime should not be to ensure that the right incentives are in place so that all stakeholders are motivated to work (including collaboratively) to address the root cause of disruption. Shared accountability can take a variety of forms from publication of performance data to the principle of shared accountability being incorporated into regulatory frameworks. IATA recommends that the Government considers developing a model for consumer protections based on the core principle of shared accountability. It is crucial for aviation stakeholders to be united around this core principle, following which a Task Force involving Government and stakeholders from across the aviation ecosystem (industry but also government delivery agencies) can then be set up to develop the model.
- The governance underpinning consumer rights in Australia should evolve to ensure that it includes all relevant stakeholders. IATA is not aware of any country with a framework in place that regularly brings all stakeholders





together in one place with a common objective to enhance consumer welfare. Therefore, there is an opportunity for Australia to innovate and create a model that the rest of the world can follow.

- International experience shows that alternative regulatory frameworks used around the world do not deliver better outcomes for consumers because: they do not have a primary focus on effective information and communication, which is the first priority of consumers when things go wrong; they do not incorporate the principle of shared accountability, thus breaking the link between performance and liability, and they do not have governance frameworks in place that regularly bring all relevant stakeholders together in a single forum tasked with promoting the consumer interest.
- Prescriptive, compensation-based regimes such as EU261 and the Canadian Air Passenger Protection Regulations (APPRs) increase the cost of travel and put connectivity, consumer choice and competition at risk. Analysis carried out for the European Commission indicated that the cost to airlines of EU261 totalled AU\$8.9 billion in 2018<sup>6</sup>. Similarly, the APPRs are estimated to cost airlines AU\$ 340 million in 2023 with proposed changes potentially increasing this liability to AU\$ 1.25 billion. Given the thin margins in the airline industry, consumer costs are inevitably impacted with a disproportionate impact on the most price sensitive consumers and the viability of the most economically marginal routes, with regional connectivity particularly affected.

**Consumer Protection frameworks should seek to strike a balance between protecting consumer rights and promoting consumer value, connectivity, choice and competition.**

Economic deregulation of the airline industry has brought huge consumer benefits over many decades, increasing consumer choice, reducing fares, expanding route networks and encouraging new entrants. This is especially true for a nation like Australia with its population scattered across a vast area that is geographically remote and that depends on aviation as an essential transportation mode. Further, Australia's main airports act as major connecting gateways to Asia Pacific, Europe, USA, and the Pacific Island nations.

The vibrant aviation market in Australia has been made possible thus far by the approach that Australia adopts on consumer protection, ensuring that there is a good balance between protecting consumer rights and not overburdening airlines so that they are able to offer a wide range of air services to the Australian public.

IATA supports airlines in their commitment to ensure the safety and comfort of passengers and recognise the need for passengers to have access to basic protections during their journey. To that end, IATA members have affirmed a set of core principles on consumer protection<sup>7</sup> that aim to strike a balance between protecting passengers while maintaining industry competitiveness and recognising the power of the marketplace. The core principles were developed in accordance with the Montreal Convention 1999<sup>8</sup>, to which Australia has been a party since ratification in 2009.

Through the core principles, IATA and its members recognise the rights of passengers to care and assistance and re-routings and refunds where delays, denied boarding or cancellations occur within the airline's control. Airlines also commit to employing their best efforts to keep passengers regularly informed in the event of a service disruption, as well as the establishment and maintenance of efficient complaint handling procedures that are clearly communicated to passengers.

To help the airlines continue to provide increased connectivity and choice for consumers, IATA and its members call on governments to allow airlines the ability to differentiate themselves through individual customer service offerings, thereby giving consumers the freedom to choose an airline that corresponds with their desired price and service standards. IATA and its members also recommend that governments acknowledge voluntary industry commitments such as those enshrined in the IATA core principles in its consideration of the need for legislation.

**The Australian approach to consumer protection generally works well. The focus of the Government should be on enhancement rather than fundamental reform**

Australia continues to be a positive example in its approach to consumer protection around the world. The Australian Consumer Law (ACL) framework enables Australian consumers to choose and pay for the aviation products they want and ensures that airlines respond promptly to complaints or service concerns that are raised by the travelling public. The ACL also provides a channel for complaint resolution for matters that are unresolved by airlines, which in extreme cases of the business contravening legislation, can lead to a range of sanctions including criminal and civil penalties.

The ACL provisions offer remedies for consumers if a business fails to provide a service or deliver it with due care. In such cases, consumers have the right to either receive a refund for the service's cost or have the problem fixed and the service

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<sup>6</sup> European Commission, 'Study on the current level of protection of air passenger rights in the EU', January 2020, viewed on 29 November 2023, <https://www.sipotra.it/wp-content/uploads/2020/01/Study-on-the-current-level-of-protection-of-air-passenger-rights-in-the-EU.pdf>

<sup>7</sup> Core Principles on Consumer Protection, IATA ([https://www.iata.org/contentassets/2e46aace261040b9a47fb7b9da18efc9/consumer\\_protection\\_principles.pdf](https://www.iata.org/contentassets/2e46aace261040b9a47fb7b9da18efc9/consumer_protection_principles.pdf))

<sup>8</sup> The Montreal Convention 1999 (MC99), IATA (<https://www.iata.org/en/programs/passenger/mc99/>)

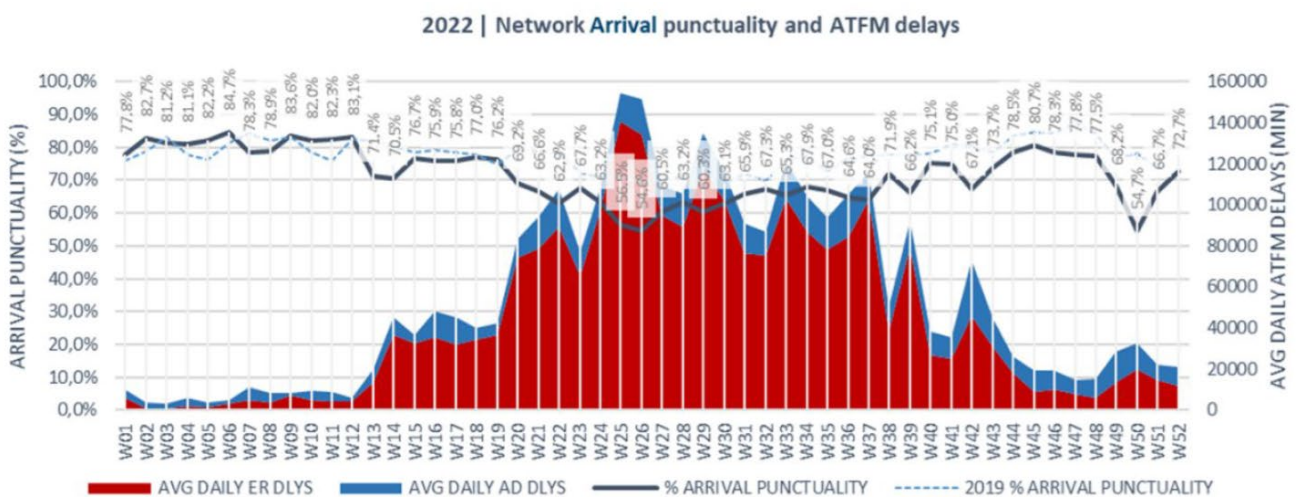
resupplied. Additionally, under the consumer guarantee provisions, consumers may be entitled to compensation for additional costs incurred due to the business' failure to deliver the promised service, especially if the loss was reasonably foreseeable. This is why Australia's consumer protection law has and continues to be an internationally recognised comprehensive legislation that provides robust consumer protection laws coupled with appropriate enforcement mechanisms.

Furthermore, regulatory bodies such as the Australian Competition and Consumer Commission (ACCC) provide guidance and a framework for consumers to address their complaints to various state-based consumer affairs or 'fair trading' agencies. This is in contrast to many other jurisdictions that have moved in the opposite direction, developing sector-specific consumer regulations that result in an extremely fragmented regulatory framework around the world. As a global industry, aviation depends on consistent regulations and standards being applied around the world. Fragmentation threatens to undo some of the progress and growth that we have achieved in the past decades.

Australia is not alone in experiencing challenges with operational performance, in particular in the post-pandemic period. There is no evidence that delays and cancellations are significantly worse in Australia than in regimes that follow a prescriptive, sector-specific model. Moreover, these issues are very largely a temporary phenomenon resulting from the unprecedented shock that COVID-19 caused to air transport rather being a symptom of a structural problem.

In Europe, delay analysis data for 2022 shows the extent of the problems. Across the European network as a whole, less than 55% of flights were on time during the peak of the summer season due to congestion and supply chain issues and again in mid-December due to weather. While these figures are averages for Europe as a whole, at certain airports and certain areas of Europe, performance was significantly worse.

Figure 1: Arrival Punctuality and Air Traffic Flow Management Delays (En-route or Airport)



Source: Eurocontrol, Annual Network Operations Report 2022, Eurocontrol (<https://www.eurocontrol.int/publication/annual-network-operations-report-2022>)

In the United States, data from the October 2023 Air Travel Consumer report<sup>9</sup> shows that of the 23% of flights that did not arrive on time, less than one third (31%) were due to circumstances within the airline's control. The remaining cancellations or delays were caused by factors such as weather, causes attributable to air navigation services, security delays or reactionary delays (due to a delay with an earlier flight). As in Europe, punctuality performance in the US varies across the year with over 30% of flights arriving late in July 2023.

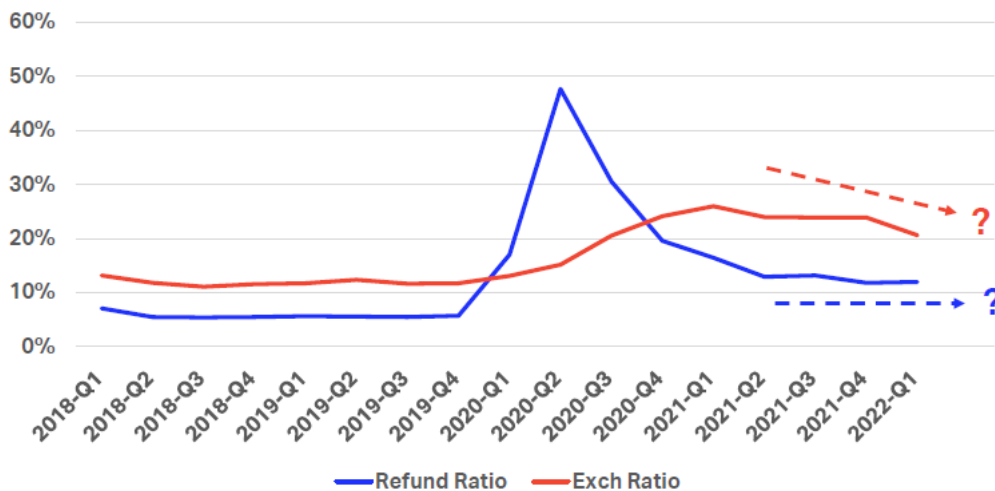
In Canada, out of nearly 199,000 delays that occurred during 2022, just over 87,500 (44%) were considered to be within an airline's control and not due to a safety issue. A very similar share of delays – almost 83,000 or 42% - were due to factors outside airlines' control including air traffic control (22%), weather and security.

COVID-19 led to a specific and unprecedented set of challenges, one of which related to the processing of refunds. These issues were exceptional and have now largely been resolved. Figure 2 shows that, prior to COVID-19, refunds were very stable at ~5% of the value of global ticket sales. In Q2 2020 this increased to nearly 50% before recovering to slightly over 10% by Q1 2022. The fact that the refund ratio had not returned to its pre-COVID level by Q1 2022 could be explained by

<sup>9</sup> Air Travel Consumer Report, US Department of Transport ([https://www.transportation.gov/sites/dot.gov/files/2023-10/October%202023%20ATCR\\_0.pdf](https://www.transportation.gov/sites/dot.gov/files/2023-10/October%202023%20ATCR_0.pdf))

ongoing travel restrictions and also due to airlines offering additional flexibility given the unique set of uncertainties caused by the pandemic. This hypothesis is supported by the observation that the exchange ratio was also approximately double its pre-COVID level.

Figure 2: Refund and Exchange Ratios (global values, percentage of ticket sales by value)



Source: IATA based on Direct Data Solutions

In Australia, a similar pattern can be observed with an average refund ratio of 3.8% in 2019 rising to 27% in 2020 before returning to 5.0% year to date in 2023. While the refund ratio is not fully back to its pre-COVID level, current refund volumes are stable and not at a level that creates a challenge in terms of processing.

COVID-19 has had a devastating impact on aviation, both globally and in Australia, and created a unique set of challenges, including for consumers. The uncertainty surrounding the schedules set by governments for reopening borders and easing COVID-19 restrictions exacerbated by differentiating Australian state views led to significant confusion regarding the issuance and use of airline tickets. This unpredictability naturally affected airlines very severely but also posed challenges for passengers planning their travel. Experience with COVID-19 has underscored the need for flexible policies and effective communication.

However more generally, COVID-19 was an exceptional event from which the aviation ecosystem has largely recovered. On this basis, IATA encourages the Government not to use COVID-19 as the baseline from which to assess the merits of potential regulatory interventions.

While there is scope for improvements to the framework in Australia – including the recommendations set out in this submission – the case is for evolution not revolution. In many ways, Australia is a best practice regionally and globally and government should take care to maintain its vaunted status when considering legislation.

**There is scope to do more around communication and information provision to ensure consumers are empowered**

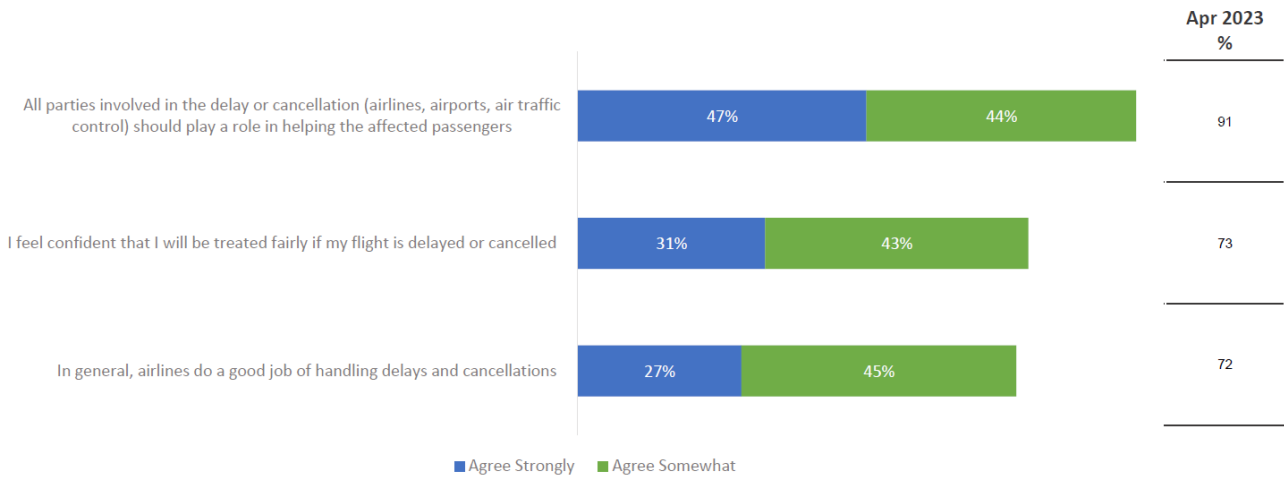
In late April/early May 2023, IATA fielded a survey of 4,700 recent travellers in 11 markets, including Australia. The survey included a range of questions designed to ask passengers how they were treated in the case of delays and cancellations. Of the travelling surveyed, there was an even split of passengers travelling for business and for leisure. Approximately half of the passengers (48%) had experienced a severe delay or cancellation in the previous 12 months.

The survey found that:

- 96% of travellers surveyed reported they were ‘very’ or ‘somewhat’ satisfied with their overall flight experience.
- 73% were confident they would be treated fairly in the event of operational disruptions.
- 72% said that in general airlines do a good job of handling delays and cancellations.
- 91% agreed with the statement ‘All parties involved in the delay or cancellation (airlines, airports, air traffic control) should play a role in helping the affected passengers.’



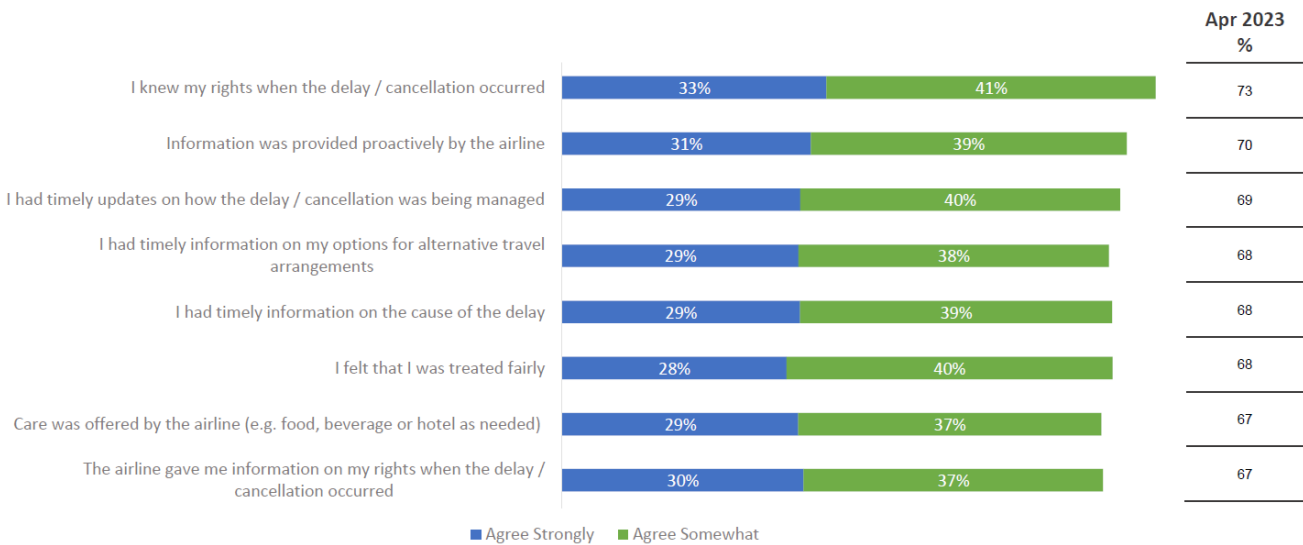
Figure 3: Passenger perceptions of flight delays / cancellations



Source: MOTIF for IATA

One key priority for consumers in the event of disruption is access to better information – not just about how to submit claims after disruption but also better information during disruption and before travel starts. This is not just a job for airlines but also for airports, relevant government agencies and intermediaries, and so calls for collaborative solutions. The IATA survey highlighted that there is scope for improvement in this area.

Figure 4: Passenger Experiences during recent flight delay / cancellation events



Source: MOTIF for IATA

Airlines are innovating significantly in provision of real-time information through digital platforms as well as making the processes for rebooking more easily available to consumers including, in many cases, giving the customer direct control over their choices. IATA is working closely with industry and governments on One ID and Modern Airline Retailing programmes, which IATA also address in Chapter 8 of our Green Paper response. This innovation should be encouraged and incentivised and, as already noted, airlines should be allowed to use customer service as a competitive, differentiating factor.

Given that a significant proportion of flight disruption is due to circumstances outside airlines’ control, it is important, consistent with the equitable principle of shared accountability, that all actors in the aviation ecosystem with a role in ensuring a smooth passenger experience are accountable for providing timely and accurate information related to flight disruption within their control. We explore this in more detail later in this chapter in the section dedicated to shared accountability.

There is a specific challenge with travel booked through intermediaries, where the intermediaries do not always pass the contact details of the customer on to the airline. Where this occurs, airlines are unable to contact consumers directly in the event of flight disruption. Either intermediaries should be obliged to forward contact details to airlines, subject to relevant data privacy considerations, or they should bear accountability for any consequences of having failed to provide these contact details to airlines.



Recognising the value of having a single source of information to provide passengers with information about both their rights and their responsibilities when flying, the UK has developed an Air Passenger Travel Guide<sup>10</sup>. This not only informs passengers of their rights but also tells them what they should be aware of before booking, and what they need to do prior to travel and during the travel experience. IATA supports the concept of the Air Passenger Travel Guide on the basis that a well-informed passenger is an empowered passenger.

The guide breaks the journey into stages, to provide information relevant to planning and booking travel; travel to and through the airport; outbound travel; inbound travel and getting accessibility assistance where needed. It also covers what passengers can expect from airlines, travel agents, tour operators and airports, and what they can expect if things go wrong.

**IATA recommends that the Government considers replicating the UK's Air Passenger Travel Guide and establishing a Task Force involving Government, industry (airlines but also airports etc) and consumer groups to develop it.**

**To improve performance, Australia should develop a model of shared responsibility to better align accountability for performance with control / influence.**

As noted in the section which discussed performance data, a significant share of disruption is outside airlines' control. This is true for Australia as well as across the rest of the world. Consequently, even regimes which impose a heavy financial burden on airlines through punitive compensation requirements do not see improved operational performance because of the disconnect between financial accountability and control or influence.

The concept of shared accountability is designed to address this structural imbalance. At its core, the concept is as simple as the name suggests; it involves all stakeholders in the aviation ecosystem being fully incentivized to perform to a level such that the entire ecosystem can function smoothly and be held accountable if they do not reach these standards.

The framework outlined in this section comprises six modules, which span a range from greater transparency about the performance of different actors in aviation ecosystem through to holding all stakeholders financially liable for service failures. The six modules are incremental and in the discussion that follows they are outlined in increasing order of stringency.

#### Real-time communication of the causes of disruption

As noted previously, a consistent finding from consumer research is that a key priority in the event of disruption is to know the cause of the disruption, the extent of the disruption and the impact on their journey.

Many countries already require air carriers to communicate the reason for the flight disruption but without a matching requirement applying to other stakeholders. This naturally can put air carriers, and particularly their front-line staff, in a difficult situation in the event of disruption as they may not have complete, accurate and timely information themselves.

Extending the requirement to disclose the reasons for service disruptions to other service providers in the travel-chain would address this gap and would have two major benefits. First and foremost, it would help ensure that consumers get access to timely and accurate information. In addition, it would support the collection of aggregated data about delay causes and facilitate improvements throughout the ecosystem.

#### Require all actors within the aviation ecosystem to publish performance data.

Transparency is a pre-requisite for accountability. At present, there is no systematic approach to collection and publication of data on performance of ANSPs, airports, ground handlers, customs authorities, security agencies etc. At a macro-level, this makes it harder for policymakers to monitor trends and clearly identify bottlenecks – in particular where these may be systemic across a network rather than focused on a single location. At an individual level, it means that passengers have limited or no visibility about the relative performance of different actors along the supply chain.

Performance data can be a useful guide when trying to determine the overall health of the aviation ecosystem either as a whole or at specific locations. Recurrent issues at particular locations and/or times could indicate systemic problems that require detailed examination. Most examples of the collection of performance data are focused on airlines as there is a long history of collecting such information for a variety of purposes. Accordingly, it is often the first set of data that regulators turn to when they think about industry performance. However, this focus on airlines risks overlooking potential issues with other parts of the aviation ecosystem. Even with airline punctuality performance, the reasons for any variations in performance can be wide-ranging and the underlying root cause of any problems may not be within airlines' control.

#### Develop service standards on all actors in the aviation ecosystem.

The next logical step from requiring performance data to be published is to establish minimum service levels or some other form of benchmark or standard. Examples could include on-time performance for airlines, performance reporting for ANSPs,

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<sup>10</sup> Air passenger travel guide, Government of the United Kingdom (<https://www.gov.uk/government/publications/air-passenger-travel-guide>)



availability of critical infrastructure for airports or maximum queue times for services provided by government agencies such as customs, immigration and security screening.

Conduct audits of adherence to service standards and promote constructive engagement to resolve issues.

One of the major problems with existing consumer protection regulations such as EU261 and the APPRs is that they are punitive, involving a pure monetary transfer from airline to consumer, rather than being focused on improving system performance. Accordingly, much of the regulator's effort is spent on enforcement rather than on education and improvement.

Shifting to a model based on using transparent and consistent data to identify pinch points and then using this data to understand how stakeholders can improve performance both individually and collectively would be expected to address the root cause of performance issues and improve outcomes for consumers.

Enshrine the shared accountability concept in any consumer protection model.

It is important that the shared accountability concept forms the basis of any consumer protection model. This means that for example, all actors in the aviation ecosystem would be brought within the Australian Consumer Law framework, whether directly or indirectly. While the introduction of legal requirements on all actors would indeed distribute accountability more evenly it may reduce the emphasis on constructive engagement and informal resolution of certain issues.

The key objective of the shared accountability concept is to ensure that control and accountability are aligned. The goal is to reach an outcome where consumers are not just looked after when things go wrong but where the system is improved to reduce disruption in the first place.

**IATA recommends that the Government considers developing a shared accountability model for Australia and establishes a Task Force involving Government and stakeholders from across the aviation ecosystem (industry but also government delivery agencies) to develop it.**

**The governance underpinning consumer rights in Australia should be amended.**

Following from the two previous sections related to better information for passengers and shared accountability, governance arrangements relating to consumer protection need to be revisited. It is important to create a forum or platform with representation from: government and regulators; industry stakeholders from across the aviation ecosystem as well as relevant government delivery agencies and consumer representatives.

IATA is not wedded to a particular model, for example whether this should be an evolution of the Aviation Consumer Advocate model or a different approach entirely. The priority is to ensure that all relevant actors are involved in serious and constructive engagements on a regular basis.

In terms of global best practice related to governance in consumer protection, IATA is not aware of any country with a framework for addressing the rights of aviation consumers that brings all the relevant parties together in one forum with a common set of objectives. In this sense there is a real opportunity for Australia to innovate and create a model that the rest of the world can follow.

**IATA recommends that the Government considers establishing a governance framework involving all relevant and affected stakeholders that meets frequently to exchange ideas on enhancing system performance and consumer welfare.**

**International experience shows that alternative regulatory frameworks used around the world do not deliver better outcomes for consumers.**

The lack of shared accountability with the consequent misalignment of incentives is a particular concern with prescriptive consumer regulation regimes. Compensation-based regimes that place all financial burden on carriers, including for incidents outside their control merely increase costs, which must be passed on to the end user without delivering any improvement in performance.

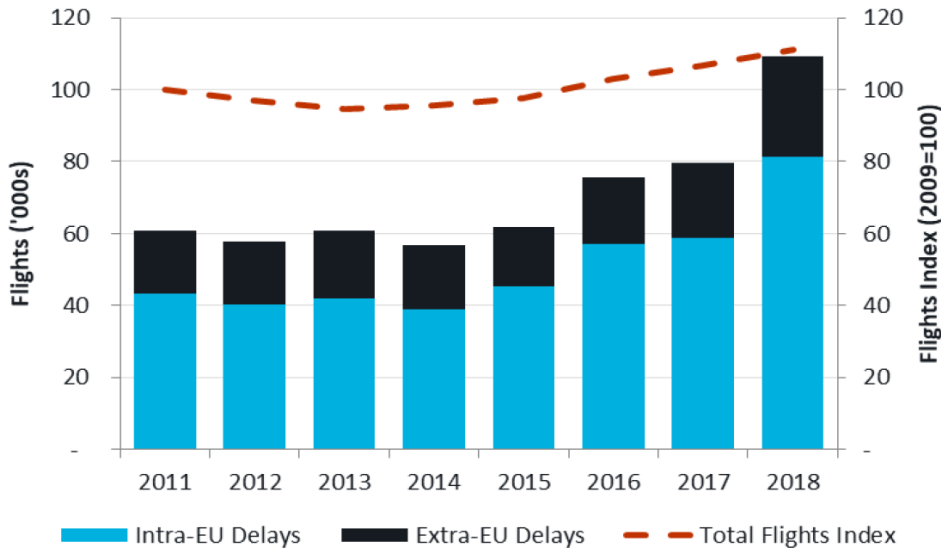
European Union Regulation 261 / 2004 (EU261)

EU261 was originally intended to influence commercial decisions made by carriers, in particular overbooking but also so-called "commercial" cancellations where carriers cancelled flights with insufficient numbers of passengers booked to travel. Indeed, it is because the Regulation was intended to have a dissuasive effect on decisions within airlines' commercial control that the compensation limits were set so high. EU261 can be considered as relatively successful in achieving these original aims. For example, figures prepared for the European Commission show that less than 0.2% of passengers were denied boarding in 2018.

The concept of compensation being payable for long delays is not included in the text of EU261; under the Regulation as drafted, compensation is only payable in the event of cancellation. This is because the European Commission understood that airlines already face strong financial incentives to avoid flight delays, to the extent that they are within carriers' control. However, successive legal interpretations by the Court of Justice of the European Union (CJEU), but most notably the 2009

Sturgeon judgement<sup>11</sup>, have fundamentally altered the way that EU261 is implemented in practice with the consequence that the bulk of claims under EU261 now relate to operational disruption, thereby severely weakening the link between accountability and control.

Figure 5: Number of delayed flights of over 2 hours (Intra-EU and extra-EU delays)



Source: Steer for the European Commission, based on Eurocontrol CODA Analysis

As a result of the disconnect between accountability and control, disruptions have increased following the *Sturgeon* judgement. The number of flights disrupted increased significantly between 2011 and 2018, with an increase of air traffic delays being a major contributing factor. Air traffic delays in Europe have continued to increase following the pandemic with average delay in European airspace of 2.1 minutes per flight in 2023 (Year to September) compared to 1.7 minutes per flight in 2019.

At the same time, the costs to airlines associated with EU261 have more than trebled from AU\$2.7 billion in 2011 to AU\$ 8.9 billion in 2018, equivalent to approximately AU\$ 7.5 per passenger. It is worth noting that the cost per passenger of EU261 was almost equivalent to net post-tax profit per passenger in 2018. Moreover, despite the healthy recovery of the industry, IATA forecasts that the net profit per passenger for 2023 will be AU\$3.5 per passenger, less than half that of 2018. It is also crucial to note that the profit margins vary significantly by region, with Asia Pacific airlines expected to make an overall net loss of about AU\$10.8 billion.

The EU261 regime is also complex to navigate for both airlines and consumers, exacerbated by uneven application of the Regulation across the 27 Member States of the European Union given that enforcement is a national responsibility:

- Consumers are often unclear whether they are entitled to compensation;
- For airlines, each case of disruption is unique. Many cases require detailed investigation which can be a highly manual process involving different departments across the airlines, driving the increase in legal and administrative costs;
- Claims Management Companies (CMCs) have emerged to take advantage of complexity and the high potential value of compensation. CMCs charge commission that can be worth up to 50% of the value of the compensation, depending on the specifics of the case;
- The Court of Justice of the European Union (CJEU) has acted in a *de facto* legislative capacity. In particular, *Sturgeon* had the practical effect of changing the Regulation. Since 2004, it has delivered more than 70 judgements relating to EU261. IATA is not aware of any other single piece of European legislation which has generated so much case law from the CJEU.

Following the *Sturgeon* judgement, the European Commission recognized that there were major problems with the way that EU261 was being implemented and proposed a major revision in 2013. Adoption of the revision was stalled due to a political

<sup>11</sup> Court of the European Commission *Sturgeon v Condor*, European Parliament (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62007CJ0402>)



dispute between Spain and the UK. While the revision was revived in 2019 / 2020, discussions were halted due to the onset of the COVID-19 pandemic.

In short, EU261, does not address the main priorities of consumers:

- It has failed to deliver improvements in performance due to the lack of shared accountability and specifically the failure to provide proper accommodation for airlines seeking redress against other stakeholders in the aviation ecosystem.
- The high cost to airlines of compensation payments feeds through to increased costs to all consumers given the low profit margins in the airline business. These increased costs disproportionately affect the most price-sensitive consumers and threaten the sustainability of the most marginal routes, with regional connectivity particularly threatened. This is a further reason why IATA encourages the Government not to pursue a compensation-based regime.
- The lack of shared accountability also makes it harder for consumers to have access to timely and reliable information when disruption does occur. The first module of the shared accountability framework, related to real-time communication of the cause of disruption would help to address this gap.

#### Canada: Air Passenger Protection Regulations (APPRs)

In Canada, the APPRs replicate many features of EU261. It is therefore unsurprising that EU261 and the APPRs share the challenges associated with a lack of clarity over how certain key concepts are to be determined. In the case of EU261 a central problem is with the interpretation of “extraordinary circumstances”, which has been a factor in many of the CJEU cases related to EU261. With the APPRs, a similar issue arises with the concept of disruption due to “situations within airlines’ control but required for safety purposes”, which under the APPRs do not trigger compensation but for which standards are set for care and assistance as well as onward travel. The lack of a clear definition setting out under which circumstances disruption is “required for safety purposes” has caused uncertainty for passengers alike as well as the Canadian Transportation Agency (CTA) which has a backlog of some 57,000 claims awaiting processing.

An important similarity between Australia and Canada is the importance of regional connectivity, so it is relevant to consider the impact of the APPRs on regional connectivity in Canada.

Regional connectivity in Canada, particularly in northern and remote communities, is vital for many people, allowing access to medical services, education, and social connections. There are numerous regional routes across the country, connecting passengers from smaller communities to other communities or major hubs for beyond connections. These routes present specific challenges from geographic, operational and economic perspectives. With regards to the APPRs, the regulations are particularly challenging for carriers operating these routes given that infrastructure and weather are common causes of delay, and limited flight frequencies mean that rebooking options are limited when disruption does occur.

Analysis carried out by Intervistas for the National Airline Council of Canada (NACC) suggests that the costs associated with the APPRs are likely to have an especially negative impact on regional connectivity given that the economics of these routes is already marginal to begin with. The impact of higher costs on route profitability feeds through to reductions in routes and frequencies operated and increases in air fares. The consequences for social cohesion become apparent as air travel becomes less accessible and affordable, and barriers to connectivity increase for passengers who are already restricted to air service for connection to the rest of Canada.

#### United States

In the US, the model of publishing performance data and using dashboards to provide consumers with information on performance of domestic services has some merit in terms of increasing transparency. However, the US approach replicates the same mistakes as the compensation-based regimes in the European Union and Canada in that it does not consider the aviation ecosystem as a whole with all the emphasis being on airline performance. Therefore, the US model is also not consistent with the principle of shared accountability.

In conclusion, there is no imperative for the Australian Government to single out aviation by legislating further consumer protection in aviation or for that matter any other modes of transportation, such as sea, rail, or road. The existing regulatory framework adequately serves its intended purpose. However, it is advisable for the government to consider instituting a comprehensive governance framework that would unite relevant parties in a single forum, that will foster collaboration and make recommendations to address the rights of aviation consumers that is aligned to Australian aviation policy to 2050.



### 3.3 Disability Access

- *What further improvements can be made to the Disability Standards for Accessible Public Transport to accommodate the unique requirements of air travel?*
- *What improvements can be made to aviation accessibility that are outside the scope of the Disability Standards for Accessible Public Transport?*
- *What are the specific challenges faced by people with disability wishing to travel by air in regional and remote areas?*
- *How can Disability Access Facilitation Plans by airlines and airports be improved?*
- *How should the Aviation Access Forum (AAF) be restructured to be more effective and better able to drive and enforce change to address issues faced by travellers living with disability?*

#### Key Recommendations

1. Provision of accessibility services is vital to ensure that everyone can participate fully in society and the economy.
2. Public policy should be balanced and developed in close partnership with stakeholders – including airlines – to ensure that it coherent, consistent, and cost-effective. IATA recommends that the Australian Government look at accessibility from a rounded perspective. A technical working group would be the best fit to review policy and procedures before any new regulation is designed. IATA volunteer to support the Government in this task.
3. Patchwork of varied regulation is challenging and thus costly for airlines to navigate. IATA recommend that the Australian Government considers opening dialogue with other regulators and ICAO. Annual investment in accessibility provision for airlines is significant and will grow if there is no common arrangement. IATA recommends the Australian Government consider sharing the cost of accessibility provisions appropriately across the value chain, the public sector, and the passengers. This is a common sense approach and will support better development in the travel chain.

#### Providing the best service to people with disabilities

Passengers with disabilities represent a growing sector of the aviation sector and IATA's airline members wish to support and welcome all customers, whatever their need. In doing so, IATA supports government and industry collaboration for the mutual benefits of passengers with disabilities and airlines.

The World Health Organization (WHO) estimates that 15% of the population worldwide or some 1 billion individuals live with one or more disabling conditions. According to the United Nations, the number of older persons has increased substantially in recent years in most countries and regions, and that growth is projected to accelerate in the coming decades.

Looking ahead, by 2050, the global population of older persons is projected to reach nearly 2.1 billion.

With the scale of the challenge in mind, IATA recommends that the Australian Government looks at accessibility from a rounded and universal perspective, reviewing the use of existing and new technologies and design for a wide range of users at:

- Airports: easy to understand displays, installation of multiple monitors, virtual assistants, support counters for customers requiring assistance, multifunctional restrooms
- Onboard aircraft: Inflight Entertainment options, mobile applications, wireless technologies, and both streaming and stored content accessibility.

#### The importance of global standards and global action

IATA notes and supports the Australian Government efforts to develop standards and calls for cooperation between States on consistent rules for the benefit of passengers and airlines. However, IATA would like to stress that we support supranational institutions such as ICAO to develop global accessibility principles and practices. By its very nature, air travel is an international and global business. It involves multiple parties working together, operating into and out of more than one (national) legal jurisdiction every time a plane takes off or lands, and connecting to different carriers during one same itinerary.

IATA's members are concerned by the proliferation of differing regulations that create difficulties for airlines and adds discomfort to passengers with disabilities due to a lack of harmonisation and clarity as to which regime applies. The potential application of more than one regime represents a safety risk and adds further confusion to the passenger.

We also note that these differing rules and policies are a cause for consternation between Australian states and territories. IATA therefore calls on the Australian Government to work together with the industry and the disability community to mirror as much as possible existing policy and standards. This will enable airlines to fulfil their obligations and to allow customers to plan in accordance with accommodations that can be reliably made throughout the itinerary.

Global consistency of policy proposals would have a greater impact if it would take into consideration the diverse regulations with which an airline must comply, and the interaction between them. This not only streamlines operational efficiency but also



provides the Government with assurances there is a mutual application of standards. This goes a long way to the universal regulatory application.

IATA has developed disability principles for a better regulatory approach to help develop rules that are proportionate, clear and transparent. These principles have been drafted in conjunction with the industry, regulators and the disability community and take in consideration the needs of our passengers.

### **Policy Principles**

1. **Accessibility:** The air transport sector should continue to promote inclusiveness and universal accessibility for all passengers, including for persons with disabilities.
2. **Common Definition:** National legislation (and supranational regional instruments) should apply a common, interoperable definition for passengers with disabilities. National law definitions should be consistent with the relevant standards of the ICAO, including those under Annex 9 to the Chicago Convention.
3. **Harmonisation:** In keeping with Core Principle Two (CP2), national legislation on passengers with disabilities should be harmonised to the greatest extent practicable. The principle of harmonisation should apply equally to the policies, procedures and practices implemented pursuant to national legislation.
4. **Clarity:** National legislation should be clear and unambiguous in its terms. Such legislation should not infringe treaty obligations or other obligations of international law.
5. **Consultation:** Regulators should consult with the airline industry and other air transport sector stakeholders well before legislation, policies, procedures, or practices are adopted. Such consultation processes should be transparent and meaningful.
6. **Impact Assessment:** Regulators should undertake a comprehensive impact assessment that deals with the costs and benefits of any proposed regulatory action.
7. **Fair Application:** National legislation should contain safeguards to prevent exploitation of the system for personal convenience.

### **Process Principles**

1. **Assistance:** Airlines should assist passengers with disabilities in a manner that takes into account the best interests of the passengers, relevant safety regulations and operational realities.
2. **Guidance:** Airlines should provide clear guidance to passengers with disabilities on their requirements for the carriage of mobility devices and medical equipment.
3. **Training:** Airline and aviation service staff should be supported by their employers in acquiring and maintaining the proper knowledge, skills and abilities to provide passengers with disabilities a seamless and dignified travel experience.
4. **Reducing burdens:** National legislation should be balanced in its application and should not impose disproportionate or impracticable burdens on airlines.
5. **Communication:** Regulators should strongly encourage passengers with disabilities to provide pre- notification of their needs in advance of their travel.
6. **Coordination:** Air transport sector stakeholders and governments should coordinate their approach in order to deliver consistent end-to-end service to passengers with disabilities regardless of location and national borders.

### **Ensuring the safe carriage of all passengers**

Safety remains the industry's number one priority and safety culture has been built over decades, by a multitude of industry and government stakeholders. The industry's excellent safety record is the best form of passenger protection – including disabled passengers - and regulations prescribing rights for disabled passengers should seek to maintain this high standard. IATA recommends the Australian Government looks extremely carefully at safety considerations when reviewing accessibility regulations.

### **Safe and secure carriage of mobility aids**

IATA supports efforts made to ensure that mobility aids can be safely and securely carried in the cargo compartment of the aircraft. For the owners of mobility equipment, these items are personal possessions and a key part of their independence. In principle, IATA does not support the proposals to waive the financial limits to refund damages to wheelchairs which would be contrary to international commitments and obligations. If the Montreal Convention limits on compensation for wheelchairs are forcibly changed or encouraged to be waived, how would fraudulent abuse be minimised, and global standards ensured?



As has been sighted in other jurisdictions, airlines are already exposed to a high volume of fraudulent claims as a result of their inability to gather adequate proof of damage or loss; this effect is likely to be compounded with this waiver.

Airlines apply the same level of due diligence to the transport of wheeled mobility aids as they do to overall safety and security and take the safe and secure loading and transporting of mobility aids very seriously.

Mobility aids are becoming increasingly complex and aircraft operators cannot always be expected to have the expertise required to, for example, properly assemble and disassemble mobility aids where clear instructions are not available. Consideration needs to be given to developing procedures and standards to prevent unintentional damage to mobility aids during disassembly and assembly.

We strongly encourage the Australian Government to promote collaboration between manufacturers to design mobility aids that are convenient for air travel as well as educating customers regarding wheelchairs that are suitable for air travel to enable judicious choices. There is also a need to ensure that any guidance for the transport of mobility aids take into account the constraints of the operating environment, particularly in the Australian context where there can be wide differences in the operating environments of regional vs urban services.

IATA issued a guidance on mobility aids that aims to develop long term solutions such as:

- Guidance on how to prepare the mobility aids for loading, securing, and unloading.
- Standards on carriage of mobility aids including lithium-ion battery powered aids.
- Handling checklist and job aids for tracking disassembly/assembly actions taken throughout the itinerary.
- A system of electronic tag for mobility aids.
- Simplification of the types of wheelchairs through standardisation and air travel-friendly design.

## Training

Meeting the needs of passengers with a disability should be a personal and corporate responsibility. Operators involved in the delivery of services should have a clear understanding of how their role affects passengers with disabilities, and have the proper knowledge, skills, and abilities to accommodate passengers' needs to the greatest extent possible. Airlines take the training of staff and their provision of assistance to passengers with disabilities seriously, so as to ensure they meet the needs of their customers. IATA recommends that training obligations should include travel agents, airlines, airports, and service providers at the same time.

## Assistance Animals

IATA fully supports the right of individuals with disabilities who have a legitimate need to travel with a trained and certified assistance dog to do so. IATA member airlines spend millions of dollars each year, not only accommodating such passengers to the extent required by law, but also by ensuring animals have a safe and comfortable travel experience.

Some regulations define assistance and service dogs. Other regulations leave space for interpretation creating chaos and confusion for airlines and passengers. For example, in these regulations there is no definition of service dogs and carriers are left to determine if the documentation provided is sufficient to satisfy themselves that the animal is a legitimate service animal trained to work in a public setting.

The industry and passengers need a clear and easily recognisable document to reflect the acceptability of assistance animals. IATA members urge the Australian Government to engage in collaborative work to develop a global, consistent definition and standard for certified assistance dogs. We recommend regulators to introduce the definition of an "assistance trained dog" and establish parameters for the acceptance of assistance trained dogs in society more generally and not only in the narrow context of aviation.

It is vital that the definition only includes dogs individually trained to do work or perform tasks for the benefit of an individual with a disability and clearly excludes all other species of animals, whether wild or domestic, trained, or untrained. This is a common-sense approach that recognises that dogs are the primary species that can be trained to assist an individual with a disability (and be trained to behave in a public setting).

One solution would be to provide a definition that includes Assistance Dogs International (ADI), International Guide Dog Federation (IGDF), or a state recognised scheme. This would provide airlines with the confidence that the training company used was bona fide, therefore ensuring the animal would not in any way jeopardise safety on board the aircraft. IATA wishes to point out the Queensland Government Public Access Test<sup>12</sup>, which establishes a minimum standard for guide, hearing and

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<sup>12</sup> **Completing the public access test and certifying your dog, Queensland Government (<https://www.qld.gov.au/disability/out-and-about/ghad/certification-public-access-test>)**



assistance dogs, as a means by which the Australian Government can align all jurisdictions to ensure there is a national approach to certifying assistance animals. It is IATA's belief that this definition should exclude Emotional Support Animals (ESAs) and animals that are too large to be accommodated in the cabin due to the impact this has on broader airline operations<sup>13</sup>.

#### Accessible formats of communication and information dissemination

IATA believes that accessible formats should be limited to ensure that persons with visual disabilities can receive information in ways that are accessible to them, without mandating technologies. For example, by requiring braille, airlines would be forced to use largely outdated methods of communication, rather than allowing the industry to identify innovative solutions to address the needs of the disability community. It is recognised by numerous institutions<sup>14</sup> that fewer than 10% of those who are legally blind are Braille readers, and only 10% of blind children now learn it. This suggests that younger generations are relying on new technologies.

### 3.4 Economic Regulation of Airports

- *What measures should be taken to ensure Australian aviation markets operate efficiently, improve competition settings, and deliver optimal consumer outcomes?*
- *Are the Aeronautical Pricing Principles fit-for-purpose? How could they be improved?*
- *Should the Australian Government mandate use of the Aeronautical Pricing Principles? Why or why not?*

#### Key Recommendations

1. The current economic regulatory regime is not fit for purpose. Airport users and consumers are not sufficiently protected from the exercise of market power by airports. Existing legislation should be made fit for purpose by providing the ACCC with the necessary instruments to regulate effectively.
2. The ACCC has an important role in determining the fair level of returns for the regulated airports.
3. The Aeronautical Pricing Principle (APP) could be further strengthened and must be mandated for it to make any material difference in the commercial negotiations between airport operators and their users.
4. Single till is the most equitable and optimal mechanism to support the long-term growth of the airport and the aviation industry. The single till approach should be adopted; determining the level of revenue and return required, and the user charges to be set on the basis of all services at an airport, irrespective of whether they are aeronautical or non-aeronautical.
5. Measures should be taken to ensure airport coordination policy and procedure, at capacity constrained airports, are aligned with the WASG.

Australia is at a critical juncture where changes to its policy direction are needed to rein in the profit maximisation approach by the private airport operators. If we were to look at successes with world-class airports, there are major airports under public ownership such as Changi Airport, Airport Authority of Hong Kong, and Incheon Airport that have been able to deliver the required service levels consistently and competitively. Given that the major airports in Australia are under long-term leases, the Australian Government must step in to improve the existing economic regulatory framework to deliver the required outcomes, balancing airport profitability with the overall need to protect the interest of consumers and the overall health of the aviation ecosystem.

#### Airport Regulation

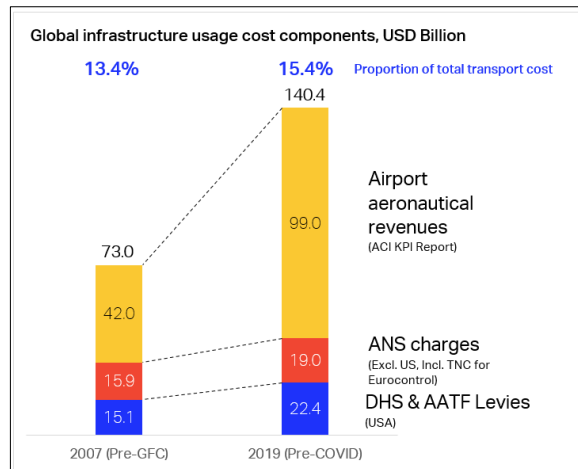
Most airports are naturally monopoly service providers, or at the very least operate in a captive market, serving a specific catchment area with some level of differentiation in the provision of the type of services and their service level. It can be assumed that airports don't generally compete.

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<sup>13</sup> **Poorly Trained Service Dogs: The impact on trained service dog teams, Canine Companion** (<https://canine.org/news/poorly-trained-service-dogs-the-impact-on-trained-service-dog-teams/>)

<sup>14</sup> **Braille, VisAbility WA** (<https://www.visibility.com.au/about-visibility/vision-resources/braille/>)

Figure 6: Global Infrastructure Usage Cost Components



Source: IATA analysis based on ACI, ICAO, Eurocontrol, FAA, ATA sources. Analysis excludes taxes.

In a recent industry study<sup>15</sup>, IATA and McKinsey found that the global cost of airport and ANSP revenues from charges has increased from US\$73B in 2007 to US\$140.4B in 2019, a 92% increase. IATA's records show total airline revenues of US\$509.8 billion in 2007 and US\$838 billion in 2019, a 64% increase, while global passenger traffic over the same period increased by 66%. The disproportionate increase in infrastructure usage costs is a cause for concern and points to an imbalance in the aviation ecosystem, which must be addressed. In addition, comparing the two datasets – air transport industry revenues and infrastructure charges – the share of global infrastructure usage compared to total air transport costs has risen from 13.4% in 2007 to 15.4% in 2019. While we note that the Australian government has been investing in transport infrastructure, close monitoring and scrutinising of existing airport charges must be enhanced.

In the Australian context, the existing light touch airport monitoring regulatory regime is not fit for purpose and has failed to deliver the envisaged policy outcomes after more than two decades since the privatisation of the major Australian airports on both cost and operational efficiencies. We must recognise the fact that self-regulation or ineffective regulation simply does not work to prevent the exercise of market power by airport operators.

It is clear that the major/regulated Australian airports have demonstrated their ability and tendency to exercise market power to the detriment of passengers and airport users. This observation is supported by the various statements of the ACCC over the years calling for improvements to the existing regulatory regime to protect the interest of consumers. Below is an excerpt from the ACCC's submission on 15 March 2023<sup>16</sup>, in response to the Aviation White Paper terms of reference.

**Airport regulation needs to be fit for purpose**

*In the absence of an effective regulatory regime to constrain airports, airports could seek to maximise their profits by charging higher prices, providing lower quality of service, or both. Such behaviour would negatively impact the operation of the aviation sector and, given the critical role the sector plays in the Australian economy, reduce the productivity of the entire Australian economy.*

*Over nearly 20 years of monitoring prior to the COVID-19 pandemic, the ACCC has repeatedly observed in its Airport Monitoring Reports that airports achieved sustained high profit margins. For many years, aeronautical profit margins were between 40% and 50% and car parking profit margins were over 50%. The ACCC also regularly received complaints from airlines about the behaviour of major airports during negotiations.*

*In its 2019 report, the PC commented on high international charges at Sydney and Brisbane airports, Sydney Airport's high profitability and high operating costs at Perth Airport.*

*Although individually these findings are not conclusive, the ACCC is concerned that collectively they may indicate the current light-handed regulatory regime is not working well enough to effectively protect Australian businesses and consumers from the exercise of market power by the monitored airports.*

<sup>15</sup> IATA-McKinsey study shows imbalanced aviation value chain, IATA (<https://www.iata.org/en/pressroom/2022-releases/2022-12-06-02/>)

<sup>16</sup> ACCC, 'Aviation White Paper: ACCC submission in response to the terms of reference' 15 March 2023, viewed on 23 November 2023, <https://www.accc.gov.au/system/files/ACCC%20submission%20in%20response%20to%20the%20Aviation%20White%20Paper%20terms%20of%20reference%20-%20March%202023.pdf>



IATA supports strong, robust, independent and effective economic regulations. Regulation is required to protect users against providers' potential abuse of their dominant position, especially privatised or profit-maximising providers. Key elements of a strong, robust, politically independent, and effective economic regulation:

1. Regulators must be independent of direct control by governments or airports. They must also be given clear objectives, or statutory duties and have the resources and operational independence to meet these principles. Furthermore, economic oversight is a core state function that should be funded by the government budget.
2. A neutral dispute settlement mechanism for appeals against the regulator's decisions must be available to users.
3. Regulatory reviews should normally cover periods of three to five years. This provides sufficient time for a regulated company to develop procedures, implement changes and extract cost efficiencies.
4. Effective stakeholder engagement<sup>17</sup> must ensure the early and timely involvement of airlines in negotiations on business plans, future investments and operational expenditures. This involvement should continue until a successful conclusion is reached. Capital expenditure should only be undertaken with the agreement of airlines and their representative organisations on both the need for infrastructure development and its financing.
5. Single till regulation<sup>18</sup> should be enforced, determining the level of revenue and return required and the user charges to be set on the basis of all services at an airport, irrespective of whether they are aeronautical or non-aeronautical.
6. The provisions of ICAO's Policies on Charges<sup>19</sup>, including the key charging principles of non-discrimination, cost-relatedness, transparency, and meaningful consultation with users, must be incorporated into the economic regulatory framework.
7. Economic regulation must encourage airports to continuously strive for timely investments, cost reduction, improved cost efficiency and service levels. It must set clear and measurable cost efficiency targets, as well as quality and operational performance standards the airport needs to deliver in return for airport charges, as agreed with the airlines.

An effective regulatory framework can be used to deliver efficiency improvements among airports. However, an ineffective regulatory framework can contain as little an incentive for efficiency as no regulation at all. Therefore, regulation should provide clear incentives and targets for efficiency, with benchmarking to assess performance and potential improvements.

In considering the impact of regulation on efficiency, it is important to distinguish what is meant by the different types of efficiency. A particular framework may be strong in providing incentives for one form of efficiency but weaker in delivery improvements in other areas. The three types of economic efficiency are:

1. **Productive efficiency**  
This ensures that, for a given standard of quality, each level of output is produced at the minimum level of costs. The price-cap regulation framework contains strong incentives for regulated companies to improve their productive efficiency, with firms allowed to keep any cost savings below their target within each regulatory period but penalised for costs above the target. By contrast, rate-of-return regulation is much weaker in delivering productive efficiency, with costs reimbursed whether they are minimised or not.
2. **Allocative efficiency**  
This ensures that prices are related to costs, with the level of output determined by where marginal cost equals marginal revenue (i.e. capacity is allocated to those who can maximise the financial and wider economic benefits from it). Regulation can help to improve allocative efficiency by improving transparency and ensuring ICAO principles of non-discrimination are followed in setting charges.

However, where an airport is capacity-constrained, productive efficiency improvements can reduce costs far below the market clearing price. Allocative efficiency is affected as prices do not take full account of the wider cost of capacity constraints.

In addition to congestion, there are other externalities, such as noise and local air pollution that can impact allocative efficiency. Some airports have additional charges for these impacts, though they often fall outside the remit of economic regulation.

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<sup>17</sup> Airline engagement in consultations, IATA (<https://www.iata.org/contentassets/fa95ede4dee24322939d396382f2f82d/airline-engagement-in-consultations.pdf>)

<sup>18</sup> Single Till, IATA (<https://www.iata.org/contentassets/fa95ede4dee24322939d396382f2f82d/single-till.pdf>)

<sup>19</sup> ICAO Doc 9082 Policies on Airport and Air Navigation Charges

### 3. Dynamic efficiency

This ensures that the level of quality and output improves over time to meet customer needs. In other words, it ensures that investment is delivered in a timely and cost-effective manner. Price-cap regulation, in particular the single-till system, is seen by some as a constraint on dynamic efficiency as it does not provide sufficient incentives (e.g. certainty on future returns) for investment.

However, there is no clear evidence of this, with other factors, such as the planning system, often being the key constraint on investment. Price monitoring, rate-of-return regulation or contracts can help to improve the timeliness of new investment but require additional safeguards to ensure it is delivered cost-effectively.

What IATA has highlighted so far are global best practices and the key elements that will help to deliver the required balanced outcomes for airports and their users – the ideal approach. However, we do recognise that the Australian Government might be seeking recommendations that are more practical to implement without requiring a major overhaul of its existing regulation by exploring measures that can make the existing regulatory regime more effective and fit for purpose.

One of the practical improvements to the existing monitoring regulatory regime is to provision for and more readily trigger the arbitration process in the event of a breakdown in commercial negotiations. This would be sufficient to serve as the much-needed regulatory backstop, in the interim, until the economic regulatory regime catches up to the required state. A particular example of this is EU Legislation Directive 2009/12/EC<sup>20</sup> or more commonly known as the Airport Charges Directive. Once the arbitration process is triggered, an Independent Supervisory Authority is tasked to resolve disagreements between airports and users.

### Determination of the Fair Rate of Returns

The designated agency, the ACCC in this case, has an important role in determining the fair level of returns for the regulated airports. The access to private funding came at a great cost as private airport operators set out to recover their investments from consumers while extracting high(er) returns, which don't normally commensurate with their (low) level of business risk e.g., with demand outstripping capacity. This is one of the main factors leading to excessive levels of airport charges.

The cost of capital needs to take closer account of actual financing costs. In some cases, the regulator has erred too much on the side of caution, allowing an overly generous cost of capital that exceeds the actual financing costs faced by the firm. The cost of capital should be set on the basis of projected or optimal gearing levels rather than historic levels. However, in order to provide a greater incentive for new investment, there is scope to explore the possibility of allowing a split between a lower rate on the existing capital base and a higher rate to reflect the risks associated with new investment. IATA's best practice paper on the determination of cost of capital<sup>21</sup> provides useful guidance on this matter.

The Australian Government should look at the regulatory approach in Aotearoa New Zealand. Although the Commerce Commission does not explicitly prescribe/impose the Weighted Average Cost of Capital (WACC), they do compare the profitability of the major airports against the Commission's benchmark WACC during the Price Setting Event (PSE) process. This sets the expectation of what is considered as reasonable returns based on independent evaluations by the Commission that the airports must respond to. Airport charges are also influenced by the service levels for the various services provided.

### Airport Service Quality Framework

IATA recommends the Australian Government establish a more effective airport service quality framework as detailed in our best practice guidance<sup>22</sup>. Although the ACCC monitors the quality of service of the regulated airports on annual basis, there is a need to recognise and better link airport charges to the provision of services through a robust, objective framework, and not solely based on surveys which are subjective by design. The objectives of airport service quality frameworks are to:

1. Clearly define airport service levels and quality standards based on users' need.
2. Support airlines operational efficiency and the customer experience.
3. Measure the performance of airport facilities and assets.
4. Promote the consistent and cost-effective delivery of airport performance.
5. Establish accountability and assurance for customers in return for user charges.
6. Foster continuous improvements through effective monitoring and measurement.
7. Enhance trust and communication between airports and airline users.

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<sup>20</sup> Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges, Official Journal of the European Union (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0012>)

<sup>21</sup> Cost of Capital, IATA (<https://www.iata.org/contentassets/fa95ede4dee24322939d396382f2f82d/cost-of-capital.pdf>)

<sup>22</sup> Airport service quality frameworks, IATA (<https://www.iata.org/contentassets/d1d4d535bf1c4ba695f43e9beff8294f/airport-service-quality-frameworks.pdf>)



In addition, there is a role for the Government to provide leadership in driving improvements in airport services through greater adoption of new technologies and infrastructure. This will help ensure alignment with national priorities such as the technology roadmap and environment sustainability strategy.

### Aeronautical Pricing Principles

IATA agrees that the Aeronautical Pricing Principles (APP) sets out principles that are good starting points. However, it is incomplete/ineffective in its current form without the regulatory impetus for airport operators to adhere to these principles - the APP has very limited standing and effect unless mandated. This is based on IATA's experience globally in different markets operating under various economic regulatory regimes, or the lack of it. We cannot expect airport operators with significant market power to subscribe to and apply the principles willingly at the expense of lowering their excessive profits which continue to be a top priority for their shareholders. The whole purpose of regulatory intervention is to yield the desired/right behaviours and outcomes in the best interest of the consumers, not to a particular group such as airport operators and their investors, either by action or inaction.

If airport operators are supportive of the APP and claim to apply it in commercial negotiations with airport users, complying with the principles should not be a challenge/issue. On the contrary, airport operators would naturally push back on the APP mandate. This in itself is clear evidence that the APP alone without being mandated will have no effect or bearing on the behaviours and decisions of the airport operators.

The APP can be further strengthened to deliver more balanced and effective outcomes by incorporating the principles stipulated in ICAO's Policy on Airport and ANSP Charges Doc 9082<sup>23</sup>. ICAO's policies on charges contain the recommendations and conclusions of the ICAO Council based on the economic situation of airports and air navigation services provided for international civil aviation and set the principles for establishing charges for service provision. Australia, as a member of the ICAO Council, should work towards full alignment with these policies, including ensuring the effectiveness of their implementations.

More critical to this discussion is how the APP will be enforced and the regulatory parameters that will be set, particularly for privatised airports. Following the most recent Productivity Commission (PC) Review in 2018-2019, the ACCC has set out to improve the existing light-handed regime through more detailed information requirements and prescribing specifically a set of service level metrics that will come under its monitoring regime. However, IATA believes that more is needed to address the issues at hand i.e. it offers only a partial solution (greater transparency), particularly for the longer term as the Australian Government sets out its policy direction for aviation out to 2050. IATA would welcome further discussions on the possible options for implementation, particularly the Voluntary Code of Conduct proposed by Airlines for Australia and New Zealand (A4ANZ).

### Single Till Approach

IATA remains concerned with the dual till approach applied for the regulated airports and is convinced that the regulated private airports are not where they should or can be despite claims of enabling investments.

*"Expansion of commercially operated airports is underpinned by their ability to draw income from non-aeronautical commercial development. This development further enables investment in aviation infrastructure and provides a necessary return on investment for the airports. It is important that a balanced approach between aviation and non-aviation development is undertaken to sustain the growth and development of the aviation sector over the long term."* From page 28 Of the Aviation Green Paper.

IATA supports the intent of the statement above. However, it is necessary to point out that under the existing dual till approach, the non-aeronautical commercial development has no direct linkage in enabling investment in aviation infrastructure i.e. the revenues are being recognised in different baskets and subject to no or different regulatory and financial treatments. This dual till arrangement does not adequately (or rightly) reflect the high dependency of non-aeronautical activities on aeronautical activities. Furthermore, all funding for aeronautical infrastructure will eventually be recovered from airport users (plus returns to the airport). It is inaccurate to justify that non-aeronautical development enables investment in aviation/aeronautical infrastructure under a dual till approach.

On the contrary, the dual till arrangement has primarily shifted the attention of the airport operators to unregulated non-aeronautical activities that generate higher returns, without adequately recognising the importance of aeronautical activities to the airport ecosystem. The dual till is more consistent with systems in place in other regulated utility sectors (e.g. electricity), but these other industries do not have the characteristics of interdependency seen in the aviation sector.

IATA recommends a single till approach that determines the level of revenue and return required, and the user charges to be set on the basis of all services at an airport, irrespective of whether they are aeronautical or non-aeronautical. The approach

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<sup>23</sup> *ibid*





is justified because there is an interdependency between the passengers airlines bring to airports and the non-aeronautical revenues (e.g. retail) they provide for airports. As airlines have delivered the customers to make non-aeronautical operations at airports profitable, it is reasonable that they should also share in their benefits. Examples of the use of the single till system include the United Kingdom, the United States of America, Malaysia, Ireland, South Africa and Sweden, among others.

We refer to the submission made by Airlines for Australia and New Zealand (A4ANZ) to the Productivity Commission in 2018<sup>24</sup>, particularly on the profitability analysis done across all major airport activities; both aeronautical and non-aeronautical i.e. single till treatment. The findings are telling, demonstrating that the returns are even more excessive than what the ACCC's past assessments have concluded based only on the regulated airport services. Regrettably, it was dismissed by the Productivity Commission as this was considered out of scope i.e. the current legislation only considers the regulated airport services. It is timely, and the only opportunity we have for this aspect to be rectified through the Aviation White Paper process with a clear policy direction from the Australian Government to apply the single till approach.

The existing policies that support/allow the dual till approach must be reviewed and addressed in the Aviation White Paper. A fair and optimal arrangement would be for airport operators to adopt a Single Till<sup>25</sup> system to achieve the required outcome envisioned by the Government. This will more appropriately recognise the high dependency of non-aeronautical businesses on aeronautical activities. Only a single till approach reflects a fair and balanced cost allocation mechanism, replicating the behaviours those airports apply if exposed to competitive pressure and therefore trying to attract airlines and passengers: it is therefore the fairest mechanism of charging to be applied at airports with significant market power.

### **Airport Slot Coordination; Global Harmonisation**

Measures should be taken to ensure airport coordination policy and procedure, at capacity constrained airports, are closely aligned with the WASG. Airports across Australia are not unique in the demand challenges they face, and therefore are not an exception. The need for an alignment to the WASG was recognised by the extensive work completed by the Australian Government following the Peter Harris AO Review of the Sydney Airport Demand Management (SADM) Scheme.

IATA does not believe there is reason to implement a slot management scheme that is substantially different from the WASG. Implementing a slot scheme that differs from the rest of the world risks the harmonious structure to airport slot coordination that successfully links airports globally. Australian Level 3 airports, their functions, services and related flights, do not differ from those of other Level 3 airports. They are not unique and as such, no unique or bespoke slot scheme is required.

The risk of divergence from the WASG is to invite variable treatment of different airlines in matters of airport coordination. This results in negotiation where those with the most leverage may prevail. The WASG levels the playing field, provides a set of guidelines that industry stakeholders predominantly support, thereby resulting in an equitable and efficient industry solution to a lack of airport capacity.

**The WASG is a live document and policy is constantly under review. We recommend governments necessitate an alignment to this global guidance but retain enough legislative agility to facilitate the adoption of ongoing WASG policy updates.**

Aviation is a global industry that requires global solutions. This is especially important when considering the allocation of slots and therefore the rights to fly. The consistent application of the WASG at both ends of every route provide airlines and jurisdictions with fair and equal treatment. Most vital is the need for airport slot coordination to be applied in a consistently neutral, transparent, and nondiscriminatory manner. This approach ensures all stakeholders may have confidence in the capacity declaration process, slot allocation and monitoring decisions. The WASG purposefully promotes the efficient use of scarce airport capacity and isolates airport slot coordination from the potential effects of political or bilateral negotiations where one party may have greater leverage.

Ensuring the WASG remains fit-for-purpose as the global standard is a key concern and so back in 2020 the industry formed the Worldwide Airport Slot Board (WASB), consisting of equal airport, airline and coordinator representation to establish WASG policy from across the globe to ensure diversity of representation. As such, we take this opportunity to emphasise the WASG is based upon industry expertise according to an agreed set of objectives. Divergence risks established connectivity with the rest of the world through the networks of Australian and international carriers, who typically operate to and from Level 3 airports at both ends of the route and across their connecting networks. The needs of all stakeholders need balancing, all airline types, connected airports, built around the consumer at the centre. We advise caution in departing from the WASG global standard, particularly to favour any individual stakeholder, for the far-reaching consequences this may have on Australia's international standing, connectivity and provision of independent and neutral airport coordination.

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<sup>24</sup> Market Power and the profitability of Australian Airports – response (prepared for A4ANZ), Frontier Economics ([https://www.pc.gov.au/\\_data/assets/pdf\\_file/0019/234163/sub083-airports-attachment1.pdf](https://www.pc.gov.au/_data/assets/pdf_file/0019/234163/sub083-airports-attachment1.pdf))

<sup>25</sup> *ibid*



## Worldwide Airport Slot Guidelines

No airport can operate in isolation of other airports and so the WASG provides the global aviation community with a single set of standards for the management of slots at coordinated airports (Level 3) and for schedule adjustments of planned operations at facilitated airports (Level 2). It is the industry standard recognised by many regulatory authorities for the management and allocation of airport capacity. In some instances, this text has been incorporated into local regulations and national law. The European Council Regulation No 95/93, the Rules of the Civil Aviation Authority of Thailand on Criteria for Slot Allocation for Airport Arrival and Departure of Aircraft B.E. 2562 (2019), and in Latin America, Peru, Colombia and Brazil regulations, closely adhere to the principles and text of the WASG. Over 90% of the world's Level 3 airports are considered to have fully implemented the WASG. The remaining 10% of airports are mostly in the process of adopting the WASG – such as in China where there is an ongoing policy review to be more closely aligned to the international standard.

The WASG is jointly published by the Worldwide Airport Slot Board (WASB), made up by Airports Council International (ACI), the International Air Transport Association (IATA) and the Worldwide Airport Coordinators Group (WWACG) to provide the global air transport community with a single set of standards for the management of airport slots. Its policy aims to “ensure the most efficient declaration, allocation and use of available airport capacity in order to optimise benefits to consumers, taking into account the interests of airports and airlines”.

Core WASG principles are recognised by ICAO in its Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587). Doc 9587 notably states that “any slot allocation system should be fair, non-discriminatory and transparent, and should take into account the interests of all stakeholders. It should also be globally compatible, aimed at maximising effective use of airport capacity, simple, practicable and economically sustainable.” This closely matches the objectives of the WASG.

### **WASG Objectives**

*The prime objective of airport slot coordination is to ensure the most efficient declaration, allocation and use of available airport capacity in order to optimise benefits to consumers, taking into account the interests of airports and airlines.*

- *To facilitate consumer choice of air services, improve global connectivity and enhance competition at congested airports for passengers and cargo.*
- *To provide consumers with convenient schedules that meet demand, are consistent from one season to the next, and reliable in terms of their operability.*
- *To ensure that slots are allocated at congested airports in an open, fair, transparent and non-discriminatory manner by a slot coordinator acting independently.*
- *To realise the full capacity potential of the airport infrastructure and to promote regular reviews of such capacity and demand that enable effectual capacity declarations for slot allocation on a seasonal basis.*
- *To balance airport access opportunities for existing and new airlines.*
- *To provide flexibility for the industry to respond to regulatory and changing market conditions, as well as changing consumer demand.*
- *To minimise congestion and delays.*

WASG objectives are achieved through the consistent application of all WASG policy and multiple policies will often impact desired results. Access opportunities to congested airports, for example, are not only the result of the New Entrant rule, but also the availability of capacity, which is impacted by the need for frequent and accurate demand capacity assessments, the implementation of appropriate coordination parameters, the efficiency of the airport operation, the use of allocated slots, and a requirement for the coordinator to ensure due account is taken of competitive factors in the allocation of available slots. IATA therefore fully supports the following Harris Review recommendations and suggests the same should apply at Level 3 airports across Australia:

- Align with the WASG;
- Adopt the WASG definition of New Entrant;
- Implement new ranking matching WASG priority for New Entrants and changes to historic slots;
- Introduce Slot Optimisation meetings; and
- Ensure regular and thorough capacity declarations are completed.

### **Adopt WASG New Entrant Rule**

As a preliminary matter, we would caution the government not to confuse “competition” in the allocation of slots with competition among carriers for the provision of air services. With that said, the government has presented a possibility for implementing the New Entrant rule to allow presence to be built at Australian Level 3 airports, if not already applied.



The new entrant rule is based on the concept of allowing priority to carriers who operate a small number of flights (or do not yet operate) at the specific coordinated airport. A New Entrant is defined by the number of slots held on a specific day of the week. The rule has promoted access at the world's most congested airports, but – as with every aspect of the slot process – it relies on there being capacity available.

There needs to be a balance between (i) providing access priority to new entrants and enabling their growth to compete with other carriers against (ii) ensuring stability for growth and investment among other carriers – which includes a number of carriers with larger market share who may be best placed in some markets to compete with the leading carrier. With this balance comes the optimal use of scarce capacity to match consumer demand. We maintain that the pool should be split 50/50 between new entrant and non-new-entrant requests to provide optimal balance.

Airlines base their decision to enter an airport and operate between two markets on an analysis of the market demand, their ability to build and grow the route, and the opportunities to compete with other carriers in providing consumer benefits. Airlines also look at network benefits; significant efficiencies are gained through being able to link multiple routes together. Of course, coordinators can only allocate slots to the requests actually presented each season: strategy and route development is an input from airlines, airports, and government, ultimately underlined by consumer demand.

When a carrier has entered an airport as a new entrant with less than daily services, there should be a priority for that carrier to grow their operation to a daily frequency within the new entrant allocation pool, and if possible and requested, with aligned timings.

The WASG definition is the result of analysis jointly carried out by a group of globally representative airlines, airports and coordinators prior to the formation of the WASB. To identify the appropriate number of slots held to be eligible for new entrant status. The group tested various definitions at 20 airports worldwide, including Sydney Airport. The results reflect the common distribution of operations with longer haul international airlines often only operating once or twice per day, while the limited number of based, domestic and regional carriers may wish to operate many more. The definition is therefore a balance between capturing enough airlines who want more access, but without making all carriers eligible. For example, a definition change to less than nine would mean 95% of carriers at Sydney Airport would be considered New Entrants.

***WASG New Entrant definition:***

*An airline requesting a series of slots at an airport on any day where, if the airline's request were accepted, it would hold fewer than 7 slots at that airport on that day. In other words, an airline could schedule 3 rotations per day (3 arrivals and 3 departures, requiring 6 slots) as a new entrant.*

The Harris Review recognised the SADM Scheme New Entrant Definition was out of step with the WASG, and considered the principle of allowing more carriers to qualify for opportunities to compete is desirable. The Review expected about 10% of carriers at Sydney Airport to benefit from an alignment with the WASG.

**Balancing New Entrant Access and Competition on Routes**

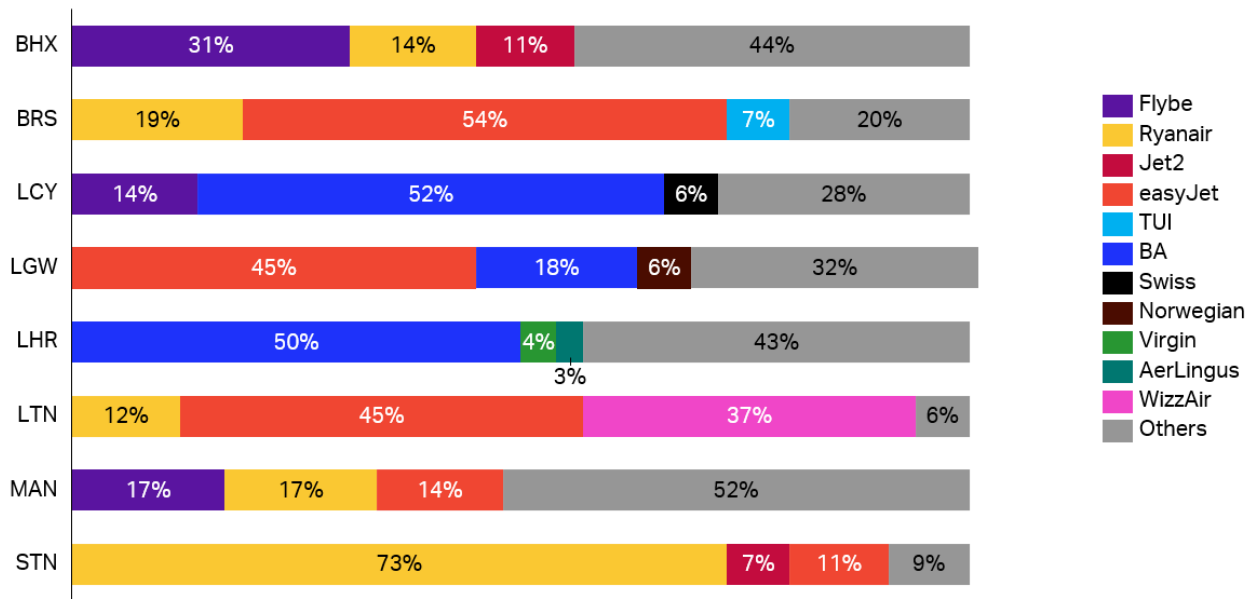
IATA does not support new entrant status based solely on route competition. We believe this would distort fair and neutral access to the market, given that many carriers operate from a single base and can therefore only offer service between two distinct markets. Airlines with multiple bases or the home-based carrier at the specific airport would have an unfair advantage in utilising such a priority. Including such requests in the new entrant pool would also overwhelm it, unfairly diluting the benefits to new entrants by including requests from incumbents for route competition.

Instead, we support the clarification of the WASG additional criteria to provide priority to requests that would increase competition on a given route. As with all of the additional criteria, this priority would be balanced against the other priorities set forth in this section when making an allocation decision, such that it would not be the sole deciding factor. Explicitly listing this priority (which is covered by implication under the current additional criteria supporting competition) would emphasise to coordinators that competition on routes should be encouraged through the allocation process.

**Entry & Growth Have Been Achieved (UK case study)**

A UK case study details the access and growth achieved by airlines seeking to compete at congested airports. Analysis of the UK aviation market with the current regulation shows low-cost carriers hold the largest carrier share at five of eight Level 3 UK airports. This demonstrates the accessibility this 'newer' business model has had at congested Level 3 airports within the last 15 years, whilst the WSG (former to WASG)-based EU Slot Regulation 95/93 has been in place. These carriers are competing and providing a high share of flights, built through the existing rules for entry and growth of slot portfolios.

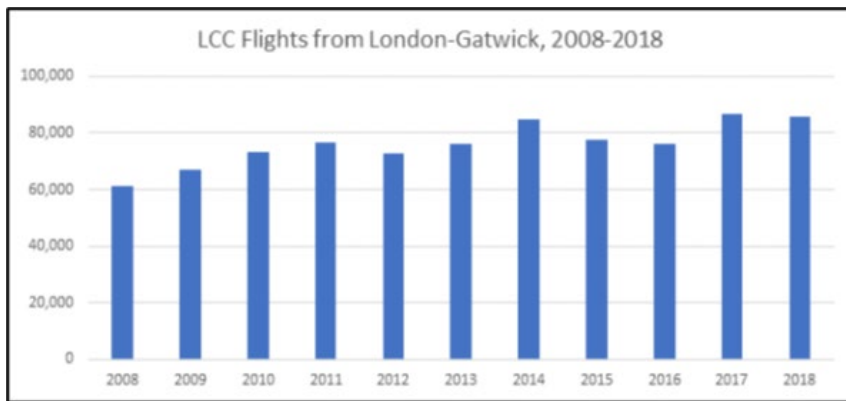
Figure 7: Slot Share at L3 UK Airports, 2019



Source: Eurocontrol, Low Cost Aviation infographic 2016, ICF for ACI Europe, Identifying the Drivers of Air Fares, May 2018

In the UK, low-cost carriers have thrived and continue to thrive at congested airports. These are major airports that were busy 20 years ago, where despite capacity constraints low-cost carriers were able to gain access, compete with incumbents, and ultimately become major incumbents themselves. Figure 2 is an example showing the growth of low-cost carriers at an already congested London Gatwick airport. Prior to the COVID pandemic, around 58% of low-cost carrier traffic from the UK departed from a slot-coordinated airport, with 54% of seats from Level 3 airports provided by low-cost carriers.

Figure 8: Low Cost Carrier Flights from London to Gatwick, 2008-2018



Source: IATA Economics based on SRS Analyzer

The conversation has moved away from a simple distinction between low-cost vs legacy carriers, focusing instead on a broad range of airline models delivering choice and frequency, competition on routes, and connectivity – all delivering benefits to the consumer. Each airline model has different needs, and these airlines are serving these through their differentiated products and networks, despite a lack of airport capacity. Incumbents and new entrants all need a system that balances access, stability of schedules, and flexible use of slots to best meet consumer demand. Past experience has proven that the WASG provides this balance. Other examples can be drawn on such as the development and growth of low-cost carriers at both Paris Orly and Amsterdam Schiphol Airport.

### Adopt WASG Slot Monitoring Framework

The Aviation Green Paper refers to airlines potentially "manipulating the slot rules, particularly the need to use at least 80% of the time, to maintain access to more slots than they use." The WASG slot monitoring framework brings clarity to these concerns and manages cases of proven slot misuse. Holding slots without an intent to use those slots, or to deny capacity to other operators, are just two types of slot misuse. The WASG definition however is much broader:

- Operating at a Level 3 airport without an allocated slot;



- Operating a flight at a significantly different time from the allocated slot;
- Operating a flight in a significantly different way to the allocated slot – including a different service type, aircraft subtype, aircraft capacity, or origin/destination – without the prior confirmation of the coordinator as set out in 8.10;
- Holding slots that the airline or other aircraft operator does not intend to operate, transfer, swap, or use in a shared operation;
- Holding slots for an operation other than that planned for the purpose of denying capacity to another airline or aircraft operator;
- Requesting new slots that the airline or other aircraft operator does not intend to operate;
- Requesting slots for an operation other than that indicated, with the intention of gaining improved priority; or
- Where applicable, operating in curfew or another restricted operations period without holding an allocated slot for that period.

The detection of slot misuse is important and must not be based upon speculation. As such it is carried out by the independent slot coordinator and slot misuse is established based upon communication between the coordinator and the airline. It is vital to understand the reasons behind apparent slot misuse as operational disruption or legitimate changes of plans may be misinterpreted.

IATA recommends the alignment of the legislation penalties with the enforcement actions published in the WASG. In our experience the most effective method of compliance is communication between the coordinator and airline. Once an airline is alerted to its activities not meeting expectations, it can take steps to improve its aspects of its performance. A good example of this is the Performance Improvement Plan that is used by some coordinators, such as at London Heathrow Airport. The approach agrees a period of improvement based upon the circumstances and disruption that is being caused.

If the airline-coordinator dialogue process is unsuccessful, enforcement action should be considered for intentional or repeated slot misuse. We recommend the ability for the issuance of a formal warning prior to further enforcement action, but if this remains unsuccessful, then there should be an ability for the following enforcement actions to be considered:

- Referral of the matter to the airport's Coordination Committee or other competent body;
- Loss of historic precedence for the series of slots involved in the next equivalent season;
- A lower priority for that airline for new future slot requests in the next equivalent season;
- Withdrawal of the series of slots involved for the remaining portion of the current season; or
- Sanctions (including financial sanctions) under applicable law.

The Harris Review identified the Sydney Airport compliance solution was outdated and considered the application of the WASG slot monitoring framework as a valuable addition to Scheme credibility. IATA recommends the same WASG policy be applied at all Level 3 airports across Australia.

## **80/20**

The Harris Review also gave consideration to a possible change in the utilisation rate, for example, from 80/20 to 90/10. But the Harris Review found no evidence to justify such a change and highlighted there should instead be greater scrutiny of cancellation data and compliance.

Risk is also present in raising the utilisation rate since it restricts the airline ability to match flights to demand. For example, if demand exists to operate 85% of a series, a 90% utilisation rate would simply encourage the airline to fly additional flights despite the lack of operational and environmental sustainability.

IATA fully supports the Harris Review, we do not support a change in the utilisation rate and agree that concerns around the manipulation of cancellations should be managed by an effective slot monitoring framework.

The globally accepted 80/20 rule provides air carriers with the ability to cope with planned and unforeseen events (aircraft maintenance, adverse weather conditions, ATC delays, technical problems, etc.) which can force airlines to cancel flights. If, as a result of these unavoidable events airlines lose whole series of slots for the next season, the indispensable certainty of access and consistency of schedules will be jeopardised from one season to the next and future bookings of passengers, ultimately disrupted. The current reliability of air services demonstrates the 80/20 rule is working well.

The existence of the 80/20 rule does not mean 20% of capacity is not utilised. At many congested airports globally, the capacity is used to 95% or more, and the most congested airports globally, are typically realising airport capacity utilisation levels that exceed 99%.

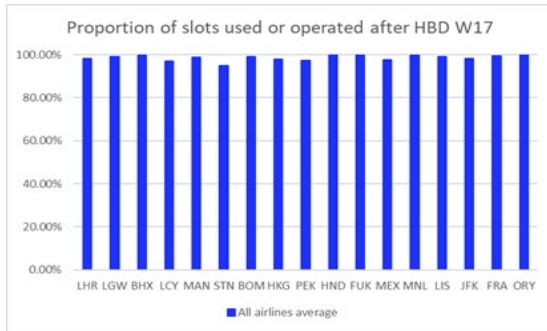
During the Strategic Review of the Worldwide Slot Guidelines (former to WASG) an Historic Determination Task Force was set up by the industry and included airport, coordinator and airline representation. The task force analysed the utilisation of



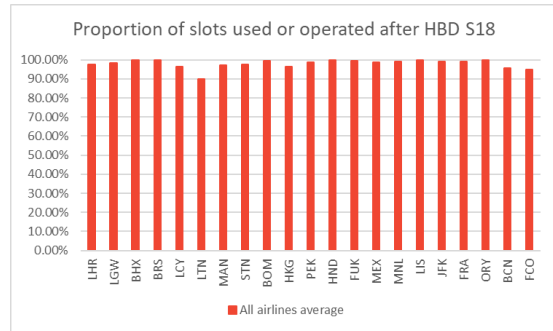
slots at globally congested airports and identified 94% of slot series are utilised to more than 90% of the allocated series. Having identified that slot utilisation was not a concern the group considered the factors that impact the ability of airlines to plan and fly. The range of circumstances were wide and varied. Some could be planned for but others not. On balance, the task force made no recommendation for a change to the 80/20 rule.

IATA has since surveyed a range of airlines operating to various Level 3 airports and analysed the change in slot holding after the Historic Baseline Date (HBD). Figure 1 illustrates the typical utilisation of slots that are subject to the 80:20 rule.

Figure 9: Utilisation of slots series that are subject to the 80:20 rule



Source: IATA consultation with airlines operating to the Level 3 airports



Source: IATA consultation with airlines operating to Level 3 airports.

IATA's investigation into the effectiveness of the 80:20 rule identified the ability to cancel 20% of a series without loss of historic precedence, does not reflect typical behaviour. In fact, our research shows just 2% of slots were cancelled during this period in the Winter 2017 season, and just 1.7% of slots were cancelled in the Summer 2018 season.

The airlines were asked what circumstances could lead to the full 80:20 flexibility being used? There was little experience with this scenario, but the following advice was received:

- "This will happen very occasionally where there are extenuating circumstances, for example trade (demand) fluctuations or problems with aircraft (delayed certification; delay in aircraft delivery)."
- "This is a small percentage in our portfolio, maybe 2% and this only happens when with a short notice and for reasons out of our control, we need to make a considerable number of cancellations in one specific season, but we are interested in operating the flight the next equivalent seasons."
- "If this happens it is typically due to unexpected changes in consumer demand in a particular market."

All other airlines surveyed advised they had not needed to utilise the full range of flexibility, which confirms our understanding that its use is restricted to the rarest of cases where uncertainty is greatest. The 80:20 rule therefore provides flexibility when it is most needed, but it is not typically used.

### Slot Optimisation Meetings

Slot optimisation meetings are another way to help ensure the efficiency of slot allocation, and one IATA recommends helping optimise the allocation of slots with demand, and for spare capacity to be reallocated to help waitlisted airlines gain access.

IATA understands slot optimisation meetings may already take place at some Australian Level 3 airports, but we encourage their introduction across all Australian Level 3 airports.

### Coordination Committee meetings

Coordination Committee meetings are a vital form of community communication with multiple benefits. Committee consultation is crucial in supporting access and new competition in a balanced way through a consideration for the capacity being declared, the coordination parameters, how slots have been allocated, and how slots are being used. Its principal tasks include:

- Advising on the possibilities of adjusting the capacity of the airport.
- Consulting on capacity and coordination parameters, on which slot allocation are based.
- Advising on ways of achieving a better utilisation of the capacity available.
- Considering any serious problems for new entrants at the airport concerned.
- Advising on methods and parameters of slot monitoring.
- Mediation in case of complaints from airlines or other aircraft operators related to slot allocation or slot monitoring.



Where a slot performance or compliance committee is established, the coordination committee will often oversee this. IATA strongly recommends the establishment of coordination committees at all Level 3 airports.

### **Airport Capacity Declarations**

Making airport capacity available is the surest way to supporting competition and connectivity. The WASG requires airports to regularly review the airport facility capability and to tailor the declared capacity to demand as closely as possible, following consultation with the airlines, and other key stakeholders. New planning and operational procedures, sufficient airport resourcing, and the regular consideration of demand pressure points, can result in increased capacity declarations and subsequent access provisions, without the need for facility expansion or schedule disruption to existing carriers. Unfortunately, some airports do not pay enough attention to efficiently providing capacity and do not carry out regular demand and capacity assessments. In such cases there is often an over reliance on airport coordination measures to find solutions.

IATA encourages a requirement for regular demand and capacity assessments to ensure all available capacity is declared at Australian Level 3 airports.

### **Western Sydney International Airport**

The need for airport coordination at congested airports reflects the reality that demand for air services continues to outperform the development of airport capacity. The consistent application of the WASG will make efficient use of scarce airport capacity, but they are not a replacement for new capacity.

The opening of WSI is anticipated to bring welcome relief to carriers wishing to serve the region, resulting in increased competition and consumer choice. The peak times that are currently unavailable at Sydney Kingsford Smith Airport may become less congested if airlines choose to split operations across the airports, and the peaks themselves may reduce in duration.

The exact models and offerings at Western Sydney International Airport are not yet known and there is no typical model expected by looking to other cities with multiple airports, but whether point to point and hub operations choose to develop together or separately, the result will initially represent an element of shared demand, and increased access opportunities.

### **A global solution for a global industry**

Aviation is a global industry that requires global solutions. This is especially important when considering the allocation of slots and therefore the rights to fly. The consistent application of the WASG at both ends of every route provide airlines and jurisdictions with fair and equal treatment. Most vital is the need for airport slot coordination to be applied in a consistently neutral, transparent, and nondiscriminatory manner. This approach ensures all stakeholders may have confidence in the capacity declaration process, slot allocation and monitoring decisions. The WASG purposefully promotes the efficient use of scarce airport capacity and isolates airport slot coordination from the potential effects of political or bilateral negotiations where one party may have greater leverage.

### **Review of the Sydney Airport Demand Management Scheme**

IATA appreciates the high level of consultation that has taken place during the review of the Sydney Demand Management Scheme, and fully supports the Harris Review noting an alignment to the WASG and compliance form the basis of slot allocation credibility. The subsequent proposals made by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts in June 2023, for updating the Sydney Airport Demand Management Scheme, are a positive step towards a closer alignment to the WASG and in addressing the concerns included in the Aviation Green Paper.

The following IATA positions were made to complement the recommendations made in the Review of the Sydney Airport Demand Management Scheme by Peter Harris AO:

- IATA supported recommendation 3.2 that the Scheme adopt the definition of new entrant as now included in the WASG.
- IATA supported recommendation 3.3 that the Scheme 2013 (S 19 (2) c (i)) be amended to remove the preference for changes to historic slots to rank ahead of new entrant slot allocation requests.
- IATA supported recommendation 5.4 that the WASG standard for slot misuse should be adopted in full for use in the Sydney Airport slot management scheme.
- IATA supported recommendation 5.1, for the following improvements from the WASG to be adopted at Sydney Airport under demand management arrangements:
  - No longer requiring that the Compliance Committee or Slot Manager review slot performance against a size of aircraft test, consistent with the WASG, unless the Slot Manager has advised a carrier at the time a slot



is allocated that the size of aircraft was the determining factor in allocating the slot or slots and so must be utilised.

- Adopt the definition of a slot from the WASG, clarifying that allocation of a slot extends to ensuring that an operator has the right to use the full range of airport infrastructure necessary to perform a movement.

The following IATA proposals were made to complement the recommendations made in the Review of the Sydney Airport Demand Management Scheme by Peter Harris AO:

- IATA proposed there to be no split or duplicate slot coordinator role. A fully functionally and financially independent coordinator must be appointed with the responsibility to allocate slots in accordance with Review Recommendation 5.1.2.
- IATA proposed the removal of the “size of aircraft test”.
- IATA proposed the Scheme fully adopt the principles of slot allocation detailed in WASG Chapter 8.
- IATA proposed the broadening of the Slot Compliance Committee role, to that of a Coordination Committee as detailed at WASG 5.6

More generally, IATA strongly emphasises the need for consistent slot policy globally, aligned to the WASG, to ensure the economic and social benefits of aviation can be realised.

It is IATA’s belief that through the selective implementation of the Harris Review (while taking into account the additional capacity for the Sydney basin in coming years with the opening of WSI), strengthening of APPs and adopting WASG guidelines, including those on new entrants, Australia’s airport system will be well set up for success to 2050 and beyond.



## Chapter 4 - Regional and remote aviation services

### 4.1 The role of airlines and airports in supporting regional economies

- *Where should the Australian Government focus its engagement in regional and remote aviation, including helping achieve Closing the Gap outcomes, noting established state, territory and local government responsibilities and programs?*
- *Traditionally, subsidies for intra-state aviation services have been carried by state and territory governments. Does this remain the best structure?*

#### Key Recommendations

1. Implement policies that complement and enhance state-based policies to ensure the viability of airlines serving regional and remote communities.
2. Provide incentives and subsidies for airlines to operate regional routes that are essential for connectivity and economic development, such as fare caps and community fares and resident fares programs.
3. Support the adoption of new technologies and fuels that reduce the carbon footprint including electric and hydrogen aircraft, as well as sustainable aviation fuel.

It is IATA's belief that the Australian Government should focus engagement in regional and remote aviation in the key areas of policy that support and enhance state-based policies focusing on incentives and subsidies, as well as through sustainability and safety and operational reliability.

#### Policies

In a nation as vast as Australia, and with a significant spread of regional and remote communities, it is important that the Federal Government instigates policies that support and enhance state-based policies, while also ensuring the long-term viability and sustainability of airlines servicing the full breadth of the country. This support can take many forms and must take into consideration the high costs of regional operations, due to the cost and availability of associated infrastructure, coupled with the lower passenger numbers to support services.

IATA notes the efforts made by various state-based players, including Federal and State Governments who support services operating to remote ports onshore and in external territories, which otherwise would not be possible. IATA understand the economic needs that necessitate the regulation of the very limited number of low-traffic routes that provide essential connectivity from regional and remote communities to major Australian regional centres. It is important that any financial support for these routes and markets to ensure their viability comes from government, and any cross-subsidy from operations at non-regional airports should be carefully reviewed so as to prevent market distortion.

IATA has also observed the efforts made in reducing the number of regulated routes over the last decade where markets that have surpassed passenger thresholds, have been deregulated and thus seen the introduction of additional airlines, capacity, and passenger numbers. Through the increase in passenger traffic, this has led to various stakeholders investing in the ground infrastructure in these regional ports, which is essential to ensuring the long-term viability of the services.

#### Sustainability

Aviation allows those living in regional and remote communities to access major centres more easily. In the shift toward decarbonisation, we understand that regional ports will be at the forefront in any such moves, with airlines and aircraft manufacturers on track produce electric and hydrogen aircraft which will initially operate on these shorter sectors. Through utilising more energy-efficient, lower-emitting aircraft, these airlines are seeking to ensure the long-term sustainability of their operations to regional ports. Similarly, commitments by Qantas and Virgin Australia to have SAF as part of their decarbonisation strategies, which will ultimately include their services to regional and remote ports, will allow for the longer-term sustainability of their services to these markets.

In acknowledging the paths chosen by IATA members (and indeed non-members) toward decarbonisation and the sustainability and viability of operations, it is critical to acknowledge the challenges that come with these paths forward. This includes the transportation and provision of SAF, as well as ensuring that the energy requirements of electric and hydrogen aircraft can be supported by relevant infrastructure in regional and remote ports.

#### Safety and Operational Reliability

While ensuring that air services to regional and remote markets are economically viable and sustainable for airlines and consumers alike, the Government must also ensure that these services are operated in a safe manner. Beyond the scope and



recommendations outlined in the April 2023 security reform proposal<sup>26</sup>, IATA is concerned by the incursion of drones to uncontrolled airspace surrounding regional and remote airports. It is crucial that the Government maintains a hard-line approach to ensure that drones are a substantial distance away from airport approach paths, and that airlines are not at greater risk of drone impact in uncontrolled airspace compared to the controlled airspace of capital cities and major centres. It is IATA's perspective that a preventative approach must be taken as to avoid any drone incursions which have the potential to cause dire consequences.

In addition to taking a hardline approach to ensure that citizen drone incursions are reduced, advances in Communications, Navigation, Surveillance (CNS) systems will provide tools for safety and more efficient management of remote airspace. Performance based concepts permit air-routes based on safety-by-design whilst providing enhanced efficiencies for airspace users. Augmentation technologies also prove more accurate and reliable approaches enhancing safety and improving access to airports in circumstances where weather conditions have deteriorated. This is crucial in impacted ports where there may be limited meteorology facilities, and thus airlines are required to interpret broader weather predictions and readings to determine whether it is feasible to land on the runway. Similarly, it will improve the opportunity for aircraft to successfully land, rather than divert to alternate ports.

Further to this, space-based solutions such as Automatic Dependent Surveillance-Broadcast (ADS-B) (introduced in Singapore for Situational awareness since 2019, and in India in early 2021) and VHF communications (under R&D) will allow an alternative to terrestrial communications and traditional surveillance means, while providing in some cases a different approach on service-based use instead of one-time capital investment.

Space-based solutions aim to provide 100% global coverage for communications surveillance of air traffic, covering areas where ground-based solutions are not available, such as oceanic and remote regions. Several companies are currently launching research and development projects, including several start-ups, such as Australia-based Skykraft.

Skykraft is an Australian space services company which builds satellites to improve communication between air traffic control and aircraft flying in remote areas. Currently, Skykraft is developing new space-based services to increase air safety and address gaps in surveillance and communications for aircraft travelling across oceanic or remote areas that are limited by ground-based communications infrastructure.

Airservices Australia has expressed their increasing interest in integrating space-based technologies to enhance air traffic management service, and a great opportunity to support an Australian company develop new sovereign capability with potential to provide near continuous surveillance reporting and higher fidelity communications, benefiting the global aviation industry. Skykraft claims to have completed the first trial of space-based VHF voice communications for Air Traffic Management in July 2023 with Airservices Australia. Currently, Skykraft claims to be preparing a first proof of concept with the launched satellites.

Additionally, Airservices Australia claims that space-based technologies provide an opportunity to enhance safety, efficiency, and capacity, while reducing overall infrastructure costs associated with the current ground-based networks.

IATA and its members are certain that through implementing the right policy and regulatory settings at a Federal level, Australia's regional and remote aviation markets will continue to prosper in a manner that is safe, operationally reliable, economically viable and sustainable.

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<sup>26</sup> Proposed Reform to Australia's Aviation and Maritime Security Settings, Department of Home Affairs (<https://www.cisc.gov.au/resources-contact-information-subsite/Documents/discussion-paper-aviation-maritime-security-settings.pdf>)

## Chapter 5 - Maximising aviation's contribution to net zero

### 5.1 Opportunities and challenges in decarbonising aviation

- *How can Government work with industry to ensure a strong and sustainable aviation sector that supports emissions reduction targets while growing jobs and innovation?*
- *Given there are a number of measures that industry and government could pursue to help achieve net zero by 2050 in aviation, are there specific measures that more emphasis and support should be given to?*
- *What should be included in relation to aviation in the Australian Government's Transport and Infrastructure Net Zero Roadmap and Action Plan (including for sectors, such as GA and airports)?*
- *How can the Australian Government ensure all emitters in the aviation sector play a role in meeting Australia's emissions reduction targets?*

#### Key Recommendations

1. Given SAF's technological maturity and its recognition as a key decarbonization lever, it is imperative that the Government must expediently put together a supportive policy framework that focuses on increasing the production and consumption of SAF by Australia's aviation industry.
2. The government must invest public funds and implement measures to de-risk or catalyse private sector investment into industries that will help Australian aviation decarbonize, including a domestic SAF industry.
3. While conceiving new policies for the Australian sector, they should be in harmony with prevalent policies, while also exploiting synergies between the two.

#### Supporting emissions reduction targets while growing jobs and innovation

While the levers to decarbonise aviation are clear in the context of these roadmaps, it is the collective responsibility of the governments and the industry, to facilitate the implementation of these levers. Here, "industry" implies the aviation sector, along with its various support industries, including airports, fuel producers, and suppliers. In this spirit, it is encouraging to see the Australian Government actively considering the aviation industry's concerns, through IATA, in the development and implementation of policies, which is crucial for their success.

The Aviation Green Paper has rightfully recognised the key role that the industry plays in the country's connectivity and economy. Notably, to continue availing these benefits, the Government has expressed that "aviation services need to be reliable, competitive and affordable." Therefore, while considering policies to implement the different decarbonisation levers, the government needs to give particular attention to their cost-effectiveness and the additional financial burden they would create for airlines and their end customers – the Australian people. Furthermore, Australia's aviation industry is already subject to annual emission reduction requirements through the Safeguard Mechanism. Any additional regulatory requirements should attempt to exploit synergies between prevalent legislation/schemes. Therefore, IATA views the government's intent to institute a Transport and Infrastructure Net Zero Roadmap and Action Plan and the Aviation White Paper as opportunities to establish a comprehensive policy support framework to help the sector decarbonise, implementing positive policies and maximizing synergies between them. IATA is keen to continue playing a facilitative role in conceiving this framework. The inclusion of key airlines currently in the Australian Jet Zero Council is encouraging, and we look forward to pursuing other avenues to extend our collaboration.

SAF is the most significant and mature decarbonisation lever. As outlined in CSIRO's SAF Roadmap<sup>27</sup> Australia's SAF industry (i.e. abundant feedstocks, lack of refining capacities), is ripe for innovation, ramping up production and, therefore, the creation of new jobs. However, positive policy instruments must be put in place to realise this goal. For example, the Clean Fuels Alliance of the USA estimates their renewable fuel market currently supports over 75,000 direct jobs, pays US\$3.6 billion in annual wages, and is at the centre of more than US\$23.2 billion in economic activity each year. Moreover, for every 300,000Mt of renewable fuel production, there is estimated to be an incremental creation of over 3,000 jobs and US\$1 billion in economic stimulation across the likes of farmers, producers, and distributors, among many others. By incentivising onshore SAF production, the USA has been able to drive domestic SAF uptake, both in terms of production and utilisation, thus helping its airlines decarbonise.

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<sup>27</sup> Sustainable Aviation Fuel Roadmap, CSIRO (<https://www.csiro.au/-/media/Energy/Sustainable-Aviation-Fuel/Sustainable-Aviation-Fuel-Roadmap.pdf>)



## Key decarbonisation measures requiring industry and government support

Of the different decarbonisation levers, SAF is currently the most mature option and, as outlined in IATA's Net Zero Roadmaps, is expected to contribute the most emissions reduction for the aviation sector globally by 2050. However, this statement presupposes that sufficient SAF will be available for airlines to uplift in the future, demanding appropriate SAF support policies. Presently, there is a deficit of SAF production facilities in Australia, which will see the broader region lag behind in the global context. IATA is pleased to note that its SAF Deployment Policy Paper<sup>28</sup> has been considered in the Aviation Green Paper, and we support the points that have been provided.

Government policy has an instrumental role to play in the deployment of SAF. IATA encourages policies that are harmonised across countries and industries, while being technology and feedstock-agnostic. Incentives should be used to accelerate SAF deployment. Given that SAF is in the early stages of market development, mandates should only be used if they are part of a broader strategy to increase the production of SAF and complemented with incentive programs that facilitate innovation, scale-up, and unit cost reduction.

A thorough analysis of Australia's current SAF supply chain will help clarify the exact basket of support policies to consider for the policy framework. SAF policies such as tax credits, gap payments, and direct incentivisation (for example, the USA's SAF Grand Challenge and instruments under the 2022 Inflation Reduction Act), that help to bring down the cost of production, and therefore opportunity cost, for a renewable fuel producer to deliver higher volumes of SAF from their facility will be essential. This is since SAF generally achieves lower profit margins, as a more expensive fuel for producers to deliver, relative to other co-products like renewable diesel. As a sector-agnostic player, biorefiners will tend to optimise their capacity around the fuels achieving higher returns. In turn, public investment and finance should be delivered not only to help build local renewable fuel capacity, but also to help aviation gain access to sufficient volumes of SAF from biorefineries who otherwise sector agnostic are likely to favour fuels with higher margins. Similarly, the Government should consider the needs of Australia's Pacific neighbours who face greater challenges with onshore SAF production due to the limited land mass in these jurisdictions to generate feedstock. Through displaying this leadership in the region, Australia could establish synergies with its neighbours like with Aotearoa New Zealand and the Pacific Islands where there has been an appetite to develop a SAF industry.

The government could also explore blended finance (a public-private partnership), a financing approach that combines public and private sector funding to mobilise additional investment in development projects and initiatives. The goal of blended finance is to attract private sector investment to projects and sectors that have a clear development impact but may not be considered commercially viable by investors, as is the case for SAF production. The most common form of blended finance is the use of public or philanthropic funds, such as development finance or grant funding, to de-risk or catalyse private sector investment. This can take the form of guarantees, credit enhancements, or other forms of risk mitigation. By reducing the perceived risk of the investment, blended finance could make it more attractive to private investors and encourage them to invest in projects such as SAF production that they may not have otherwise considered.

## Australian Government Transport and Infrastructure Net Zero Roadmap and Action Plan

The aviation sectoral roadmap should include a translation of all the decarbonisation levers highlighted in the IATA Net Zero Roadmaps:

1. Reduce aircraft energy use: deploy more efficient aircraft, improve air traffic management and operations at the airports.
2. Change the fuel and reduce its carbon footprint: increase SAF use and adopt hydrogen and electric aircraft upon their technological maturity in relevant size-classes.
3. Re-capture/offset the carbon dioxide which could not be avoided: given that reliance on conventional jet fuel will continue, offsetting and carbon capture should be given space in policy considerations.

Policy considerations for SAF has already been discussed previously. Additionally, given it is SAF's feedstock that informs the relevant production technology, it is essential that the Government is able to appropriately identify which feedstocks pertain to which regions of the country, as this will directly link to what type of biorefinery, and value chain will need to be created. For example, Queensland's sugarcane industry produces a wide range of viable sugary waste and by-product sources for feedstock. This will lend itself to the output of Alcohol-to-Jet SAF and is being championed by Jet Zero Australia in the development of their refinery in Townsville. By contrast, in Western Australia, sources of lipid-based feedstocks such as oil-rich woody biomass (Mallee Tree), oil seeds (eg. Carinata), as well as industrial waste fats, used cooking oil and tallow, are abundant and therefore aligning with the HEFA SAF pathway. Close cross-examination of Australia's various ecosystems must be conducted, to identify regionally specific feedstock opportunities, and in turn, the appropriate biorefining technology.

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<sup>28</sup> SAF Deployment, IATA (<https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e998/saf-policy-2023.pdf>)



Furthermore, the government should include a robust SAF accounting framework, based on trusted chain-of-custody approaches, to ensure a cost-effective and environmentally efficient way to incentivize the scaling up of all technologies, feedstocks, methods, and approaches required for reducing lifecycle GHG emissions across the SAF supply chain. As detailed above, there are various feedstock options in different regions of the country. However, it would be extremely difficult and not cost-effective or environmentally efficient to supply physical SAF to all airports in Australia. A robust SAF accounting framework would allow airlines, both domestic and international, to have access to SAF and claim the environmental attributes of the SAF without using the physical product.

A robust SAF accounting approach would facilitate and accelerate SAF production and uptake in Australia by:

- Enabling and promoting SAF production where it is most efficient.
- Stimulating SAF uptake where demand would not justify local SAF production (i.e., notably in smaller airports and remote locations within and outside of Australia), or where physical supply is too expensive or otherwise impeded.
- Minimising the costs of logistics, such as transport and use of intermediate storage facilities.
- Avoiding adding GHG emissions from transportation of SAF.
- Expanding the customer base compared to if physically matching supply and demand, thus providing a clear market signal favouring the ramp up of SAF production.
- Promoting competition in a broader marketplace.
- Facilitating compliance with mandatory as well as voluntary emissions reduction schemes.

IATA is pleased to note that the Aviation Green Paper is exploring the implementation of flexible accounting arrangements, potentially through the NGER Scheme. IATA's position on SAF accounting is outlined in its Policy Paper<sup>29</sup>, specifically highlighting the key common principles that a robust SAF accounting system must integrate. IATA appreciates its relationship with various government departments and is keen to continue discussions around a flexible accounting framework and how the development and implementation in the Australian market could facilitate SAF deployment and its scale-up.

## Operations

The global air transport industry is changing, motivated by the need for higher automation and greener infrastructure. Efficiency in Air Traffic Management (ATM) results in reduced fuel burn and for every tonne of fuel saved, 3.16 tonnes of CO<sub>2</sub> emissions are abated. It is imperative that all stakeholders find solutions to deliver these efficiencies, many of which are recognised as being achievable in the near term. This is particularly important while other net zero new technologies and solutions are matured and scaled up. To a certain extent, unifying operational standards and requirements could lead to increased flight efficiency, and hence improvement in the sustainability of aviation. However, there will be situations where specific solutions will not be required in some areas. Local investment must be driven by a local and network cost and benefit assessment, to ensure that ultimately there is a benefit to the end user and that the costs of service provision are managed. They should also take into account impacts on traffic flow and efficiencies beyond Flight Information Region (FIR) boundaries.

Whilst safety remains the utmost priority for airspace regulation and management, consideration of environmental impacts are a close second. IATA members are committed to net-zero CO<sub>2</sub> emissions by 2050 in line with many countries. New technologies should be exploiting to best achieve new concepts of trajectory-based operations (TBO) that provide the most beneficial environmental outcomes without compromising safety.

User Preferred Routes, Constant Descent/Climb Operations (CDO and CCO), Free Route Airspace (FRA), and access to preferred flight levels by application of reduced PBCS-enabled separation standards are all examples of utilising new technologies for best safety and environmentally friendly outcomes.

There must also be consideration of the negative CO<sub>2</sub> emissions outcomes of continuous extensions of civil air-routes to mitigate noise issues or accommodate expanding airspace volumes for Defence operations (see below re Shared Use Airspace (SUA)). New technologies enable more options to find a better balance than currently available.

## Airports

While the carbon impacts of airports are relatively limited compared with airlines by the nature of their operations, there is a growing emphasis on airports reducing emissions to support net zero commitments. In this respect, airports have been forming strategies to mitigate their environmental impacts as an enabler for their license to operate and to grow.

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<sup>29</sup> SAF accounting based on robust chain-of-custody approaches, IATA  
([https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e998/saf-accounting-policy-paper\\_20230905\\_final.pdf](https://www.iata.org/contentassets/d13875e9ed784f75bac90f000760e998/saf-accounting-policy-paper_20230905_final.pdf))



An important point to note is airport investments in environmentally sustainable infrastructure are ultimately reflected in an airport's cost base that airlines pay for through aeronautical charges. Therefore, these investments need to be carefully considered and based on a sound business case developed in consultation with airline users.

Securing the greatest environmental benefits means supporting, and not impeding, airlines' own ability to make investments in new fleet, fuels, and technologies that can make an even larger impact on tackling the climate crisis. This requires that airports be managed efficiently with a strong focus on reducing costs and maximizing efficiency, even beyond environmental initiatives. The investments required to become a 'green airport' can be substantial, based on the need either to retrofit existing airport facilities or build new infrastructure in line with net zero carbon standards.

Developing economic regulation that supports the consultation and buy-in and support of airlines is important, to ensure investments deliver the greatest return possible in terms of both emissions' reduction and commercial return.

Further, environmental sustainability should be an integral part of airport planning requirements for airports to ensure existing infrastructure is used efficiently in advance of considering capacity enhancements.

It is important to recognise airport charges need to be kept as low as possible/affordable, enabled by effective economic regulation and efficient airport infrastructure to ensure airlines retain the ability to innovate and invest in new technology. In this context, airports have a part to play as infrastructure providers to reduce aircraft fuel burn and related emissions.

Improvements to airfield layouts and airside operations have the most significant impact on the ground, to supplement well-documented elements in the air and fuel transition to SAF. Based on studies utilising aircraft performance data, it is estimated that aircraft ground operations (taxiing and APU use) account for nearly 8% of total aircraft emissions, which is several times the amount of all other airport emissions combined. This highlights the fact that supporting airline efficiency and fuel burn reduction can have an outsized impact in reducing the industry's total emissions.

The biggest opportunities for airports to reduce GHG emissions from their own operations and the facilities they control (scope 1) and emissions from the off-site energy they purchase (scope 2) are found in the decarbonization of electricity grids, and the implementation of energy efficiency measures.

Another element to focus on is embodied carbon, that is the carbon associated with materials and construction elements during the entire lifecycle of airport infrastructure. The kg per Co2 equivalent metric commonly used to measure embodied carbon can be significant given the scale of airports from airside pavement works to car parks and complex, intensively used terminal buildings. The focus should be on functional, cost-effective infrastructure that is efficient, flexible and adaptable over time rather bespoke facilities, and that aims to minimize operational carbon. In particular, minimizing the use of concrete as one of the main contributors to carbon is important.

Making progress to becoming an environmentally sustainable industry and achieving the goal of net zero carbon by 2050 will require the active participation of all aviation stakeholders. Actions will need to be prioritized according to what is financially sustainable and has the greatest effect on reducing aviation's impact on climate change.

Airports can maximize their contribution to sustainability by ensuring that airport infrastructure costs do not impede airlines' ability to invest in new technology. This can best be done by retaining a focus on costs and efficiency while choosing green airport investments that can make a positive difference and are based on a sound business case that is supported by airlines.

Mandating a roadmap to net zero with short to longer-term measures would be a useful development for airports, on the basis that no two airports are the same, and consultation with airlines on costs, benefits and the return on investment needs to be proven.

## 5.2 Sustainable Aviation Fuel

- *What are the benefits and risks associated with updating the National Greenhouse and Energy Reporting (NGER) scheme and/or other policy mechanisms to enable unique claims on sustainable aviation fuel (SAF) sourced through common infrastructure? How can risks be managed?*
- *What types of arrangements are necessary to support industry confidence in the quality standards and sustainability certification of SAF?*
- *Should policy and regulatory settings be refined to support development of domestic SAF production capability and industry take-up of SAF?*
- *What are the current and future challenges in developing an Australian SAF production industry, including challenges associated with growing, refining and consuming feedstocks?*

### Key Recommendations

1. SAF is expected to have the largest contribution to Aviation CO<sub>2</sub> emissions reductions to achieve Net Zero Emissions by 2050. Effective policies are key to ramp up the scale up of SAF supply. At its nascent stage, it's important for the government to assist SAF facility operation through targeted incentives and tax relief measures, also to attract capital to expand SAF supply.
2. A global harmonised SAF accounting mechanism with a robust chain of custody is crucial in SAF deployment and scaling up. IATA has drawn up a list of key common principles of a robust SAF accounting approach which it recommends to the Government for their consideration.
3. IATA recommends that the Government institutes a SAF support policy framework which is feedstock and technology agnostic to allow for all kinds of SAF to contribute to the Australian aviation industry's decarbonisation.

Although not a prerequisite to developing the domestic SAF industry in Australia, flexible arrangements for SAF accounting will be a key enabler in instigating its growth by prioritising logistical optimisation. Therefore, IATA is pleased to note the Government's early recognition of this requirement, and its proactiveness in finding solutions for its implementation either through the NGER or other new schemes. IATA is to participate in this effort and has expressed its position on SAF accounting in its Policy Paper<sup>30</sup> on the subject. Particularly on managing the risks of potential mechanisms to facilitate flexible arrangements for SAF accounting, they must ensure that they fulfil the key common principles of a robust SAF accounting approach outlined in the Figure below.

Figure 10: Key Common Principles of a Robust SAF Accounting Approach

|   | Key Principle                       | Description  | Example  |
|---|-------------------------------------|--|--|
| 1 | Immutable tracking                  | Prescribing a method for achieving immutable tracking so that once data is registered into the system, it cannot be altered or edited, thereby preserving data integrity while tracking it securely throughout the supply chain. | Using blockchain technology, cloud database, or centralized electronic ledgers.  |
| 2 | Transparency                        | Achieving the level of transparency needed to provide confidence and clarity for SAF use and adoption, while allowing data protection and security to safeguard commercially sensitive data and to avoid market distortion.      | Providing different access levels for different parties/entities on a need-to-know basis only. Batch of SAF claimed under a certain incentives/subsidies shown as a tick box without specifying pricing information. |
| 3 | Verifiable environmental attributes | Incorporate procedures for certifying and auditing environmental attribute claims and maintaining transaction processes to include the retirement of credits and eliminate the possibility of double counting.                   | Prescribe the RSB, ISCC or CoSAFA, etc. SAF accounting methodology   |

<sup>30</sup> *ibid*

|    |                    |  |  |
|----|--------------------|--|--|
| 4  | No double claiming | The emissions reduction from the same batch of SAF cannot be claimed more than once under the same scope.  | The same emissions reduction under the same scope risks being used to meet both domestic and international targets simultaneously.   |
| 5  | No double issuance | More than one emissions reduction cannot be issued from the same batch of SAF.   | The emissions reduction from the same batch of SAF risks being issued in more than one operating registries.   |
| 6  | No double usage    | The emissions reduction from the same batch of SAF cannot be used more than once   | The same emissions reduction from the same batch of SAF risks being used in two different registries   |
| 7  | Inter- operability | Interoperability between registries so that unique IDs can be identified for specific batches of SAF within different operating systems to ensure no double issuance, usage, and claiming.   | Emissions reduction from the same batch of SAF is recognizable in all operating SAF accounting platforms/registries.   |
| 8  | Agnostic           | The ability to consider different types of SAF feedstocks and production pathways as well as evolving voluntary and regulatory GHG frameworks would allow claiming to take place safely, securely, and in accordance with internationally recognized standards or best practices | Ability to prescribe the appropriate chain-of-custody accounting methods for different types of SAF or low carbon fuels and consider different sustainability requirements for different regulatory or voluntary GHG frameworks. |
| 9  | Stacking           | The environmental attributes could be used to comply with different obligations and commitments if these mutually allow such claims/reporting and with an adequate level of transparency.  | To use SAF to meet any volumetric-based mandate for CORSIA or EU ETS as long as allowed by the authority, and no double counting of the same scope happens.  |
| 10 | Divisibility       | The ability to split the environmental attributes of the same batch of SAF between multiple entities/buyers.   | The same batch of SAF certified under the same certificate and delivered to the same airport, could be split between two or more different buyers.   |
| 11 | Permanence         | Once the emissions reduction has been allocated to the rightful buyer, the transaction is considered as permanent and irreversible.  | Once retired, the emissions reduction from the same batch of SAF cannot be unclaimed/put back into a registry for another claim.   |
| 12 | Vintage            | SAF vintage refers to the year that its associated emissions reduction occurred, i.3., the year when the SAF is being produced/uplifted/combusted.   | At current time, there are no specific restrictions on SAF vintage under aviation regulatory frameworks such as CORSIA and EU ETS, but this is currently being considered and discussed under voluntary frameworks.              |

### SAF certification and quality standards

Very little additional work is required to support industry confidence on quality standards and sustainability certification of SAF, beyond what is already recommended and embedded at an international level. For the sake of global harmonisation on policy, where possible, the below standards are recommended to be followed:

From a safety and fuel specification perspective, provided a SAF technology has obtained ASTM (American Society for Testing and Materials) certification, thereby:





1. Achieving D7566 as a Neat SAF product, and;
2. Once having been blended with traditional Jet A1 fuel, achieving D1655 status blended SAF product can be treated as a true, drop-in fuel solution. This implies it can be considered on-spec for delivery, with the same performance characteristics as Jet A1 fuel, with no required changes to fuel facilities, re-fuelling infrastructure, airframes, or engines. This is to say in an Australian context, provided a producer is seeking to deliver an ASTM approved technology, there should be no concerns over the safety and quality of the end SAF output.

From a sustainability certification perspective, international airlines associated with the globally adopted CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) scheme can use the purchasing and deployment of SAF as a means of reducing their carbon reduction obligations. However, for a SAF to achieve the certification required to reduce these obligations, it needs to ensure it upholds a range of broader sustainability criteria, beyond just an emission reduction factor; thereby ensuring a robustness and integrity to the wider sustainability claims of the SAF. Spanning the themes of Carbon, Environment and Socioeconomics, the 13 parameters to be upheld viably through the SAF's supply and production chain is as follows:

Figure 11: Parameters to be upheld

| Carbon Reduction        | Environment                  | Socio-Economic            |
|-------------------------|------------------------------|---------------------------|
| GHG Reduction           | Water Usage                  | Human & Labour Rights     |
| Carbon Stock            | Soil Productivity            | Land Use Rights & Changes |
| GHG Reduction Longevity | Air Quality                  | Water Use Rights          |
|                         | Conservation Protection      | Promote Local Development |
|                         | Waste & Chemical Limitations | Promote Food Security     |

This above set of criteria can comprehensively ensure the confidence in the standard of sustainability delivered by a given SAF. This certification can be pursued and obtained either directly through the CORSIA Eligible Fuel process, or through verified 3<sup>rd</sup> party bodies like the RSB and ISCC, of whom have been granted special status as independent organisations who can validate a SAF's production chain for CORSIA certification. For the sake of a globally harmonised approach, it is recommended governments developing new SAF policy frameworks adopt this approach, rather than developing one of their own from scratch, as this can cause market fragmentation and unnecessary confusion among stakeholders.

### Policy and regulatory settings to support SAF production and uptake

A specific supportive policy framework for SAF needs to be put in place following a thorough evaluation of feedstock availability and the status quo of SAF production in Australia. Domestic production of SAF would create a new industry in Australia, thus creating jobs in the shorter term to build necessary infrastructure and longer term to develop the industry, while also improving the country's energy security within a strategically important sector in aviation. Policy considerations for SAF has been outlined in Section 5.1 b).

Beyond the development of local and domestic SAF production, considerations should be made as to whether regional pacts with the broader Oceania region could be developed to enhance regional output. Australia, as a leading regional player in Oceania, is likely going to have a comparative advantage in the facilitation and development of biorefining infrastructure, relative to smaller countries especially those found in the Pacific. However, special arrangements for the pooling of feedstock from these regions, including Municipal Solid Waste, agricultural wastes and low-intrinsic value by-products could be explored.

On the one hand, this can naturally help to deliver higher volumes of SAF and renewable fuels from local infrastructure, however it can also help to deliver stronger relationships and soft power in the Pacific, as Australia can help to solve local environmental and socio-economic problems for these Island nations, who may otherwise not have the means of properly disposing or repurposing these waste sources that do cause local harm. We note that Fiji has recently expressed an interest in developing a local SAF industry to fuel Fiji Airways' flights and reduce the nation's carbon footprint.

Furthermore, given that Australia has been participating in CORSIA since 2021, domestic SAF production will facilitate Australian carriers to reduce their offsetting obligations under CORSIA, while also meeting their voluntary targets. That said, it is also important for Australia to consider measures to ensure that domestically produced SAF will be used for voluntary local SAF uptake instead of being exported overseas due to the current high prices in the global SAF market. Australia can consider direct or indirect incentives that would allow for SAF to be made available and affordable for airlines and their customers in Australia. Uptake from Australian-produced SAF would also be further incentivised if a globally harmonized



'book and claim' process is in place whereby the carbon benefits of a SAF purchase can be separated from the physical flights that it is used on. Providing SAF at subsidized prices with a book and claim process would encourage and accelerate industry take-up of SAF by Australian carriers, which would in turn greatly support Australia's efforts to reduce CO2 emissions and achieve Net Zero Emissions 2050.

### 5.3 Electric and Hydrogen Powered Aviation

- *How can policy and regulatory settings support research and development and subsequent investment in emerging low and zero emission technologies and related infrastructure?*
- *What information and guidance is needed to support regional aviation's net zero transition in the context of these emerging technologies?*

#### Key Recommendations

1. Continue to invest on the development and increased capabilities for low-carbon hydrogen, preferably green hydrogen.
2. Invest in the de-risking of hydrogen liquefaction technologies to increase Australia's LH2 capabilities, not only on infrastructure but also on human resources.
3. Invest in technology programs through academic-industrial partnerships which can de-risk and mature critical hydrogen aircraft technologies, aligned with the IATA Net Zero Roadmaps. This should be focused at demonstrably moving technologies up the TRL scale.
4. Encourage and support airports in using hydrogen on-site for non-aeronautical applications, to increase airports' experience in dealing with hydrogen storage, battery-powered vehicles, and hydrogen-powered vehicles.

It is well-recognised and respected in the aviation sector that, in addition to SAF, which is widely supported as the most critical contributor in achieving NetZero by 2050, hydrogen and electric aviation have an important role to play.

Mature technology to decarbonise the industry, like electric and hydrogen powered aircraft are set to play an important role in the future. The introduction of these technologies in the medium to long term will allow the proliferation of lower-cost, lower-emission short-haul travel, and will help the Australian Government in its achievement toward Net Zero emissions for the aviation sector.

#### Government support

As the aviation sector transitions from Jet fuel powered aircraft to SAF, hydrogen or battery-powered aircraft, it is important the government has policy and regulatory frameworks in place that have the potential to nurture the industry in its nascent stages. Without these frameworks in place, the sectorial evolution may struggle to take flight, thus putting Australia behind the curve on the global scale.

In recognising the potential for hydrogen to not only power the aviation sector, but also a multitude of other industries, the \$500 million commitment by the Australian Government in developing Regional Hydrogen Hubs and \$2 billion for the Hydrogen Head Start program are noteworthy. IATA and its members strongly believe these types of initiatives are crucial for the sector to evolve, not only to move toward decarbonisation, but also to ensure that the Australian and broader regional markets are not left lagging.

IATA implores the Government to look at how it can further support and nurture investment of the green hydrogen sector, scaling up and developing the liquefaction technologies to produce liquid hydrogen, to ensure the transportation challenges associated with hydrogen do not bear an unwieldy financial burden on the aviation sector and, indeed, the broader economy. This investment should not solely be focussed on the scaling up of electricity grids and liquefaction technologies, but also in training personnel, which will thus bolster employment in the energy and manufacturing sectors.

While acknowledging the environmental benefits that come from engaging with new propulsion technologies, there is still a lack of clarity from aircraft manufacturers around the cost of aircraft and cost of associated maintenance. As such, when developing policy, the Government must take into account the additional expenditure required of airlines to purchase this new propulsion technology, as well as the heightened propensity for the higher fuelling costs that comes with electricity and hydrogen.

IATA is currently estimating that electric aircraft (powered by hydrogen fuel cells or batteries) have the potential to enter service at a commercial scale by 2030, a belief backed up by Air New Zealand<sup>31</sup> who are aiming to have small electric aircraft

<sup>31</sup> New generation aircraft technology, Air New Zealand (<https://flightnz0.airnewzealand.co.nz/initiatives/next-generation-aircraft-technology>)



crossing the Cook Strait by 2027. We estimate that, pending the success of these operations, there will be a larger-scale uptake of electric aircraft for short-haul flying. Clean-sheet hydrogen-powered aircraft with passenger capacities of 100+ passengers are only expected to enter service beyond 2035. This lack of fiscal clarity and the longer runway to such technologies entering into service at a commercial scale mean that it would be apt for the Government to introduce policy settings that are supportive of airlines making the move toward new propulsion technologies.

Further to this, the Green Paper implies that the development of the aeronautical hydrogen industry will bear a significant cost burden to various parts of the value chain. While this statement is correct, it fails to consider that the development of the hydrogen industry will *also* be necessary in order to advance the development and utilisation of SAF, with hydrogen considered one of the lower-emitting and more efficient ways to produce SAF. IATA's Net Zero Roadmap indicates that globally 100 million tonnes of hydrogen may be needed by 2050. It is estimated that close to 90% of this hydrogen demand will come from producing SAF. Furthermore, aviation will only be one of many users of hydrogen. For example, IRENA estimates that 650 mt of hydrogen will be required by the global economy in 2050, a more than six-fold increase to what the hydrogen industry is today.

The development of an aeronautical hydrogen industry is not something that will be occurring in isolation from other decarbonisation methods and will instead be a facet that complements SAF. The development of any decarbonisation industry (or indeed any industry from any sector), whether it be SAF, electric or hydrogen propelled aircraft will require investment, and IATA implores the Government to consider the longer-term environmental and financial benefits that come with investment in hydrogen in developing policy and regulatory frameworks that allow for the industries to prosper, including, but not limited to subsidies and incentives.

### Industry capabilities

IATA recognises the moves made in the French market toward developing hydrogen infrastructure in airports. The June 2023 joint announcement by Air Liquide and Groupe ADP (Aéroports de Paris) to create an engineering and consulting joint venture, *Hydrogen Airport*<sup>32</sup>, specialising in helping airports integrate hydrogen projects within their broader infrastructure plans, shows that there is an appetite to develop the hydrogen-propulsion industry. The joint venture project team is charged with looking at the needs, both infrastructural and logistical, for developing the industry. Similarly, the New Zealand Hydrogen Aviation Consortium and their September 2023 paper, 'Launching green hydrogen powered aviation in Aotearoa New Zealand'<sup>33</sup> outlines the path to 2050 for hydrogen aviation in Aotearoa New Zealand, and where this sits in relation to broader developments in aviation technologies to serve the domestic and international markets, including SAF and electric aircraft. This document is a good representation for how Australia can develop its domestic capabilities to ensure it can meet the demands of the sector into the future, while also ensuring that one path forward is not being foregrounded over another, as each of the emerging technologies covered in this paper will have a role to play.

The Government should look more broadly at the development of the hydrogen and electric aviation industry to ensure that frameworks put in place take into account the global advancement of any such technologies. While the Green Paper understandably looks at the development of Australian-manufactured new-propulsion technology, it should not use these company's level of progress as a measure for global development. Stralis appears set to be a strong player in the Australian market, though is still in the nascent stages of development. By contrast, there are companies in Europe and the USA currently flying demonstrators, and IATA recommends the Government look to the successes of these more-advanced developments to inform the infrastructural needs and potential path for new propulsion technologies in Australia.

In contrast to the assertions propagated in the Green Paper, IATA instead believes the notion that, in the short-term, electric aircraft (powered by batteries or hydrogen fuel cells) may have a role to play on regional services, hydrogen on domestic services, and SAF on international services. As the hydrogen industry develops, there is a far higher scope for this propulsion technology to scale up, and thus have a greater impact on aviation emissions. As the technology develops, so too will the geographic range of the aircraft.

It is IATA's belief that the Government should consider liaising with airlines, airports and aircraft manufacturers to consider a sole route as a testing ground for new propulsion technologies. By focussing the attention on a 'low carbon' or 'green' corridor (with a shorter-haul sector preferred given the capabilities of electric aircraft), this will not only build the social license and broader public awareness of the sector's decarbonisation journey but will also attract revolutions and evolutions in propulsion technologies to a single point where it can be tested, before further expansion in the Australian and broader regional market.

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<sup>32</sup> Air Liquide and Groupe ADP announce the creation of "Hydrogen Airport", the first joint venture to support the development of hydrogen infrastructure in airports, Groupe ADP (<https://presse.groupeadp.fr/hydrogenairport-jv-creation/?lang=en>)

<sup>33</sup> Consortium lays pathway for green hydrogen aviation to take flight in New Zealand, Airbus (<https://www.airbus.com/en/newsroom/press-releases/2023-09-consortium-lays-pathway-for-green-hydrogen-aviation-to-take-flight>)



The Green Paper suggests that electric aircraft will allow a higher aircraft utilisation than the turboprop aircraft it will be replacing. This assertion does not consider that, beyond refuelling between sectors, aircraft also need sufficient time for the turnover of passengers, luggage, cleaning and fuelling. Australian regional airlines currently schedule 20-minute turns for their turboprop aircraft in remote ports. Ignoring the unsubstantiated claim that charging an alternate-powered aircraft may be quicker than Jet fuel, IATA does not envision the overall turn time of a regional aircraft would be quicker, especially considering these additional external factors.

It is crucial that, in acknowledging the likes of hydrogen and electric propulsion technologies as the path forward for the aviation sector, the Government consider the broader infrastructure needs of fuelling such aircraft. The utilisation of these emerging technologies will require Government investment in upgrading the electricity grid, whether it be to support hydrogen liquefaction or charging electric aircraft.

The Green Paper has aptly summarised stakeholder feedback on the establishment of a domestic SAF industry, including 'building social license for SAF through education'. It is important that the White Paper, and any subsequent roadmaps and action plans and associated policy/regulatory frameworks, will need further unpacking through clear guidance documents so as to quell any concerns from the Australian public on the integrity of these new propulsion technologies. The building of social license will then allow for further public interest and technological traction that will allow Australia and its aviation sector to deliver on its emissions reduction goal.

It is IATA's belief that through the nurturing of the nascent new propulsion industry, the Australian Government has the potential to develop an aviation sector at the forefront of the global decarbonisation journey. It is important that, in addition to supporting the SAF industry, the Government consider the policy and regulatory frameworks that can be put in place incentives to support not just the development of these technologies, but the uptake of them by airlines. Australia, with its vast distances, stands to gain socially and environmentally from the uptake of these technologies across all facets of the aviation sector.

## Chapter 6 - Airport development planning processes and consultation mechanisms

### 6.1 Noise

- *Do you have comments on how the operation and effectiveness of the Noise Complaints Information Service could be improved?*
- *How could the Australian Noise Exposure Forecast, and use of the ANEF in Government planning processes, be improved?*
- *What are appropriate, modern noise metrics that should be used to communicate aircraft noise impacts?*
- *How can governments better communicate with potential purchasers of properties which will be affected by aircraft noise in the future?*
- *How can new and different types of noise impacts from projected growth in drone use best be managed?*
- *Do these processes provide sufficient opportunity for impacts on the community to be identified and taken into account? How can they be improved?*
- *What can be done to proactively mitigate noise impacts by better informing residents and land-use planners?*
- *What else can airlines and airports do to support better management of aircraft noise?*
- *What can be done to facilitate increased adoption and implementation of the National Airports Safeguarding Framework principles for land planning to optimise land-use activity and reduce community impacts?*
- *Could governance arrangements for the Aircraft Noise Ombudsman be improved to provide greater independence, including publishing its findings and reports?*
- *Are there opportunities to improve transparency by publishing information about other decisions made by Civil Aviation Safety Authority (CASA), Airservices or airports around flight paths, and how aircraft approach and depart airports?*
- *How can the flight path design principles be improved?*

#### Key Recommendations

1. ICAO's Balanced Approach should always be considered to ensure noise concerns of local residents are balanced with protecting the huge social and economic benefits of an airport's connectivity for all of Australia.
2. Changes to flight paths and noise operating procedures should not impact safety and efforts towards net-zero by 2050.

The noise generated by aircraft has been reduced by 75% over the last 50 years, and this progress continues. Today's aircraft entering service have on average, a noise footprint that is at least 15% smaller than that of the aircraft they are replacing thanks to new engine and airframe design and technology. Manufacturers are constantly optimising their aircraft while new supersonic and hybrid technologies will open the door to quieter planes.

Although new aircraft are quieter than older ones and the noise footprint around airports has shrunk, the growth in flight operations has increased local community's annoyance and sleep disturbance, leading to ad-hoc operations restrictions, such as limiting the number of flights, banning certain aircraft types, or prohibiting night operations, without undertaking the ICAO's Balanced Approach to Aircraft Noise Management (the ICAO Balanced Approach). Therefore, it is very important to keep the Airservices Australia's approach to aircraft noise management and the Australian Government regulatory approach to aircraft noise drawn on ICAO's Balanced Approach.

Whilst IATA and its member airlines fully support the principles and practices outlined in the ICAO Balanced Approach when it comes to noise management, we continue to work diligently to ensure and advocate operations restrictions to be implemented at last resort while ensuring safety of flight remains the primary aviation concern.

For more information on the industry position, please refer to IATA's Balanced Approach to Aircraft Noise Management position paper<sup>34</sup>.

#### Recommended improvements to managing community impacts of noise

##### Noise Complaints and Information Service (NCIS)

The operation and effectiveness of the NCIS could be improved by addressing the concerns raised about the level of resourcing and transparency around the existing complaint response process.

<sup>34</sup> The balanced approach to aircraft noise management, IATA (<https://www.iata.org/contentassets/1be02a5889fb439c902f654737e89fbe/fact-sheet-on-the-balanced-approach-2023-final-17-august.pdf>)



To improve the level of resourcing, the NCIS could:

- Improve data collection and analysis. The more data are collected on noise levels and noise complaints, the more NCIS could identify trends and could report them to find solutions. Data could not only be collected through the complaints forms but also using noise monitoring systems, and surveys.
- Communicate better with the community about noise issues. This could be achievable through bi-yearly reports, public awareness campaigns, or community engagement.
- Work closely with the Aircraft Noise Ombudsman (ANO) to identify the solutions and implement their recommendations. Both entities strive to mitigate noise impact on community, and only with collaborative work and strategy could noise complaints be addressed better.

To improve transparency around the existing complaint response process, the NCIS could implement these following measures:

- Publish anonymized complaint data and statistics on the number and nature of noise complaints received, the outcomes of investigations, and the actions taken to address complaints. For the moment, there is no such information on the NCIS webpage. This data could be presented in a clear and concise manner, allowing the public to track the NCIS's performance and identify areas for improvement.
- Keep complainants informed about the progress of their complaints, including when investigations are initiated, when decisions are made, and when actions are taken to address the noise issues. This can be done through email updates or a dedicated online portal.
- Publish the standard operating procedures governing how noise complaints are handled, including criteria for assessing complaints, decision-making frameworks, and escalation processes. This transparency allows the public to understand the NCIS's approach to complaint handling and ensures consistency in applying those standards.
- Together with ANO, establish a formal process for complainants to appeal decisions or raise concerns about the handling of their complaints.
- Continuously seek feedback from the public on the NCIS's complaint response process to identify the areas where improvements are needed and to demonstrate that NCIS's efforts are aligned with the concerns of the community. This could be achieved through questionnaires submitted to complainants after the closure of their complaints.

#### Aircraft Noise Ombudsman

Governance arrangements for the Aircraft Noise Ombudsman (ANO) need to be underpinned by respected and trusted expertise in the decision-making process to avoid skewed outcomes from emotive or politically motivated influences. The Ombudsman must be able to transparently demonstrate complete objectivity, based on fact and expert input, to any process or outcome, otherwise the credibility of the office would be tenuous.

Governance arrangements for the ANO could be improved to provide greater independence, including publishing its findings and reports. This could be done by:

- Increasing its independence from government to ensure it is not subject to political interference and can operate impartially.
- Granting it the power to initiate its own investigations into noise complaints in order to proactively identify and address noise issues.
- Continuing the publication of its investigation reports. The latest published investigation report dates from August 2021. ANO should be required to publish all its findings and reports on its website to be easily accessible to the public for transparency purposes.
- Empowering the ANO to make recommendations to government decision-making. ANO already provides recommendations to NCIS, however, making recommendations to government could improve noise management policy, based on its expertise and experience and not emotive or politically motivated influences.

#### Australian Noise Exposure Forecast (ANEF)

The Australian Noise Exposure Forecast (ANEF) system has been a land-use planning tool to measure aircraft noise exposure in the vicinity of airports for almost 40 years. It is based on outdated data and methodology developed in the 1970s and does not reflect advancements in noise measurement and modeling techniques. Therefore, ANEF contours may not accurately represent the current noise impact surrounding Australian airports.

To improve ANEF, the ANEF methodology must be updated with the latest advances in noise measurement and modeling, and by using more accurate aircraft operations data. This would also involve using a variety of commonly used noise metrics to assess and manage noise pollution such as:

- sound level equivalent (LAeq) and maximum sound level (LAm<sub>ax</sub>) based on energy averages of sound levels of noise sources like in Melbourne airport, or
- Lden (Day-Evening-Night Level) and L<sub>night</sub> (night level), which take into account the total noise energy exposure over a specified period (an average sound exposure level over a 24-hour period for Lden, and an average sound exposure level over an 8-hour period, typically from 10pm to 7am for L<sub>night</sub>), or
- LAeq (the A-weighted Equivalent Continuous Sound Pressure Level), which is an average sound pressure level over a specified period, typically 24 hours.

To improve the use of ANEF in government planning processes:

- the ANEF methodology must be updated to reflect the latest advances in noise measurement and modeling,
- commonly used noise metrics must be used in ANEF contours, and
- ANEF data must be updated regularly so that ANEF contours remain accurate and reflect any changes in aircraft operations or noise mitigation measures.

#### Effective land-use planning and management and Community Engagement

For an effective land-use planning and management, there must be an effective communication in place between governments and communities, especially with potential purchasers of properties which will be affected by aircraft noise in the future. For that purpose, we believe that governments must make it mandatory for real estate agents and property developers to disclose relevant noise information to potential purchasers of properties affected by aircraft noise. As per ICAO Doc.9829 - Guidance on Balanced Approach, "when environmental regulations and issues affect development, real estate disclosure notices can be prepared. In order to be effective, these notices ideally need to describe aircraft noise in a non-technical way that is comprehensible to the prospective resident. Identification of the aviation noise impact on real estate may foster an awareness of airport/community relationships and serve notice to prospective buyers of potential disturbances due to aircraft noise. Existing property owners and realtors often oppose real estate disclosure because it may make it more difficult to sell noise-impacted property. However, disclosure may deter buyers who are the most sensitive to noise or satisfactorily inform those who still wish to purchase a noise-impacted property to the extent they do not become noise complainants or noise litigants in the future"<sup>35</sup>.

This information can be provided through:

- a noise information portal to provide comprehensive and up-to-date information about aircraft noise in the vicinity of specific properties, including for example noise maps or information on existing and planned noise mitigation measures;
- informational flyers; or
- hosting an informational meeting for potential new purchasers.

Proactive mitigation of noise impacts can be achieved by effectively informing residents and land-use planners about noise issues and incorporating noise considerations into planning processes. ICAO Doc.9829 - Guidance on the Balanced Approach provides some examples that could be implemented:

- Implement mandatory real estate noise disclosures that require real estate agents and property developers to disclose relevant noise information to potential purchasers of properties located in areas affected by aircraft noise. In order to be effective, these notices ideally need to include noise metrics data and explanations of potential noise impacts.
- Mandate noise-reducing building design through a subdivision regulation on new development, such as the requirement for a restrictive covenant that requires buildings to be designed and constructed to minimize interior sound levels derived from exterior noise sources.
- Develop noise insulation programmes to lower interior noise levels for residential structures that cannot reasonably be removed from noise-exposed areas.
- Implement building codes with minimum structural construction techniques and material standards that can increase the interior noise reduction levels of typical residential or commercial structures on noise-impacted areas. "Building codes are essentially a legal means of requiring adequate sound insulation to be incorporated in new construction"<sup>36</sup>.

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<sup>35</sup> ICAO Doc 9829 Guidance on the Balanced Approach to Aircraft Noise Management

<sup>36</sup> Ibid.



- Make a comprehensive planning that takes into account existing development and coordinates future development to be compatible with various community goals. Local governmental bodies should incorporate noise assessment and potential mitigation measures into the early stages of land-use planning, when making decisions about land development and infrastructure projects.

### The role of airports and airlines

It is important to highlight the investments that airlines have made in new technologies and operational strategies. When considering the significant advances in aircraft over the last 30 years, where the noise footprint of new aircraft is at least 15% smaller than that of the aircraft they replace, and the associated reductions in noise impacts, it is apparent that airlines and airports have taken great strides to reduce the community impact in relation to noise.

To better support management of aircraft noise, airlines and airports should continue working collaboratively with Air Navigation Service Providers (ANSPs) and airports through the sharing of data to assist with planning of flight paths and noise abatement operating procedures (NAPs) to minimize noise impact overpopulated areas, and to educate communities on the limitations of mechanics of flight to meet some mitigation proposals.

A NAP is a procedure used by aircraft at an airport to minimize the impact of noise on the communities surrounding the airport and airlines adhere to NAPs at airports where they are published. For any new considered NAP, it should be part of a joint implementation process involving all parties involved, including aircraft operators, airport operators and Community Aviation Consultation Groups, and it must demonstrate compliance with recognised and appropriate crew training, does not compromise safety and that Air Traffic Control can accommodate the procedure with minimal or no impact to airport capacity or controller workload. It is also important to take into account the performance characteristics of different aircraft types and how they influence flight tracks and therefore noise. IATA supports continuous descent approaches that not only reduce aircraft emissions, but also noise impacts.

When selecting a runway to deliver the least noise impact, it is crucial to strike a balance between noise reduction measures and operational efficiency. The potential increase in taxi times and fuel consumption should be carefully evaluated against the noise reduction benefits achieved by utilising the preferential runway system.

Additionally, airports could use revenue from noise-related airport charges to fund insulation programmes, and they could explore landscaping strategies to reflect noise, such as the ground ridges around Schiphol airport. They could also support the development of alternative aircraft technologies, such as electric and hybrid propulsion systems, which have the potential to significantly reduce aircraft noise.

### Flight Path Design Principles

Flight path design principles have always evolved with all facets of safety, efficiency and impact considered. Modern design tools, better aircraft capabilities, and the experience of procedure designers has seen flight path design continually improved. Detailed procedure testing in air traffic control and flight simulators is an effective way to evaluate expected noise and CO<sub>2</sub> outcomes.

UK Department for Transport document *Air Navigation Guidance 2017* sections 3.2 and 3.3 Altitude Based Priorities provide a framework where "To assist the CAA and sponsors, the government laid out the altitude-based priorities which should be taken into account when considering the potential environmental impact of airspace changes." It describes how the proponents of a change should prioritise the reduction of aircraft CO<sub>2</sub> emissions and the minimising of noise depending on the altitudes flown.

With respect to designs for noise considerations, the following can be considered for safety and CO<sub>2</sub> outcomes:

- Avoid designing customized configurations or non-standard procedures that are not safely flyable (eg: unrealistic climb/descent gradients, operations with excessive tailwind components, low level turns);
- Minimize additional track miles to save CO<sub>2</sub> emissions;
- Seek to offset additional track miles with efficiency improvements on routes once they are away from the noise sensitive areas;
- Avoid inefficiencies in profile designs (e.g.: level-outs); and
- Include all aircraft types in the design.



## 6.2 Community Consultation Mechanisms

- *How can the existing consultation framework be improved to facilitate efficient planning and development, while preventing environmental harm and ensuring continued access for aviation users?*
- *Are Community Aviation Consultation Groups (CACG) working for the community? What are good aspects, and what can be improved?*

### Key Recommendations

1. Facilitate an integrated approach to airport consultation by appropriately identifying the different groups of stakeholders e.g. community vs Users and customizing the approach to deliver the required outcomes.
2. Formalise an inclusive governance framework in the decision-making process i.e. with participation from designated/nominated committee members with clear accountability and structure. Adopt the global best practice Airport Consultative Committee (ACC).
3. Ensure that all CACG participants have relevant requisite knowledge in the topic and related proposed solutions, to facilitate holistic, educated discussions supporting balanced and efficient outcomes.

IATA appreciates and understands the complexities that arise from the breadth of stakeholder groups that need to be consulted. This is due, in part, to the varying priorities, perspectives and knowledge levels on certain matters; all of which need to be taken into account during the decision-making process and are necessary and important in their own right. Consultation must cater to these variations and depth of knowledge and information to allow informed feedback from various groups to create a holistic picture for how airports can move forward and develop close and respectful ties with their stakeholders.

The public consultation process is one of the many necessary paths to capture the required inputs. For the purpose of this consultation, it is important to differentiate between Community vs Users consultation as each would need to be designed differently to cater to the audience/interest groups. We expect that the public community consultations be held once the overall development plans and options have been consulted and adjusted where necessary, and more importantly received the support of airport users (e.g. aircraft operators). IATA's recommendations below focus on what we would consider best practice Users consultation, although some of the principles could similarly be applied to community consultations.

### Airport Users Consultation – Global Best Practice Airport Consultative Committee (ACC)

Underpinning an effective airport planning and development consultation framework is the need for a business case approach, transparency, and facilitating inclusive governance in the decision-making process, both in the design and implementation of the framework. Governments have a critical role to play in providing the necessary leadership to ensure integrated decision-making at the national level, supported by an inclusive and effective governance framework.

The benefits of Airport-Airline/Users Consultation:

- **More informed decision-making:** Consolidates airline views and provides of view of operational and passenger impacts and analysis of costs and benefits.
- **Safeguards functionality:** Ensures that planned infrastructure is flexible, functional and able to adapt to changes in the industry and technology.
- **Provides a quality check:** Helps measure progress against expectations and global best practices.
- **Alignment:** Airlines/Users have a greater willingness to support investments when they have an opportunity to engage.
- **Generates new ideas:** Often sheds light on inefficiencies and produces ideas on how to improve the functionality of existing or planned infrastructure.

More guidance can be found in IATA's best practice guidance materials that the Government should consider adopting and prescribing more specifically within the current regulatory framework:

- Airport Infrastructure Investment – User Consultation<sup>37</sup>
- Airport Master Planning<sup>38</sup>
- Airport Infrastructure Business Cases<sup>39</sup>

<sup>37</sup> Airport Infrastructure Investment – User Consultation, IATA (<https://www.iata.org/contentassetAirports/d1d4d535bf1c4ba695f43e9beff8294f/airport-infrastructure-investment---user-consultation.pdf>)

<sup>38</sup> Airport Master Planning, IATA (<https://www.iata.org/contentassets/d1d4d535bf1c4ba695f43e9beff8294f/airport-master-planning.pdf>)

<sup>39</sup> Airport Infrastructure Business Cases, IATA (<https://www.iata.org/contentassets/d1d4d535bf1c4ba695f43e9beff8294f/airport-infrastructure-business-cases.pdf>)



IATA recommends that an ACC-like framework be formalised. This will enhance governance, provide a greater linkage, and help support the airport operators' engagement with the Commonwealth, state/territory and local government agencies through the Planning Coordination Forums (PCFs). IATA welcomes the opportunity to support the Government in providing more details about the ACC global best practice and steps for implementation. To date, IATA has facilitated the establishment of ACCs at a number of major airports such as London Heathrow, Bangkok Suvarnabhumi, Kuala Lumpur, Hong Kong, Shanghai Pudong, Beijing Daxing, Manchester, Paris Charles de Gaulle and Amsterdam Schiphol. Within the Asia Pacific region, IATA is currently in the process of establishing ACCs at Noida International Airport, Navi Mumbai International Airport and New Long Thanh International Airport.

### Community Aviation Consultation Groups

Community Aviation Consultation Groups (CACGs) can be an effective vehicle to demonstrate transparency in consultation for proposed changes and their known or potential impacts, such as changes to airspace and flightpaths with known or perceived noise impacts.

While IATA acknowledges the positive work to date of the various CACGs in Australia, it is important to recognise that there are also improvements that can be made to ensure the long-term viability and sustainability, not just of these groups, but also the infrastructure pertaining to these groups. Entering into a situation where communities are at an impasse with airports is not a situation any party wants to witness, and thus should be avoided.

IATA believes that improvements to CACGs can be made in the dissemination of knowledge and education on contentious topics and their proposed resolutions so that meaningful consultation can progress. This will assist in ensuring all participants fully understand the issue and the potential impacts of proposed resolutions and their likelihood of being achievable.

When developing the Terms of Reference for conducting a CACG meeting, it should be ensured that all participants can converse with the relevant requisite knowledge in the topic and related proposed solutions, to remove any distortion from emotive or political influence and facilitate more holistic, educated discussions. This would support balanced and efficient outcomes.

## 6.3 Land use planning on-site at airports

- *How could the Australian Government improve regulation to facilitate efficient planning and development while preventing environmental harm and protecting airports for aviation use?*
- *Is a monetary threshold still an appropriate mechanism for determining a 'major airport development' requiring an Major Development Plan (MDP)? What other significance tests could the Australian Government consider?*
- *Do current master planning processes adequately account for climate risks and if not, how could they be improved?*
- *Do the current master planning processes support all airport users, including general aviation?*

### Key Recommendations

1. Establish a structured and ongoing consultation framework to review and support airport land use planning decisions in an integrated and inclusive manner i.e. the ACC best practice framework.
2. Reinforce existing regulations with the key practices highlighted in IATA's Airport Environmental Sustainability Best Practice Paper.
3. The Government should ensure there is an efficient, expedited process to deliver infrastructure without delay through planning and to ensure (through regulation) that it is cost-efficient, with airports held to account.

### Planning and Development Regulations

Based on IATA's experience globally, airport operators typically don't consult with airport users voluntarily. Even when required to do so by regulation, most airport consultations are a box-ticking exercise and fail to deliver the intended (balanced) outcomes. For this reason, the consultation requirement and framework should be prescribed clearly by the regulating agency, enforced and assessed periodically to ensure its effectiveness. As highlighted in Section 6.2, community consultation often lacks the level of detail needed for users to provide informed feedback (even though it might be sufficient for the public). It would be prudent to expect a series of consultations that reviews options and several iterations thereof, rather than a one-off consultation with a plan produced accordingly.

IATA supports consultation on major development plans and the master plan process every five years to ensure plans are up-to-date, compatible and flexible to changes should demand dictate.

A critical issue to address in relation to planning and development regulations is the business case for investment, in particular consultation with airline user funding investments. A positive return on investment for users is critical as a prerequisite for investment. This return on investment should be recognised as part of the consultation process embedded



in regulatory frameworks. Further to this, a balanced approach that considers the overall environmental footprint beyond the construction of infrastructure. This may include the operational efficiencies achieved through optimal operations which in turn minimise the environmental impact over the longer term.

IATA has published the Airport Environmental Sustainability best practice paper<sup>40</sup> outlining the key environmental and sustainability considerations in the planning and development of airport infrastructure. As part of the broader review of this submission, we request that the Australian Government reads and considers these recommendations to reinforce existing planning requirements.

Considering the impact airport development has on the travelling public, when investment decisions are made, the Government can and should ensure there is an efficient, expedited process to deliver infrastructure without delay through planning and to ensure (through regulation) that it is cost-efficient, with airports held to account.

### **Monetary Thresholds**

A monetary-based mechanism is important as one of the key mechanisms to underpin a major airport development plan and should be retained in order to understand capital expenditure (CAPEX) costs regarding airport developments. To reiterate an obvious point, infrastructure drives airport charges and it is therefore important for users to understand investment impacts. IATA will defer its views on the MDP monetary threshold to the local airline stakeholders.

Beyond the MDP trigger, IATA expects airport operators to have in place an ongoing engagement process to review all proposed changes that will have an impact on operations and/or costs. This would reflect a healthy partisan partnership approach, necessary for the success of the airport and its users. The review should consider the overall CAPEX program on an ongoing basis, rather than one-off consultations for individual investments/projects to consider the interdependencies of the various projects. It is important to ensure that all investments are in alignment with the airport master plan. Any investments that deviate from the approved master plan should also undergo the required due process.

Airlines should have assurance that airport plans deliver the best possible solution for its users, and that such decisions are underpinned by affordable capex thresholds, through a robust design and development plan supported by user consultation. Naturally, different levels of detail and scrutiny are required based on the timing and scale of investment. For instance, longer-term master plans should be based on cost benchmarks and an order of magnitude as part of the optioneering and selection process. Ten-year capex plans should have additional layers of detail, and shorter-term plans (up to 5 years) require detailed scrutiny and consultation with users.

Regardless of a lighter touch regulation, airlines and users deserve the assurance they are receiving value from airport investments, that can only be delivered through a framework of consultation and independent scrutiny of airport plans and costs, with the goal of achieving consensus amongst all parties in advance of projects being approved. IATA recommends a framework of tests for airports in this context, including:

- Clear benefits and outcomes for airlines and consumers directly linked to investments, that are measurable and quantifiable. This should be demonstrated through a business case shared and agreed with airlines. Defining the beneficial use of assets into service / the operation held against a business case.
- Capital efficiency – scrutiny regarding cost benchmarks, procurement and contracting strategies, the management of risk and contingency allowances. Third-party independent expert scrutiny of costs is important in this respect.
- Operating costs associated with investments. This is an overlooked area that airports typically ignore, as they are rarely incentivised to be efficient. Where capex is warranted and investments made, efficiencies should be generated and operational expenditure (opex) reduced e.g. driven by automation, reflected in opex or unit cost reduction
- Where airports do not deliver benefits to the defined Business Case, to the agreed program, or to the quality required then they should be held firmly to account, and rebates or penalties paid to users.
- Minimising operational disruption and maintaining levels of service and existing capacity throughout any redevelopment or capacity-enhancing plans is important and determined in consultation with airlines.

### **Environmental Impacts**

IATA advocates for an integrated master planning process that encapsulates key planning considerations such as climate risks and impacts on the environment. Most master plans do focus on resilience. However, it is fair to conclude that far more emphasis is required on climate resilience, with the idea that this will mitigate issues that may impact critical airport infrastructure operations.

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<sup>40</sup> Airport Environmental Sustainability, IATA (<https://www.iata.org/contentassets/d1d4d535bf1c4ba695f43e9beff8294f/airport-environmental-sustainability-policy.pdf>)



We support the current obligation on airports to review their masterplans on a regular basis and reinforce in industry best practice guidelines the need to do so at least once every five years. Within this context, we support the need for a greater emphasis on climate resilience through an obligation to provide robust plans at the master planning phase. This could include an enhanced requirement to form mitigation plans and review hypothetical “what if” scenarios and probabilities, that may in turn require infrastructure solutions.



## Chapter 7 – General Aviation

No comments for this section.

## Chapter 8 - Fit-for-purpose agencies and regulations

### 8.1 Role of Government and Agencies

- *Do you have concerns with current arrangements of roles and responsibilities within the Australian Government? Are there opportunities to improve these arrangements?*

#### Key Recommendations

1. The Australian Government should commence work towards according the ACCC the necessary regulatory instruments to deliver its mandate in an independent manner.
2. Implement an integrated approach in airport development and planning, such as alignment in federal/state/local requirements and approvals to streamline the decision-making process.

The ACCC has demonstrated repeatedly the pressing need for changes to current Government arrangements due to its ineffectiveness in curtailing the exercise of market power by the regulated airports. The effort to improve the existing framework based on the recommendations of the Productivity Commission is a step in the right direction but is not adequate in closing existing regulatory gaps. IATA recommends that the Australian Government commence work towards providing the ACCC with the necessary instruments to regulate effectively – in the best interest of consumers and the traveling public.

Overall, there are opportunities to improve the existing structure and approach. One particular area is the need for an integrated approach in airport development and planning e.g. alignment in federal/state/local requirements and approvals. Secondly, on the back of IATA's earlier comments on consultations and engagements with the community and airport users, a governance framework that facilitates an inclusive decision-making process including escalation protocol, should be mapped out clearly, clarified, monitored, and enforced.

### 8.2 Safety Regulation

- *Do you have any suggestions to improve current reform processes?*

#### Key Recommendations

1. IATA supports CASA plans to implement risk-based and outcomes-focused regulations.
2. Data sharing programs are a proactive way to improve safety, such as the Aviation Safety Information Sharing System (ASIAS) by the United States Commercial Aviation Safety Team (CAST), which enables access to data from commercial air carriers and general aviation operators.

CASA's approach to implement risk-based and outcome-focused regulations wherever possible is aligned with IATA's safety strategy. IATA's three pillar Safety Strategy takes a holistic approach and promotes continuous improvement through safety leadership; identifying risks and working with industry to mitigate them; and active industry engagement to bring knowledge, skills and experience together. CASA's plans for risk-based oversight also aligns with ICAO standards through Annex 19.

Effective data sharing programs are a proactive way to improve safety. Access to relevant operational data can be challenging though, particularly in terms of addressing concerns around data security and data usage parameters. The United States Commercial Aviation Safety Team (CAST) offers one approach to collaborative data sharing.

CAST was established in 1998 with two goals: to reduce the U.S. commercial aviation fatal accident rate by 80% over a 10-year period ending in 2007 and to work with airlines and international aviation organizations to reduce the worldwide commercial aviation fatal accident rate. The work of CAST, along with new aircraft, regulations, and other activities, reduced the fatality risk for commercial aviation in the United States by 83% from 1998 to 2008.

CAST has evolved, and the group is moving beyond the historic approach of examining past accident data towards a more proactive approach focusing on detecting risk and implementing mitigation strategies before accidents or serious incidents occur. It aims to transition to prognostic safety analysis, and to reduce U.S. commercial fatality risk by a further 50% from 2010 to 2025.

CAST established the Aviation Safety Information and Sharing System (ASIAS) to tie together safety databases across the industry. ASIAS is integrated into the CAST process and enables access to data from air carriers representing over 80% of U.S. commercial operations. It contains flight data from 45 commercial air carriers and 85 general aviation operators in the US and Canada.

## 8.3 Airspace Regulation and Management

- *What should the Australian Government consider in adopting technology to fully utilise airspace and ensure access for different parts of the sector?*

### Key Recommendations

1. Provided there is a positive business case, ADS-B should replace radar, or be used in non-radar airspace to improve air traffic service (ATS) surveillance.
2. IATA supports Ground Based Augmentation System (GBAS) with geometric vertical guidance as a viable candidate to supplement an instrument landing system (ILS) for Precision Approach operations. GBAS infrastructure and GBAS Landing System procedures should be implemented as appropriate based on a positive business case and consultation with airlines.
3. IATA supports the implementation of ICAO Performance Based Navigation (PBN) in all phases of flight, and supports the deployments of Approaches with Vertical Guidance (APV) based on Required Navigation Performance (RNP) approach procedures with Baro-VNAV.

The Australian Government should consider the following in adopting technology to fully utilise airspace and ensure access for different parts of the sector.

### Environment

Whilst safety remains the utmost priority for airspace regulation and management, consideration of environmental impacts is also critical. IATA members are committed to net-zero CO<sub>2</sub> emissions by 2050 in line with many countries. New technologies should be exploited to best achieve new concepts of trajectory-based operations (TBO) that provide the most beneficial environmental outcomes without compromising safety.

PBN, User Preferred Routes, Constant Descent/Climb Operations (CDO and CCO), Free Route Airspace (FRA), and access to preferred flight levels by application of reduced Performance Based Communication and Surveillance (PBCS)-enabled separation standards are all examples of utilising new technologies for best safety and environmentally friendly outcomes.

There must also be consideration of the negative CO<sub>2</sub> emissions outcomes of continuous extensions of civil air-routes to mitigate noise issues or accommodate expanding airspace volumes for defense operations (refer to Shared Use Airspace (SUA) below). New technologies enable more options to better balance airspace assignment and usage.

### Automatic Dependent Surveillance-Broadcast

ADS-B is now a widely deployed surveillance technology capable of replacing radar. Space-based ADS-B is a technology where ADS-B receivers are placed on satellites. If the satellites provide global coverage, then ADS-B surveillance can be provided globally. However, additional work, including developing complementary separation standards and communication infrastructure, is still needed to fully realize the potential benefits of Space-based ADS-B.

IATA supports the implementation of ADS-B OUT based on Mode S Extended Squitter (1090ES) data link. ADS-B should not be implemented as a redundant surveillance capability. Provided there is a positive business case, it should replace radar, or be used in non-radar airspace to improve ATS surveillance. Transition timelines need to be determined in consultation with airspace users.

Mandating ADS-B OUT avionics equipment should be considered only for the airspace where ADS-B is planned to eventually be the only surveillance capability. Once ADS-B ground stations become operational, ANSPs should, in consultation with airlines and other airspace users, publicly and transparently establish a timeline to decommission other surveillance infrastructure.

Performance requirements for ADS-B OUT should be based purely on corresponding ATM safety and separation requirements of the airspace and be consistent with ICAO Circular 326. Requiring unnecessarily high levels of system performance, including accuracy, integrity and system latency, without appropriate safety rationales cannot be supported.

Additionally, IATA supports Space Based ADS-B (SB ADS-B), with the condition that ICAO develops associated technical and separation standards that result in cost-effective safety and operational benefit. Any new Concepts of Operation should be founded on measurable benefits.

### Augmentation Systems

GBAS is a mature and evolving augmentation system that enables Global Navigation Satellite System (GNSS) for precision approaches with geometric vertical guidance. Additionally, GBAS supports additional operational flexibility through provision of displaced thresholds and multiple glide path approaches. A GBAS, unlike an ILS, can provide precision approach capability to multiple runway-ends at an airport. Many jurisdictions globally now report GBAS-related activities.



IATA supports GBAS with geometric vertical guidance as a viable candidate to supplement ILS for Precision Approach operations. GBAS infrastructure and GBAS Landing System procedures should be implemented as appropriate based on a positive business case and consultation with airlines.

Airlines who are equipping their aircraft with Satellite Based Augmentation System (SBAS) technology are doing so based upon their individual operational requirements and business case.

IATA member airlines who are not planning to utilise SBAS are concerned that they may be adversely impacted by its implementation. Three essential requirements for SBAS implementation are:

1. no mandatory requirements by regulatory authorities to fit SBAS equipment to aircraft;
2. no unjustified restrictions to operations due to a lack of SBAS equipment; and
3. no costs related to SBAS being imposed directly or indirectly to airspace users who do not use such technology.

### **Performance Based Navigation and Communications and Surveillance**

The use of Performance Based Navigation (PBN) avoids the need to purchase and deploy navigation aids for each new route or instrument flight procedure, allowing for the design of routes and procedures that are not limited by ground-based infrastructure, and facilitating the operational approval process for operators by providing a limited set of navigation specifications intended for global use.

The safety benefits of PBN are significant, as even airports located in the most remote areas of the world can have runway-aligned approaches with horizontal and vertical guidance to any runway end without having to install, calibrate and maintain expensive ground-based navigation aids.

As a matter of high priority, IATA supports the implementation of ICAO PBN in all phases of flight, and supports the deployments of APV based on RNP Approach procedures with Baro-VNAV. These procedures should include LNAV/VNAV minima and should not rely on ground-based conventional navigation systems.

IATA does not support mandating specific PBN navigation specifications without corresponding operational benefits. Requirements for PBN navigation specifications should be based on agreed operational and safety improvements, short- and long-term planning and projection of fleet equipage. While aiming for regional and global harmonisation, ANSPs and regulators should work closely with airlines and other airspace users to determine an appropriate navigation specification for specific airspace based on targeted ATM operations, airspace concept and separation standards to be applied. In summary, IATA support enhancements to PBN but still see the use of GNSS as the primary navigation infrastructure to support current and future applications.

ICAO's doc 9869, Performance-based Communication and Surveillance (PBCS) Manual states "the PBCS concept provides objective operational criteria to evaluate different and emerging communication and surveillance technologies, intended for evolving ATM operations. Once these criteria have been established and accepted, implementation of a specific ATM operation including its technical and human performance may be evaluated against these operational criteria to assess their viability." In non-surveilled areas, the application of PBCS separation standards between capable aircraft can increase access and efficiency.

### **New Entrants**

The flying public increasingly expects environmentally friendly, digital and personalised travel options. Airlines are investing in new aircraft technologies including electrical vertical take-off and landing (eVTOL), electric short take-off and landing (eSTOL), supersonic, commercial space vehicles, and single/remotely piloted aerial systems.

Airspace is a finite resource and in order to ensure safety and equitable access for all airspace users, new entrants should be integrated in a safe manner without negatively impacting the incumbent aviation operators. This may result in a need to re-visit some of the underlying assumptions governing how traffic is managed and assessment of the requirements for access to segregated airspace.

Future aircraft capabilities will enable sharing of information such as intent and location of surrounding traffic and constraints, so that operations can be planned safely. Digital and cloud-based applications and implementation of standardised communication protocols will enable sharing of safety and flight critical information amongst all ATM stakeholders. Digital situational awareness will provide airspace users and ANSPs operators new tools to effectively integrate and manage these expanding operations.

IATA supports the safe and efficient integration of new entrants into airspace without creating safety, operational or financial burden to present airspace users. Any initial and ongoing costs for adaptations and management of new airspace users in the NAS should be met by those specific airspace users.

Several aspects need to be considered when integrating new entrants into airspace:



1. Future airspace constructs should consider the conditions for integrated operations of unmanned and manned aircraft as well as their specificities when defining the services available and the requirements to be applied.
2. Incremental implementation, and parallel operations will be needed until a state of convergence between management of legacy airspace users and new entrants can be achieved.
3. Upskilling and reskilling of operational staff, especially within ANSPs, may be required.
4. The critical path towards the end state of higher automation will be the regulatory framework; how will such future traffic management system be certificated and how will safety management and safety oversight be exercised?
5. Future operations should be demand and performance based with a performance baseline agreed for new entrants to assure safety and efficiency are maintained.

### Flexible Use of Airspace / Shared Use Airspace

Lastly, the Australian Government should consider Flexible Use of Airspace (FUA) and Shared Use Airspace (SUA) when looking at the full utilisation of airspace.

Flexible use of airspace (FUA) is an airspace management concept based on the principle that airspace should not be designated as purely civil or military, but rather as a continuum in which all user requirements are accommodated to the greatest possible extent. Flexibly sharing airspace amongst civil and military users is a significant paradigm shift. While it is certainly important to consider the national security needs, civil air transport's role in global economies should also be considered.

Airservices' OneSKY program is designed to deliver Shared Use Airspace (SUA) through the implementation of common ATM systems for both civil and defence ATC in Australia. SUA is enabled by new technologies and methods for airspace volume and information sharing. It is the enabler for a more efficient and predictable use of the airspace with the military, where full interoperability between civil and military systems is implemented and supported by effective communication and cooperation processes.

## 8.4 Agency Funding and Cost Recovery Approaches

- *What should the Australian Government consider when determining cost recovery arrangements to ensure a safe, equitable and accessible aviation system?*

### Key Recommendations

1. Any new or increase in taxation should be consulted with the industry in advance and allocation of funds should be transparent to the industry.
2. Australia should consult ICAO Doc 9082 (ICAO's Policies on Charges for Airports and Air Navigation Services) when setting charges for air navigation services.
3. The current long term pricing agreement (LTPA) process followed by Airservices Australia is robust and facilitates transparent consultation with users.

It is important to note that passenger numbers for Australia have yet to recovery to pre-COVID levels, and any increase in taxation to the industry will delay the recovery even further. IATA strongly recommends that any new or increase in taxation should be consulted with the industry in advance, and the allocation of funds collected should be transparent to the industry.

Air navigation charges play a significant role in terms of funding infrastructure and services for a safe aviation ecosystem. IATA believes that it is incumbent upon States to utilise the relevant ICAO guidance material when setting charges for air navigation services, particularly ICAO Doc 9082 (ICAO's Policies on Charges for Airports and Air Navigation Services). Doc 9082 encourages States to incorporate four key charging principles, namely non-discrimination, cost-relatedness, transparency and consultation with users into their national legislation, regulation or policies, in order to ensure compliance by ANSPs.

Adequate consultation and transparency support a collaborative approach to change and growth; something acknowledged as a critical success factor in today's complex aviation environment. IATA believes that engagement with airspace users in accordance with the referenced ICAO guidance is also an opportunity for a thorough examination of the relevant entity's service provision, cost base, infrastructure (current and future), and service performance.

Regarding the setting of air navigation service charges within Australia, the current long term pricing agreement (LTPA) process followed by Airservices Australia is considered one of the best in the region. Airspace users may not necessarily agree with the content of the proposal made under the LTPA framework, however, the process itself is robust and facilitates transparent consultation with users.

## 8.5 “All Hazards” Regulatory Approach

- *Do you support the Australian Government introducing enhanced security obligations?*

### Key Recommendations

1. IATA supports an “All-Hazards Approach” to safety and security to ensure ever evolving threats and risks are managed within acceptable levels.
2. Aircraft operators and the industry should be permitted to evolve continued security and airworthiness controls based on Integrated Risk Management (IRM) models.

Public and industry concern over the threats, vulnerabilities and risks associated with civil aviation operations continue to escalate, especially in light of the ever-evolving – and often times – volatile geopolitical landscape. Such concerns remain a priority given that civil aviation remains an attractive target for various state and non-state entities in forwarding their objectives and interests. Coupled with the increasing willingness by such entities in incorporating technological innovations in asymmetric, non-conventional methodologies to target civil aviation and civil aviation systems, including civil aircraft - as noted in Paragraph 2.5 of the ICAO High-Level Conference on Aviation Security <sup>41</sup> (*HLCAS/2-WP/6 “Update on Aviation Security Threat and Risk”*) - the industry is increasingly exposed to a wide range of antagonistic threat capabilities ranging from potentially catastrophic threat methodologies such as downing of civil aircraft through improvised explosive devices, acts of sabotage, and hijacks, to new non-conventional acts designed to severely disrupt the continuity of civil aviation operations such as cybersecurity attacks aimed at the aviation system.

With the increasing demand for enhanced connectivity changing the way in which aircraft are serviced and operated, connected aircraft now forms part of the Internet of Things (IoT) attack surface. Additionally, due to the interconnectedness and complexity of aircraft systems, an immediate loss of certified aircraft airworthiness is highly likely in the event of an intentional act of sabotage or unintentional compromise of aircraft safety critical systems. As such, the paradigm of safety management systems are inadequate in an of themselves in managing and mitigating such risks given that such systems have hitherto not taken into account active threats arising from intentional interference in the way that security management systems have done.

Moving forwards an integrated risk management approach (or “All-Hazards Approach”) to safety and security, which incorporates a pro-active assessment of hazards, vulnerabilities and threats is required to ensure ever evolving conventional and asymmetric security threats and risks are managed within acceptable levels.

As such, IATA continues to call on States to embrace and support risk-based, outcome-focused regulations and approaches rather than implementing overly prescriptive – and potentially less flexible and adaptive – regulations in order to manage the fast-moving and evolving threat and risk conditions in the civil aviation system. Rather, aircraft operators and the industry should be permitted to evolve continued security and airworthiness controls based on Integrated Risk Management (IRM) models. This will best be done by taking advantage of existing recognised methodologies in Security Management Systems (SeMS), Safety Management Systems (SMS) and the Information Security Management Systems (ISMS).

## 8.6 Security Screening

- *Do you have any comments about current security screening arrangements?*

### Key Recommendations

1. The seating capacity of 40 or more persons definition in the Aviation Transport Security Regulations 2005, regulation 4.02, should be removed for passenger screening to occur across all regular public transport and open charter flights, where screening already takes place at an airport.
2. The Australian Government and airport operators should consider new technologies and / or upgrade security screening systems to improve the processing time i.e. shorter queuing time.
3. The four key ICAO charging principles of non-discrimination, cost-relatedness, transparency, and consultation should be observed when security charges are designed and implemented.

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<sup>41</sup> ICAO, High-Level Conference on Aviation Security (HLCAS/2)-WP/6, Update on Aviation Security Threat and Risk, 2018



IATA supports a dynamic, risk-based, outcomes-focused approach to security that takes into account variables such as risk-appetites, localize security settings, and varying operational practices. Such a risk-based security-outcome focused program is better suited to meet the evolving security environment rather than a generalised static restrictions and rule-based measures. That said, within the context of the established risk or threat environment, commensurate security screening and mitigating security measures should be applied consistently based on the assessed threat and risk evaluation.

The seating capacity of 40 or more persons definition in the Aviation Transport Security Regulations 2005, regulation 4.02, should be removed for passenger screening to occur across all regular public transport and open charter flights, where screening already takes place at an airport. These changes would result in a consistent application of security screening measures across the Australian aviation ecosystem and allow for a basis of comparison with the security standards of other regulators that may facilitate the opportunities for mutual recognition and equivalency of security standards.

While IATA recognises that it has been a longstanding policy that industry is responsible for the cost of security screening, including operating costs such as employment and training of screening officers, the government should ensure that such charges are limited to recovering the cost of those immediate airport security services in line with ICAO policies where the following are considered security charges within scope for charge recovery: the screening of passengers and baggage, security controls over cargo and airport areas and airline personnel, the monitoring of restricted areas, and security training.

Using the example of applying the same security screening standards across all regular public or charter flights, the consistent application of security screening measures within the system would also result in a more transparent and fair allocation of costs and ensure that more operators are contributing towards the security of the system.

IATA would like to reiterate that where security costs are incurred by an airport, that the four key ICAO charging principles of non-discrimination, cost-relatedness, transparency and consultation with the airlines should be observed when these security charges are designed and implemented, with security charges directly related to the costs of the airport security screening services and split between all users on an equitable cost-related basis, including a fair share for the airport itself.

Lastly, harmonisation must exist between security and facilitation to reduce unnecessary burden on passengers without compromising security outcomes. The Australian Government and airport operators should consider new technologies and/or upgrade security screening systems to improve the processing time i.e., shorter queuing time. As an example, Singapore Changi Airport introduced a pilot programme with Singapore Airlines in 2022 for passengers to schedule their security screening times with the objective of reducing queue wait times.

## 8.7 Passenger Facilitation

- *Are there any specific initiatives that should be supported globally, regionally, and nationally to continue improvement in international passenger facilitation?*
- *How can Government optimise partnerships with industry to streamline the movement of passengers and modernise the border, while also enhancing security?*

### Key Recommendations

1. The Government, along with industry, should consider One ID standards to transform the end-to-end passenger process using digital identity and biometric technologies.
2. IATA supports focus on creating a seamless trans-Tasman border. The introduction of digital passenger arrival cards in Australia could be a first step to assist in the sharing of information.
3. The Government can lead and partner with industry by establishing a common vision and roadmap, pursuing the development and adoption of standards and recommended practices, and establishing trust frameworks between industry stakeholders.
4. The two key focus areas for government/industry partnerships should be on privacy and interoperability.

The demand for air travel is projected to grow by 3.3% annually, with global passenger traffic expecting to double by 2041 from approximately 4bn passengers in 2019 to approximately 8bn in 2041<sup>42</sup>. This poses a challenge for the industry, as building more and bigger airports is not viable. To cater to this growth, the industry needs to adopt new technologies that can automate, digitalize, and optimise processes to handle the increasing traffic and to improve security outcomes.

Passengers' acceptance of biometric technology has grown over the years. In the last 12 months, 46% of passengers used biometrics at the airport, up from 34% in 2022<sup>43</sup>. Passengers prioritize speed and convenience and are increasingly

<sup>42</sup> Source: Tourism Economics/ IATA Sustainability and Economics

<sup>43</sup> Source: IATA Global Passenger Survey 2023



embracing biometrics and off-airport processes to move through the airport faster. IATA's Global Passenger Survey 2023 revealed that 75% of passengers prefer using biometric data over traditional passports and boarding passes for a more convenient travel experience. Cooperation across the value chain and with Governments will be needed to deliver the results that passengers expect.

### One ID

IATA's One ID initiative aims to transform the end-to-end passenger processing using standards for digital identity and biometrics technologies to provide a contactless, secure, seamless, and efficient customer experience through the airport.

The main benefits of One ID are listed below, related to the stakeholders who will benefit the most.

#### Passengers

One ID eliminates the need for multiple documents, allowing passengers to share minimal necessary data from their digital identity with airlines, airports, and governments before departure. This ensures they arrive at the airport ready to fly. The use of biometric recognition at airport touchpoints means no repetitive document checks, leading to fewer queues and more relaxation time at the airport.

#### Airlines/Airports

One ID aims to boost staff productivity by minimizing manual ID and travel document checks. This allows airlines and airports to concentrate on providing value-added services to the travelling public. The use of digital identity enhances passenger data quality, reducing penalties from incorrect data input in advance passenger information processing. Shorter processing times can decrease airport queues, optimising airport space efficiency and prevent operational delays. For example, biometric boarding can board 400 people in 20 minutes, which is half the normal time. A trial at Istanbul Airport also showed a 30% reduction in boarding times using biometrics<sup>44</sup>. Both airlines and airports stand to gain from the improved passenger process, leading to satisfied customers.

#### Governments

One ID will strengthen border, security and improve facilitation by enabling governments to receive accurate passenger information, including passenger biometrics in advance and to use it for pre-screening. It will help reduce inadmissible passengers with improper documentation. It will also further help combat human trafficking and other cross-border criminal activities by reducing the possibility for individuals to cross borders under a false identity.

The focus areas of One ID are:

- Digitalisation of Admissibility – passengers can demonstrate to airlines that they have met the travel requirements remotely/ off-airport and in advance of their travel so that they arrive at the airport "Ready to Fly".
- Contactless Travel – passengers can experience a contactless journey with biometric-enabled identification through the various non-regulatory and regulatory touchpoints at the airport.

The six key principles of One ID are:

1. a paperless process;
2. passengers own and control their data (privacy);
3. verifying parties should request only the minimum data required to complete the transaction (selective disclosure);
4. biometric recognition systems should allow passengers to be recognised throughout the process;
5. passengers can opt in to share in advance their digital identity information and/ or have a biometric-enabled end-to-end digital experience; and
6. passengers can opt out at any stage.

### Seamless Trans-Tasman Border

A specific initiative that IATA supports regionally to improve international passenger facilitation is the seamless trans-Tasman border. One ID standards can be built on to create digital identities and biometric technologies such as facial recognition to identify trans-Tasman passengers without the need to stop and present travel documents such as passports and/ or boarding passes at each touchpoint. This will reduce the time spent in queues and facilitate speedy movement of passengers through the airport terminals between Australia and Aotearoa New Zealand. Just as Aotearoa New Zealand have implemented the digital New Zealand Travel Declaration, digital arrival cards in Australia could also facilitate a new way to share biosecurity information to arriving travellers and to give better access to authorities for risk assessments.

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<sup>44</sup> 'Biometric trial at Istanbul Airport reduces boarding times by 30%', in *Future Travel Experience*. April 2021, viewed on 1 November 2023, <https://www.futuretravelexperience.com/2021/04/biometric-trial-at-istanbul-airport-reduces-boarding-times-by-30/#:~:text=Istanbul%20Airport%20has%20recently%20concluded,passenger%20processing%20at%20the%20airport.>



## Partnerships with Industry

The Australian Government is a critical stakeholder in streamlining the movement of passengers and modernising the border, as regulation sets the requirements that airlines must abide by at immigration or security. The Government can optimise partnerships through closer collaboration by establishing a common vision and roadmap, pursuing the development and adoption of standards and recommended practices, and establishing trust frameworks between industry stakeholders. The Government may also need to examine existing and potential regulatory obstacles to support the necessary legal framework to enable end-to-end biometric processes.

Two areas of key focus in optimising partnerships will be on privacy and interoperability.

- Privacy is a top priority with passenger processing standards designed to keep passengers in control of their personal data. Moreover, processes rely on the exchange of credentials (verified approvals based on data) which are shared peer-to-peer (with no intermediating party). Government should work with industry to understand detailed privacy implications and seek adequate clarifications to ensure the One ID standards can be applied across jurisdictions. Airlines, airports, and governments will need to determine what the minimum necessary data requirement is to facilitate the traveller journey while ensuring that passenger privacy and data is protected.
- Interoperability is essential for global acceptance and to ensure alignment to the ICAO standards, including those for the Digital Travel Credential and Digital Travel Authorization. Different implementation models can still co-exist, but global cooperations between governments and international bodies will be needed to promote the use of digital travel credentials. The W3C Verifiable Credentials Data Model should be supported, which creates a trust framework that allows for global interoperability and possibilities for the traveller to reuse credential/wallets for general purpose (everyday life). The IATA interoperability roadmap that is being developed by key stakeholders, including government will be key to helping achieve the One ID end-state.

## Case Study: End to End Digital Identity Proof of Concept

In October 2023, IATA with industry partners successfully tested the first fully integrated digital identity travel experience, from shopping for flights to arrival, on a journey from London Heathrow (LHR) to Rome Fiumicino (FCO) with British Airways. The organisations involved in the project included Accenture, Amadeus, Australian Border Force, AWS, Branchspace, British Airways, IDnow, Aeroporti di Roma, SICPA, Trip.com, and Verchaska.

The journey illustrated the potential of a future fully integrated digital travel experience leveraging biometrics with:

- **Personalized Offers:** This was seen from the shopping experience where travelers were able to receive personalized offers through all shopping channels. The LHR-FCO passenger shared their loyalty card data (stored as a verifiable credential in their smart phone's digital wallet) with a travel agent. This enabled airlines using the New Distribution Capability (NDC)<sup>45</sup> to make personalized offers through the travel agent channel.
- **Simplified Orders:** Once the traveler had chosen offers, an order was generated as a verifiable credential that was stored in a digital wallet. This means that Passenger Name Records (PNR), e-tickets or electronic miscellaneous documents were not needed. All the information about the journey was stored in the verifiable credential, which can also be read as a QR code.
- **Effortless Travel Requirements Check:** Many processes can be done long before the traveller gets to the airport. Along with the digital wallet, a digital passport (stored in the traveler's digital wallet) will be a key enabler. By sharing the nationality data of the digital passport, passengers confirmed their travel document requirements. IATA's Timatic<sup>46</sup> solution supported this.
- **"Ready to Fly" – Simplifying and Securing Check-ins:** The LHR-FCO traveler also chose to share their digital passport and order data with their airline, British Airways, to receive a confirmation that they are Ready-to-Fly and received seat assignment via text message, being spared from manual data input. Traditional boarding passes may become optional if travelers are offered and accept a contactless experience at the airport.
- **Contactless Airport Experiences:** For travelers who choose to share their biometric data, storing their phone and proceeding hands-free (with their phone and passport in their pocket or purse) through the airport was possible. Biometric gates cleared the way for the LHR-FCO traveler through security, into lounges and onto the aircraft.

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<sup>45</sup> IATA, 'Distribution with Offers & Orders (New Distribution Capability – NDC)', 2023, viewed 27 November 2023, <https://www.iata.org/en/programs/airline-distribution/retailing/ndc/>

<sup>46</sup> IATA, 'Timatic Solutions' 2023, viewed 27 November 2023, [https://www.iata.org/en/services/compliance/timatic/?utm\\_source=google&utm\\_medium=cpc&utm\\_campaign=timatic-awareness&utm\\_content=landing-page&gad=1&gclid=EAlaIqOBChMl-d\\_WxNb8gQMV207jBx0rsQSxEAYASAAEgLxq\\_D\\_BwE](https://www.iata.org/en/services/compliance/timatic/?utm_source=google&utm_medium=cpc&utm_campaign=timatic-awareness&utm_content=landing-page&gad=1&gclid=EAlaIqOBChMl-d_WxNb8gQMV207jBx0rsQSxEAYASAAEgLxq_D_BwE)

## Global Initiatives with Digital Travel Credentials

There are various industry developments on digital travel credentials (DTC). ICAO is working to standardise the issuance of travel credentials in a digital format, which would mean a conventional passport could be validated using the travel document issuing authority's public key infrastructure. Part of this work includes a visible digital seal, which is a 2D barcode that is digitally signed, and a data structure barcode to enable all travel documents to be held on a smartphone. The European Union (EU) are also developing standards and recommendations for European digital identity, which can be used for both online and offline public and private services across the EU. The EU are undertaking several large-scale pilots to test the proposed digital identity framework, and through the Department for Migration and Home Affairs (DG HOME), are piloting the use of the ICAO DTC from Canada to the Netherlands, and from Finland to Croatia. In the U.S, the Transport Security Administration is in the process of upgrading credential authentication technology. Furthermore, Bhutan recently passed the National Digital Identity Act on 24 July 2023 that includes cross-border recognition of digital credentials and data identity from other countries.

## Global Initiatives with Biometrics

There are several global initiatives occurring that are allowing for a seamless travel experience using biometrics. The U.S Customs and Border Protection have been building on existing traveller biometrics to enable efficient travel through check-in, baggage, boarding and security check points of an airport. When the traveller presents themselves at departures or arrivals, they verify their face through a camera that is connected to a cloud-based facial matching service, matching historical photo templates from a gallery associated with that flight manifest. There are 238 airports currently using the Biometric Facial Comparison Technology<sup>47</sup>. Similarly, Hong Kong International Airport is leading an initiative called "Flight Token" that uses facial recognition to reduce repetitive document check and process times. The passenger enrolls in flight token through the Smart Check-in Kiosk. The token is then validated at the e-Security gate, which has reduced the security check in process from 3 minutes to 10 seconds<sup>48</sup>. After passing through security, passengers can continue their journey through immigration and e-boarding gates using the facial recognition system. IATA encourages the Australian Government to explore and test such capabilities as well as support industry in trying out these technologies.

In summary, automation, digitization, and efficient processes will assist in handling passenger growth. IATA is working with industry to provide the right tools (standards and recommendations). Government can play a part in enabling the environment (infrastructure and regulations), to be compatible with the IATA One ID concept. Specific steps the Australian Government can take include changing applicable regulation to allow biometric recognition, while working with industry to ensure privacy is maintained. To ensure interoperability, the Government can partner with other governments and international bodies to develop legal framework for the use of digital identity. A specific area of focus for the region should be the seamless trans-Tasman border and digitizing the Incoming Passenger Card in Australia.

## 8.8 Air Cargo Facilitation

- *In the air cargo environment, how could industry and Government better work together to leverage advances in technology as well as industry investments in infrastructure and technology to streamline movement of cargo?*

### Key Recommendations

1. Industry encourages the adoption of ONE Record as the primary messaging standard for the air cargo community by 2026.
2. The Government should leverage advances in technology to share safety data, which would allow for better mitigation measures to be developed against lithium battery incidents.

Industry and government can collaborate to improve the efficiency and safety of air cargo through digitisation of processes, as well as through data sharing and harmonised screening standards.

The digital air cargo environment today is fragmented, siloed with a mix of old and new systems and technologies. It might seem a paradox that air transport, which is supposed to be the fastest way to ship goods, is slowed down by manual processes and legacy ways of sharing information. According to IATA, each air cargo shipment accounts for 30 pieces of paper on average as it makes its way from shipper to consignee, via the freight forwarder, trucking company, terminal operator, airline, ground handler and customs authorities.

Air cargo transport is a complex industry. There is still a lot of paper and manual handling, both of which limit transparency and visibility of shipment and create error-prone environment. Companies have their own software, applications, databases,

<sup>47</sup> Customs & Border Protection 'Airports CBP Biometrics', 2023, viewed 27 November 2023, <https://www.cbp.gov/travel/biometrics/airports>

<sup>48</sup> Hong Kong International Airport, 'Flight Token', August 2023



spreadsheets, and other documents that contain business data. Much of this data is logically connected as it relates to the same business components, but is physically disconnected, which prevents search engines, databases, and content management systems from linking up the separate pieces of data. It is a fact that data is an asset to any business. With continued globalization, the amount of data and its geographic distribution has reached a scale that has never been seen before in the software industry. Therefore, the success of a business relies heavily on its capacity to store, share, manipulate and report on that data.

### ONE Record

IATA sees digitalisation as one of the most critical priorities to achieve efficiency and prosperity for the air cargo community<sup>49</sup>. To support the industry digital transformation in adopting new innovations more easily, IATA introduces ONE Record, the next-generation data-sharing standard. The key benefits of ONE Record are to provide transparency and visibility to the entire supply chain and facilitate direct connectivity between all the industry stakeholders using the web Application Programming Interface (API), which will lead to new cooperative IT solutions and innovation.

Multiple message exchange standards add operational complexity and cost. ONE Record has the potential to become the ONE message exchange standard for air, sea and road transport and is currently being tested in the European Union. IATA has been encouraging industry to adopt ONE Record standards by 2026 and recommends that the Australian Government adopt ONE Record as the primary messaging standard for the air cargo community.

ONE Record uses the existing possibilities of the internet and guarantees fast and uncomplicated access to the data via Uniform Resource Identifiers (URIs). Beyond the technical aspects, this approach changes the way we handle air cargo data. Instead of focusing on transferring data from one company to another, the focus will shift to what we can do with that data.

Digitalisation is a crucial transformation for bringing transparency and efficiency in current processes, and for reducing potential errors and delays, leading to overall improved customer service. Technologies like APIs and ontologies that enable next-level data exchange and allow to connect to different partners from the entire supply chain, using real-time data, are examples of tools that can bring air cargo to the new digital era. Digitalisation opens the way to new technologies like IoT (Internet of Things) and AI, which will ultimately lead to better customer experience, shipment control, improved processes, and opportunities for innovation, enabling the creation of new value-added services for the customers.

IATA has already been engaging with airlines, governments as well as the freight industry in Australia on ONE Record and welcomes further engagement with the Simplified Trade Systems Implementation Task Force on its journey in simplify cross-border trade.

### Safety Data Collection

With the transport of cargo comes the requirement to ensure that dangerous goods, especially those related to technology advancements like the growing use of lithium batteries, are safely stored and transported by air. IATA places utmost priority on safety and continues to invest in efforts to make aviation safer through the sharing of best practise and raising, for example, awareness of lithium batteries risks. Most governments do not widely share safety data, this prevents the industry from developing better measures to combat recurring safety incidents. Data sharing management platforms such as IATA's Global Aviation Data Management<sup>50</sup> allow airlines and ground handlers to share safety related incidents, highlighting critical trends on a regional/global scale to assist stakeholders in benchmarking and meeting their cargo safety audits and assessments. Utilizing a similar model between governments would allow the sharing of data to enhance safety-related screening standards and create awareness of lithium battery air incidents.

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<sup>49</sup> Catch the Wave of Linked Data with ONE Record, IATA ([https://www.iata.org/contentassets/a1b5532e38bf4d6284c4bf4760646d4e/one\\_record\\_catch\\_the\\_wave\\_of\\_linked\\_data\\_with\\_one\\_record.pdf](https://www.iata.org/contentassets/a1b5532e38bf4d6284c4bf4760646d4e/one_record_catch_the_wave_of_linked_data_with_one_record.pdf))

<sup>50</sup> IATA, 'Global Aviation Data Management (GADM)' 2023, viewed 23 November 2023, <https://www.iata.org/en/services/statistics/gadm/>



## Chapter 9 – Emerging Aviation Technologies

IATA is closely monitoring and in the process of establishing an industry position about emerging aviation technologies. Whilst we will not be commenting in detail to this question, we nevertheless acknowledge the potential of new and emerging aviation technologies that will help to strengthen safety, streamline operations, and promote environmental sustainability in the aviation industry. The Australian government's role in fostering international cooperation, shaping regulatory frameworks, and setting industry standards is crucial in effectively addressing the challenges and seizing the opportunities brought about by these technologies as they are paving the way for job creation, economic expansion, and increased competitiveness.



## Chapter 10 - Future industry workforce

### 10.1 Current Challenges and Outlook

- *Can alignment of training with regulatory and licencing requirements be improved?*
- *How can government policy enable industry to support the net zero economy and the future skills, training, and workforce needs that entails (including future fuels)?*
- *Would an analysis of future skills and workforce need help position the aviation industry to pre-emptively respond to emerging needs?*

#### Key Recommendations

1. Regulatory and licencing requirements can be achieved by the government prioritising industry collaboration, and strategic investment in training and development.
2. Australian Government should engage with the education sector to establish workforce pathways that prioritise skills sets in sustainable aviation fuels, carbon offset schemes and emerging technologies.
3. The JetZero Council will be an important contributor in making the necessary recommendations for future skills and workforce pathways needed to support Australia's aviation decarbonisation objectives.

#### Regulatory and licensing alignment

Considering the staffing challenges being faced by the aviation industry, IATA recommends that the Australian Government explore improving the alignment of training with regulatory and licensing requirements. The Government's role in identifying and prioritising areas of aviation where upskilling or retraining is required is crucial and will assist in determining the effectiveness of further regulatory and licensing requirements.

IATA's Aeronautical Skills Working Group (ASWG) conducted a study in 2022 that highlighted skills shortages in several areas, including flight operations (i.e. pilots and cabin crew), maintenance and engineering, and cargo and ground handling.

Addressing these shortages requires a multi-pronged approach. While attracting talent in a competitive job market is essential. There is also a need to harmonise functions and competencies using global industry standards and introduce a concept of mutual training recognition among aviation stakeholders. This would enable training efficiency, cost reduction, safer operations, and workforce mobility.

Moreover, the time required to develop necessary skills, especially for licensed professions such as pilots and mechanics/engineers, is a significant challenge. These professions require substantial time to meet set requirements, highlighting the importance of investing at the beginning of people's careers to ensure adequate staffing levels when needed. IATA asks the Government to consider ways in which smoother pathways can be introduced for those looking to join or move within the industry, as adding red tape will only place further pressure on future recruitment for the skilled workforce.

To ensure efficient service delivery and operational integrity, airlines expect ANSPs to maintain an appropriately sized workforce of suitably trained and qualified operational and technical personnel. They also anticipate that ANSPs will be continuously evaluating the operational environment to ensure that their staff are trained and equipped to deal with new technologies safely, effectively, and efficiently.

Through a combination of government prioritisation, industry collaboration, and strategic investment in training and development, Australia will be well positioned to improve the alignment of training with regulatory and licensing requirements. This will not only address the current staffing shortage across the sector, but also ensure the long-term resilience and sustainability of the aviation industry in Australia.

#### Policy levers to support a sustainable aviation workforce

The aviation sector is not immune to shifts in the skillsets and responsibilities of current roles, necessitating adaptation as we move towards a net-zero future. This adaptation is particularly crucial for the aviation industry, requiring substantial investment in the creation of innovative training initiatives. IATA outlines a strategy to achieve net-zero carbon emissions by 2050 in its road maps. The roadmaps highlight that there are several key components for which workforce skill development will be crucial.

- **SAF:** Contributing to around 65% of the reduction in emissions needed by the global aviation sector to reach net-zero by 2050, the successful implementation of SAF is heavily dependent on the availability of skills that facilitate the production, collection and refining of feedstock.
- **New Technology:** Electric and hydrogen powered aircraft are expected to account for another 13% of the emissions reduction that will be reliant on engineering, and hydrogen specialist areas.



- Infrastructure and Operational Efficiencies: Workforce capable in improvements in these areas will also contribute to emissions reduction and therefore industrial and infrastructure design skills sets will be critical in this area.
- Offsets and Carbon Capture: These technologies will also play a role in achieving net-zero emissions and understanding the evolution of CORSIA (Carbon Offset and Reductions Scheme for International Aviation) at ICAO and compliance measures will be fundamental skill set requirements.
- Regulatory and Policy Understanding: As the aviation industry works towards the net-zero carbon emissions goal, understanding and adapting to changes in regulations and policies will be key.

It is therefore important that the Australian government engages with the education sector on establishing workforce pathways that address, as a matter of priority, skills set that will enable the development of sustainable aviation fuels and carbon offset schemes, whilst building on skills to support emerging technologies such as electric and hydrogen powered aircraft and drones.

Filling skills needs and building Australia's future workforce is a critical component in the ability to capture the economic opportunity presented by the net zero decarbonisation journey. Rising to these challenges will require a strategic approach to growing the overall labour force in priority areas and building the supply of specialist skills.

IATA provides training qualifications that are recognised around the world and based on global standards. IATA is committed to supporting the Australian Government were needed to address the future training needs of Australia's workforce.

### How the industry can pre-emptively respond to emerging needs

IATA highlights the Australian Government (under the auspices of Jobs and Skills Australia) capacity study on the workforce needs for Australia's transition to a clean energy economy. We deem this study to be a good first step in making the necessary recommendations that outline the support needed for higher education, VET, migration, and on-the-job training to grow the workforce in supporting the decarbonisation of Australia's economy.

The study paper provides insights to support the workforce planning, policy development, and program design needed to build a strong and vibrant clean energy sector. However, IATA does hold reservations on the lack of attention given to the aviation sector, within the scope of the study.

The Australian Government could, with the guidance of the recently established JetZero Council, explore recommendations on the specific areas of workforce skill development and investment that will be needed to achieve the goal of decarbonising the aviation sector by 2050. The JetZero Council will not only ensure that the aviation sector is able to meet its emissions targets, but also that it has the skilled workforce necessary to sustain these changes in the long term.

## 10.2 Regulatory and Cultural Barriers

- *How can industry and Government help industry to attract a more diverse workforce, and increase the number of women and young employees who pursue aviation careers?*
- *What role can reforms to skilled migration pathways play in addressing immediate aviation personnel shortages?*
- *Are there opportunities to improve recognition of overseas training qualifications?*

### Key Recommendations

1. The Australian Government could commission a review to be carried out by the Women's Economic Equality Taskforce together with industry with the objective of establishing a strategy that will prioritise advancing gender equality and the rights of women in the aviation sector.
2. Government should work with industry to identify gaps in the workforce that need urgent attention in order to work towards effective solutions.
3. Government should explore methods for achieving mutual training recognition among universities, colleges, and aviation stakeholders to enhance efficiency and reduce costs for the industry.

### Attracting a more diverse workforce

Through driving the importance of diversity, equity & inclusion (DE&I) in campaigns, the Government is highlighting its belief that this will be crucial for driving innovation and fostering competition in the aviation industry. A diverse and inclusive workforce throughout the aviation value chain, especially in the areas of senior managers, is a real magnet for innovation.

In 2019, IATA launched the 25by2025 initiative, an industry-wide diversity and inclusion project that aims to increase the number of women in senior positions by 25%, either against currently reported metrics or to a minimum representation of 25% by 2025. The purpose of 25by2025 is to advance much-needed change and showcase the actions taken to change the status quo. By joining 25by2025, airlines commit to increasing female representation both in senior roles and in areas where women are traditionally under-represented.



Some of the key metrics used by industry to drive the initiative are:

1. Report annually on key diversity metrics
2. Increase the number of women in senior positions and under-represented areas by 25%, or up to a minimum of 25% by 2025.
3. Increase female nominations from their airlines for IATA governance roles to a minimum of 25% (IATA members only)

In addition to the commitments of member airlines, IATA itself has committed to increase the representation of women in its own senior management, in governance roles, and among speakers at its conferences, commits to:

1. Create a forum for sharing best practices on diversity & inclusion and collate industry metrics in an annual update.
2. Increase the number of women participating at events, panels, and conferences to a minimum of 25%
3. Increase the number of women appointed to IATA governance roles to a minimum of 25%
4. Increase the number of women in top senior positions to a minimum of 25%

While the above is only one example of our members commitment to DE&I, the Australian Government could commission a review to be carried out by the Women's Economic Equality Taskforce together with industry with the objective of establishing a strategy that will prioritise advancing gender equality and the rights of women in the aviation sector. It is important for the Australian government to note that there are many diverse opportunities in aviation than possibly other industry sectors, this provides and even greater opportunity for women.

### **Skilled migration pathways to address immediate aviation personnel shortages**

In August 2022, IATA conducted a survey, identifying the following reasons as the primary cause for workforce shortage in the aviation sector<sup>51</sup>:

- Recruiting sufficient staff is the initial difficulty that organisations face. This is especially true in parts of the world where the unemployment rate is low, and the job market is highly competitive. Hence, potential employees often have multiple career opportunities, both inside and outside the industry. Further to this, once recruited, the delay in deployment of operational staff due to training requirements, for example, often causes new recruits to change their minds.
- Multiple alternative opportunities: A competitive labour market is impacting recruitment and retention, making this one of the main challenges in the aviation sector. This is also a potential for certain aviation roles to be adapted for use in other sectors, with job stability being the primary concern.
- Lack of training capacity has also been cited as the main reason for the long 'time-to-deployment' among both new recruits and returning employees.
- The survey also determined that approximately 30% of all post-pandemic returning employees required re-training. For functions that require less training, the issue is managing the balance between the volume of staff needing currency training so they can return to service operational priorities and reduced training budgets.
- Budgetary constraints: Training budgets were significantly reduced during the pandemic. This has presented challenges both in terms of cost and time management in getting employees operationally ready.

Whilst IATA does not comment on governments' migration policies, we encourage the Australian Government to work with industry in identifying gaps in the workforce that need urgent attention and working toward effective solutions. It is important that industry prioritises the requirements for attracting both new and returning talent, while also collaborating with universities and colleges to develop innovative programs that enhance training efficiency.

### **Recognition of overseas training qualifications**

Australia is regarded globally for its high-quality education, student satisfaction and appropriately skilled workforce. It's for this reason that education is one of the country's largest exports. While taking this into account, it is important to recognise that there are other nation states that similarly advanced in their education standards.

The future of the aviation industry will be transformed by technological advancements. These changes will bring about positive effects on the industry. As the industry evolves towards increased digitisation and a greater focus on sustainability, there will be the growing need to establish and enforce global standards.

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<sup>51</sup> IATA, 'Aviation Workforce Skills & Training Report', 2023, viewed 29 November 2023, <https://www.iata.org/en/training/pages/workforce-skills-report/>



It is important for the Australian Government to explore methods for achieving mutual training recognition among universities, colleges, and aviation stakeholders. This will not only enhance training efficiency and reduce costs for the industry, but also promote safety and security within the sector. Most importantly, it will ensure compliance with global standards.

# Chapter 11- International Engagement

## 11.1 Bilateral Settings

- *Are there other issues or concerns associated with the Australian Government's approach to negotiating aviation bilateral agreements that you wish to highlight.*
- *What opportunities exist to improve the approach to international negotiations.*

It is important to note that the decision-making authority regarding air traffic rights rests with governments and that Australia has in place several open sky bilateral agreements. IATA will not comment on matters pertaining to such Government negotiations nor decisions.

## 11.2 Foreign Investment in Australia International Airlines

- *Are there problems or potential improvements related to the Australian Government's approach to managing foreign investment in Australian international airlines?*

It is important to note that the decision-making authority regarding foreign investment policy rests with governments and that Australia has in place the Foreign Investment Review Board to determine major foreign investment proposals. IATA will not comment on matters pertaining to such Government policy nor decisions.

## 11.3 Aviation International Engagement

- *What areas should Australia target through its international aviation programs?*
- *Are there opportunities for improvement and where would the greatest benefits be achieved?*

### Key Recommendations

1. The Government should consider greater engagement with other nation states to work towards equivalent outcomes-based security measures to facilitate the potential to reduce the re-screening of passengers.
2. For ongoing success in the Pacific, DFAT should continue its commitment to help enhance technical support to the Pacific Aviation Safety Office (PASO) to ensure harmonisation across the region.
3. The Sustainable Pacific Aviation program should aim to align and support the Blue Pacific Strategy to ensure inclusive, affordable and accessible air transport in the region.
4. Australia should continue to take the lead in the Pacific through its leadership on the ICAO council.

### Recognition of equivalence

As global passenger traffic increases and the industry continues to face challenges in the face of workforce shortages, the Government should consider greater engagement with other nation states to work towards equivalent outcomes-based security measures. This will facilitate the reduction of re-screening passengers, such as those who have been screened to equivalent standards and who remain within a security sterile environment and will therefore improve the passenger experience whilst maintaining the security of the system. To that effect, the *Recognition of Equivalence* under ICAO Annex 17 standards<sup>52</sup> would be a key resource when formulating the regulations that can facilitate the benefits arising from the recognition and acceptance of such equivalent outcomes-based security measures.

It is this principle that should be borne in mind during airport design when designing security checkpoints that leverage and integrate technological innovations in screening capabilities to not only respond to evolving specific threats but also facilitate and respond to various models of passenger risk-based security screening flows.

### Australia's role in the Pacific

Australia, as a member of the ICAO, has made significant contributions by providing key recommendations in the Asia Pacific region, where air travel is crucial for economic development and social connectivity particularly in neighbouring Pacific Island nations.

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<sup>52</sup> *ibid*



Airlines, tourism authorities and regional organisations in the Pacific play a crucial role in promoting cooperation, stability, and development. The proliferation of air travel in the Pacific Islands is particularly important. Across the region, the aviation market is characterised by small, geographically dispersed populations which provides its own set of challenges to the operating airlines. Air services are heavily relied upon for connectivity, key trade routes, and tourism support, with the Pacific Island inbound tourism industry contributing significantly to both GDP<sup>53</sup> and employment.

Australia plays a crucial role in the Pacific, both through assisting neighbouring states in their economic development and ensuring that the economic wellbeing of the region is safeguarded. Through the support of regional development initiatives, IATA commends the Australian Government for providing the necessary support to deliver infrastructure financing and aviation-related projects across the region. It is evident that any form of sustained development will necessitate long-term collaboration amongst the Island state governments and its neighbours.

The Australian Infrastructure Financing Facility, established by the Department of Foreign Affairs and Trade (DFAT), has played a critical role in enhancing and building transport safety and infrastructure capabilities in the Pacific Islands. It is vital that the Government continues to provide this support, as, given the inextricable regional connections between air connectivity and economic growth, this will allow the region to prosper.

Air travel in the Pacific region remains challenging as airlines prioritise their operations by managing costs, optimising operational efficiency, and addressing the unique demands of their specific markets. However, the most important factor for airlines and their governments continues to be financial independence.

It is important to translate these key challenges in the areas that most impact aviation in the Pacific, namely:

- **Safety and Security:** For airline operations to be viable, Pacific airlines need to ensure that a high standard of safety and security is always met. Regional and State Oversight through ICAO regional support and the Pacific Aviation Safety Office (PASO) is fundamental.
- **Capability and Capacity building:** Pacific Island states have been severely affected by a workforce shortage in the aviation sector, and this has been further amplified in the post-pandemic context. It is important that the Government considers the future needs for skilled pilots, engineers in the Pacific Islands as well as appropriate training initiatives must be identified, and support must be directed in the areas that address aviation safety and security. IATA would welcome the opportunity to discuss this in more detail and the work that has been done by the Association of South Pacific Airlines (ASPA) on training needs in the Pacific.
- **Market Scale:** Pacific Island airline fleets and the ability for these carriers to investment in expansion or modernisation presents challenges to intra-island connectivity, as well as flights further afield to the likes of Australia and Aotearoa New Zealand.
- **Regulation Differences:** In a workforce constrained environment, differentiating regulation in aviation activity amongst nation states adds layers of complexity and often leads to outdated manual practices.
- **Aviation Infrastructure:** The lower levels of developed airport infrastructure is an ongoing concern in light of the expected growth in passenger demand<sup>54</sup> and the ongoing need to meet international standards.
- **Environment and Sustainability:** IATA's Pacific Island members are committed to meeting the Net Zero emissions by 2050 goal. However, this goal will be particularly challenging for airlines as Sustainable Aviation Fuels (SAF) will be difficult to access in meaningful volumes, particularly in the remote Pacific where there is a strong reliance on the importation of crude and jet fuel.

While the Australian government has invested considerably in the Pacific, moving forwards and in the interests of the future of aviation development in the Pacific, the Australian Government should investigate these challenges so that it can align its initiatives with the needs of the region and the sector.

For the ongoing success of the Pacific aviation sector, IATA recommends:

- DFAT continues its commitment to help to enhance the technical support it provides to PASO, with the idea that regulatory aviation safety policies are harmonised across the region. IATA would welcome the opportunity to support this area through the IATA Operational Safety Audit program and provide reports that will complement the existing oversight and surveillance of airlines operating by PASO in the Pacific. IATA has similar agreements in place with Civil Aviation Safety Authority of Australia, U.S. Federal Aviation Administration, the European Aviation Safety Agency, and Civil Aviation Administration of China.

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<sup>53</sup> Post Covid-19 Pacific short-term aviation strategy – a scoping study, Pacific Region Infrastructure Facility, October 2020

<sup>54</sup> *ibid*



- The Sustainable Pacific Aviation program should aim to align and support the Blue Pacific Strategy in its initiatives to ensure inclusive, affordable, and accessible air transport in the Pacific region, and that the initiatives address the challenges outlined above.
- Australia needs to continue to take the lead in Pacific aviation, through its leadership on the ICAO council. The recent agreement on Pacific Small Island Developing States (PSIDS) with Fiji and the establishment of the ICAO Liaison Office for PSIDS in Fiji will be paramount in strengthening ICAO's Pacific presence.

In conclusion, it is of paramount importance for the Australian Government to continue to invest in the aviation sector's footprint in the Pacific Islands, as this will not only contribute to economic, social, and cultural development of the region but also ensure that the Pacific moves towards a sustainable air transport future.