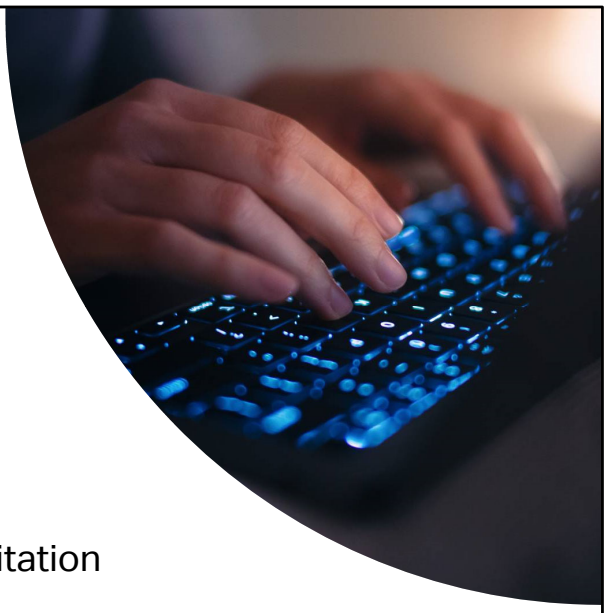
IATA
GLOBAL
MEDIA DAY

Hot Topics Opportunities in Digital Identity



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Two Key Trends are Redefining the Travel Experience:

Smartphones

Biometrics

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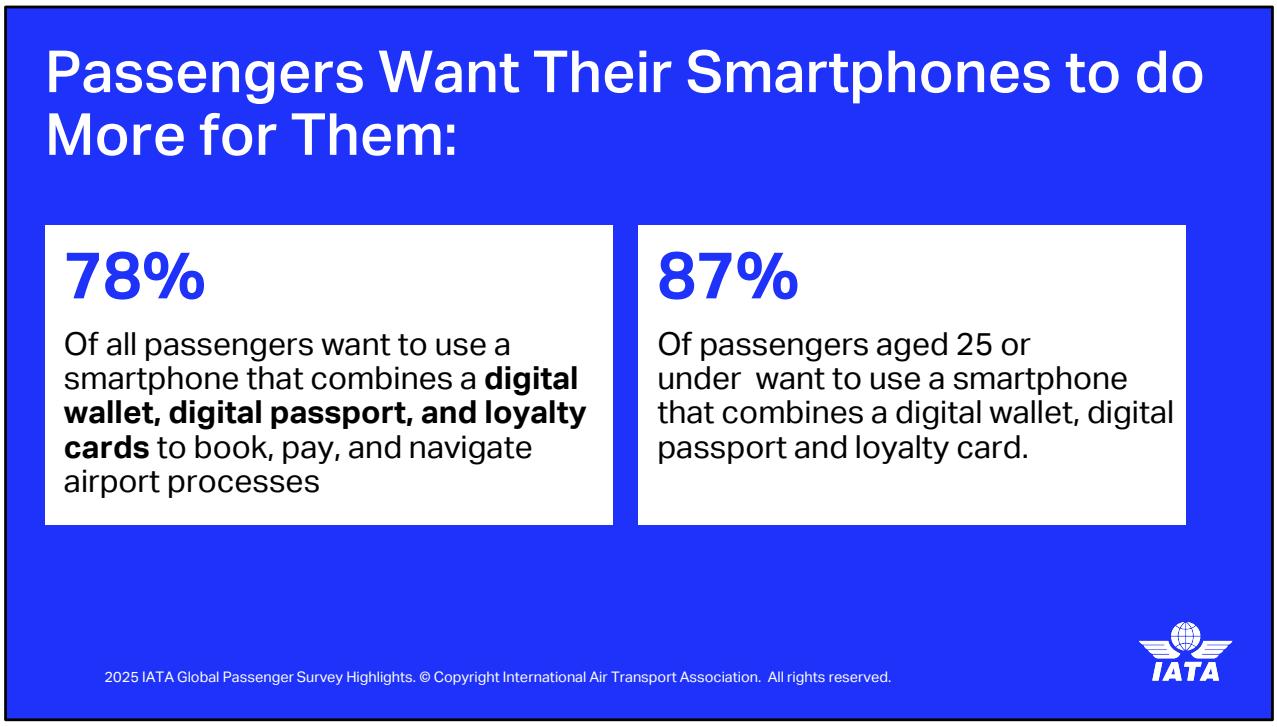
Smartphone are for us to act whenever convenient, while at home or stuck in traffic

and biometrics are the solution to keep our phone, boarding passes and passport in our pockets or wherever they are the bottom or our bags when we walk through the airport



Almost 8 out of 10 passenger want smartphones with digital credentials to book, pay and navigate the airport process

And when you look at the younger generation this goes up to 9 out of 10. So as we prepare our industry for the future we need to prepare for them

Passengers want seamless travel.

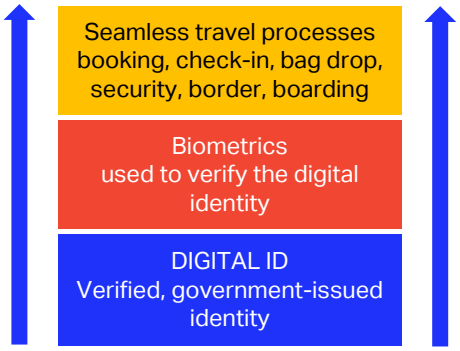
Digital ID is the foundation.

When we talk to travelers, the message is consistent: they want a journey that is fast, simple, and efficient. No repeated document checks. No friction at each touchpoint. Just smooth movement through the airport.

Digital ID is the foundation. It allows a passenger to verify their identity once and reuse that verification throughout the journey.

Why Digital ID Is the Foundation of Seamless Travel

- All travel processes depend on identity
- A secure digital ID makes that identity reusable
- It unlocks automation and biometrics
- It enables interoperability between countries and airlines
- It reduces friction for travelers



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All travel processes depend on identity - Booking, check-in, bag drop, security, border control, boarding.

Every step begins with the question: “Is this person who they claim to be?”

A secure digital ID makes that identity reusable.

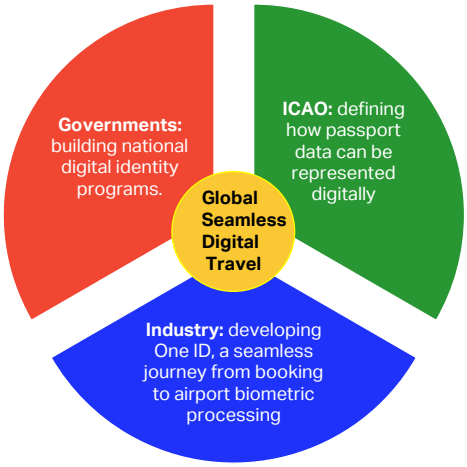
The traveller presents their identity once, then reuses it without repeatedly showing documents. It unlocks automation and biometrics. Biometrics can only be trusted when linked to a verified digital identity.

Without Digital ID, biometrics are just photos of a face.

Digital ID is the “source of truth” that powers every seamless travel experience.

Without a trusted digital identity, there is no seamless journey — just biometrics attached to paper documents.

The Three Actors Shaping Digital Identity in Travel



Three major efforts exist, but they're not fully connected.

Three big pieces are being built but often independently.

- Governments: building national digital identity programs.
- ICAO: defining how passport data can be represented digitally.
-Industry: developing One ID, a seamless biometric journey from booking to boarding.

The challenge — and the opportunity — is bringing these three worlds together.

INDUSTRY

One ID: The Industry's Vision for Seamless Travel

- Airlines and airports are increasingly using biometrics to streamline the passenger journey.

- Today, travelers can move through many checkpoints using facial recognition and digital ID tokens.

- Passengers benefit from:
  - Faster processing at check-in, bag drop, security, and boarding
  - Fewer document checks
  - Reduced queuing and improved flow through the airport

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INDUSTRY

What's Missing for 'Global' One ID

One ID works today in specific deployments, but does not scale globally until:

- Digital Identity credentials are government-issued or private sector-issued with government backing
- They are formatted to globally recognized standards
- They can be used across borders, not just within a single program or airport

ICAO

Introducing: ICAO Digital Travel Credential (DTC)

- The DTC is a digital representation of the data stored in your passport's chip.
- It's secure, build on government issued data, and globally standardized.
- It's excellent for border checks but hasn't yet been optimized for day-to-day airline operations like booking, bag drop, or boarding.

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This is where the ICAO DTC comes in.

The DTC is a digital representation of passport data,

essentially a copy of the data stored in your passport's chip.

It's secure, based on government-signed data, and globally standardized.

What it solves:
Creates a common format for digital identity
Ensures trust between governments, airlines, and airports
Enables biometric travel using authoritative data

Limitation to acknowledge (good transparency for media):
"Excellent for border checks — but not yet optimized for airline operations like booking, bag drop, or boarding."

GOVERNMENTS

Governments need to Start Issuing ICAO DTCs as Part of National Digital ID Schemes

- National digital IDs help governments authenticate citizens securely and enable digitalization of services within their borders
- DTCs convert passport data into an ICAO-standard digital format for cross- border travel
- Both are needed to enable global seamless travel
- Ensures global trust and security
- Enables cross-border interoperability

So far no governments have issued Digital Travel Credentials.

Pilots underway in Finland, Netherlands and EU through EU Wallet.

Why the EU Digital Identity Wallet Matters

The EU is building a government-backed digital identity wallet that can store both national digital identity and eventually ICAO-formatted passport data.

Private actors including Airlines can interact with it.

It's designed to minimize data sharing, increasing privacy and therefore reduce liability.

It could become the blueprint for global digital travel wallets.

Today I already have my digital French ID card in the French EU wallet

New large scale pilot APTITUDE starting with two work packages – one on Digital Travel Credentials and one on Ticket and check in.

What Needs to Happen to Scale Globally

1. Governments must make digital identity usable for travel

Open digital ID systems, including the EU Wallet, to airlines and travel partners based outside of their jurisdiction.

Ensure digital IDs can be recognized across borders

2. ICAO, governments and aviation must align on one global standard

Adopt a common digital credential format for travel (e.g., DTC)

Build interoperability so a traveler's digital ID works worldwide

3. Industry and governments must collaborate now

Prioritize seamless travel use cases: booking, check-in, bag-drop, border control

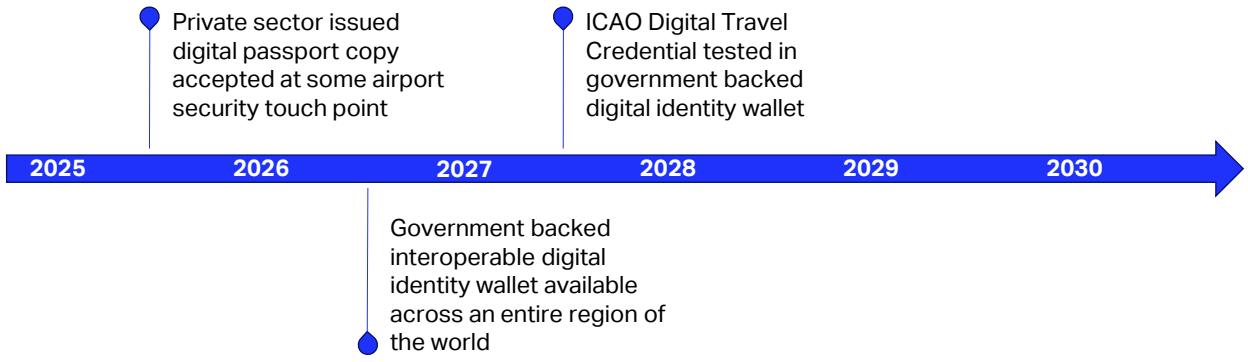
Put privacy and security at the center from the start

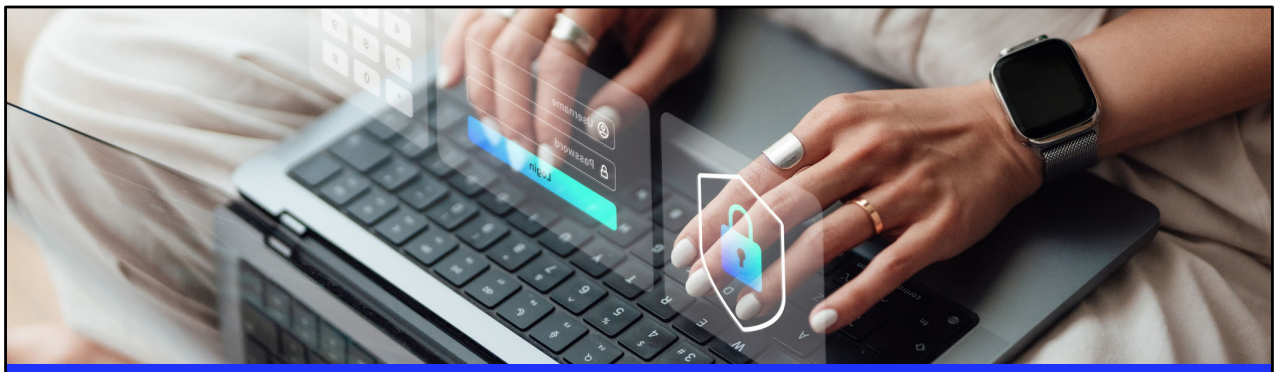
Scaling this globally requires cooperation.
Governments, ICAO, wallet providers, and the aviation industry must align.
The technology is ready — it's alignment that will unlock global digital travel."

Digital identity may be applied across the customer journey

Personalised offers	Faster, trusted bookings	Secure, frictionless payments	Seamless airport experience
Passengers can instantly prove eligibility (e.g., student, family, loyalty status)	A verified digital ID auto-fills required details — no repeated data entry	Digital ID prevents fraud and enables one-click checkout	Passport and visa data can be shared digitally for smoother boarding and border control

Steps are taken for digital passport to be widely used by the end of the decade





Digital ID isn’t only about smooth travel it will make aviation more efficient and safer

Inadmissible Passengers (INADs)

The cost of not digitizing passenger admissibility processing.

Who are the INADs?

Inadmissible Passengers (INADs) are travelers who are denied entry into a country upon arrival due to several reasons:

- Improper documentation
- Illegal entry attempts
- Other reasons not disclosed to airlines (i.e. asylum seekers, intent of travel, watchlist)

Inadmissible passengers, often referred to as INADs, are individuals who will, or who are denied entry into a country by its authorities upon arrival or during transit. This can happen for various reasons, such as ：

Improper Documentation: Passengers may lack valid and proper travel documents, visas, or health certificates required for entry, insufficient length of passport's validity, insufficient blank pages in passport, or traveling without proper identification

Illegal Entry Attempts: Using fraudulent documents, impostor

Other Reasons, such as Insufficient funds, exceeding allowed tourist days, or failing immigration interviews, security, are common causes.

Total rate of INADs

Total Number of Passengers	The total number of passengers carried in 2024 for the 49 surveyed airlines is 969,093,018
The total number of INADS	Total number of reported INADs cases in 2024 was 111,781
Overall Rate	Rate of INAD cases: 12 INADs every 100,000 Passengers

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INADs cases rate were obtained by dividing the total number of pax of surveyed airlines/the number of INADs cases.

NOTE!
While the rate is 12 every 100,000, data changes dramatically from airline to airline.
For example, one Europe-based airline operating with annual pax volume of around 40ml shows an INAD rate of 750 INADs every 100,000 pax.
Another airline from the Asia Pacific region with an annual pax volume of around 29ml shows an INAD rate of 5 INADs every 100,000 pax.

These discrepancies highlight an opportunities to further investigate differences across the airlines network and regional trends in the next steps of the analysis.

8 of every 100,000 flights were majorly disrupted due to INAD cases in 2024.

Explaining the bar chart: 29 airlines experienced rebooking of flight itineraries, 18 experienced delays …

Rebooking refers to the number of passengers that had to be rebooked to accommodate INADs repatriation? Other operational disruptions refers to..

- **1057 delays in total, giving 3 delays per 100K flights**
- **1920 re-bookings in total**
- **100 other disruptions**
- We can say based on the total number of flights in 2024. Ratio: 8 flights have a major disruption per 100,000 flights because of INADs.
- Calculation: (Delays) + (Re-bookings) + other disruptions / total number of flights in 49 airlines

INADs Cost the industry

Cost Components
INAD costs include direct logistical expenses and indirect penalties and fines

Average Cost Benchmark
The cost per INAD case may be up to USD$25,000, reflecting penalties and industry financial impact.

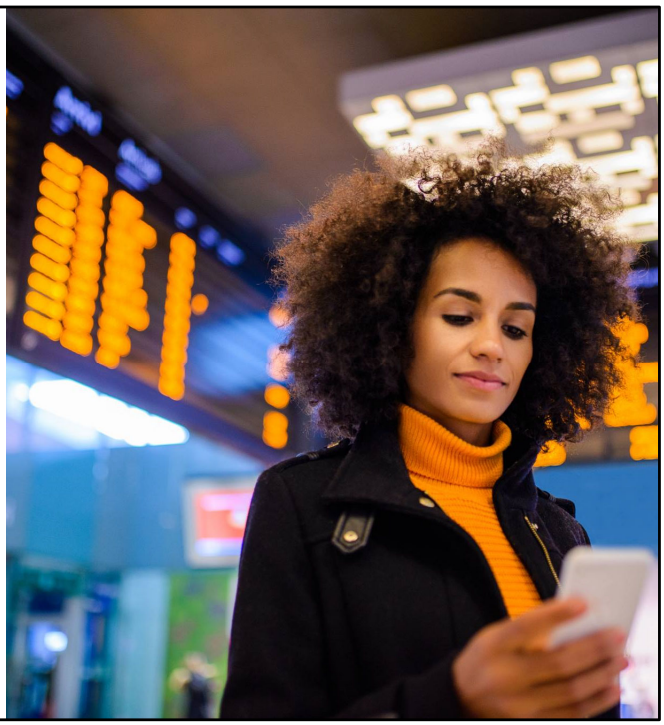
Note: costs analysis would also be affected local regulations, airline policies, and case complexity, which will be further analyzed in the next phase of data collection.

The cost of 10,000USD is based on the addition of all the expenses listed by surveyed airlines (such as escorts, penalties, repatriation flights, overbooking, security and legal assistance etc..) and divided by the number of participating airlines.

IATA One ID

The Solution!
Passengers arrive at the airport 'Ready to Fly' – all documents have been checked remotely and in advance – and experience a contactless journey through biometrics

One ID can transform passenger processing using Digital Identity technologies to ensure passengers meet admissibility requirements



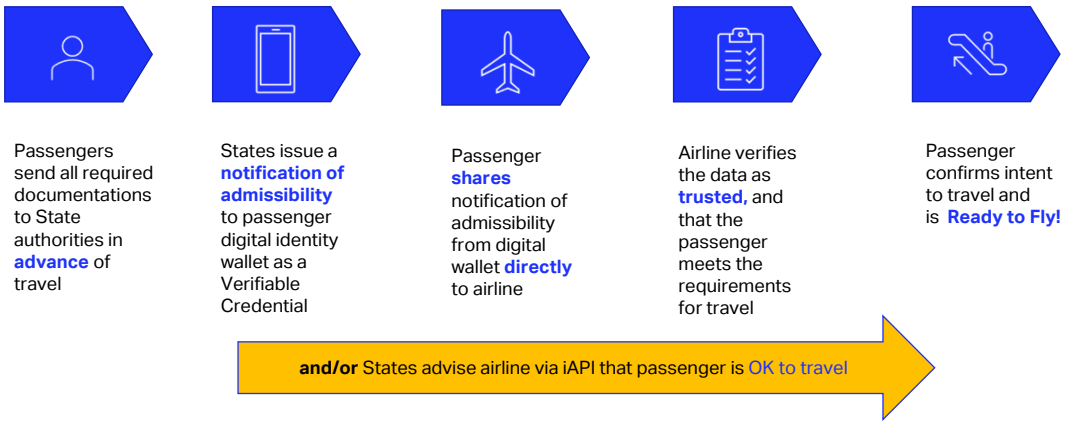
IATA has been leading the One ID initiative for many years and its vision and focuses have evolved after monitoring various trials and implementation and going through the pandemic.

Previously, it was more focused on biometric processes at the airport, but now its scope has expanded to cover when passengers prepare their trips at home before reaching the airport.

The One ID is looking at using digital identity technologies to transform the customer experience. We have divided the customer experience into two focuses, contactless travel through biometric-enabled identification at the airport environment and digitalization of admissibility in advance of travel, which means the digitalization of airline's document checking processes.

Through the contactless travel and digitalization of admissibility, passengers can arrive at the airport ready to fly. This is the vision of One ID.

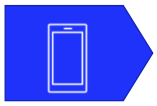
One ID – Digitalization of Admissibility (end state)



(the slide itself tells the story; no need for notes)

One ID – Digitalization of Admissibility (interim state)

Passenger uses an app to derive proof from government issued documents (e.g. passport, visa) that are issued to the passenger's **digital identity wallet** as verifiable credentials (VCs)



Passenger shares required information as VCs from digital identity wallet **directly** to airline as part of check in process (e.g. online in advance or at a kiosk in airport)

Airline verifies the data as **trusted** and confirms that the passenger **meets the requirements** for travel through digital document checking

Passenger confirms intent to travel and they are **Ready to Fly!**

*On the assumption that all other check in conditions are met

(the slide itself tells the story; no need for notes)

Domestic and International Passenger Integration Program (DIPIP)

Unlocking Benefits of Mixed Terminals with Biometric Solutions

AtkinsRéalis IATA

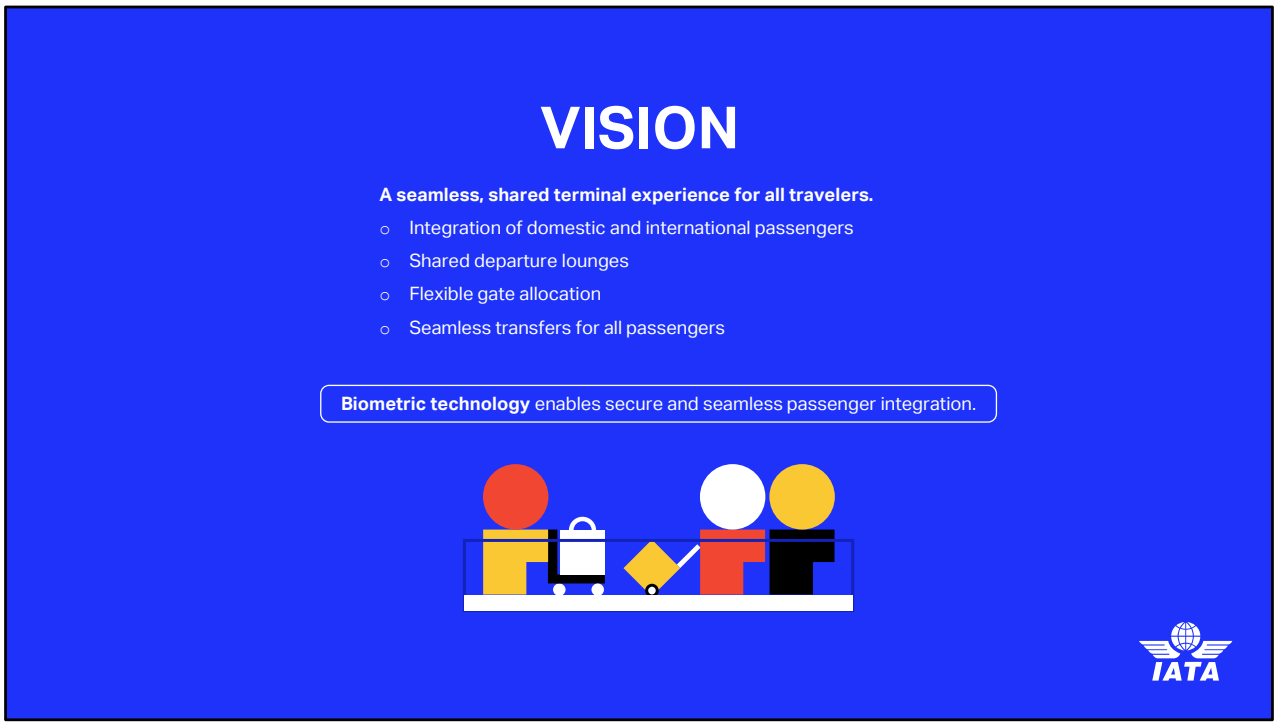
The burden of passenger segregation

Mandatory separation
of international and domestic passengers

Additional infrastructure
required to enforce segregation

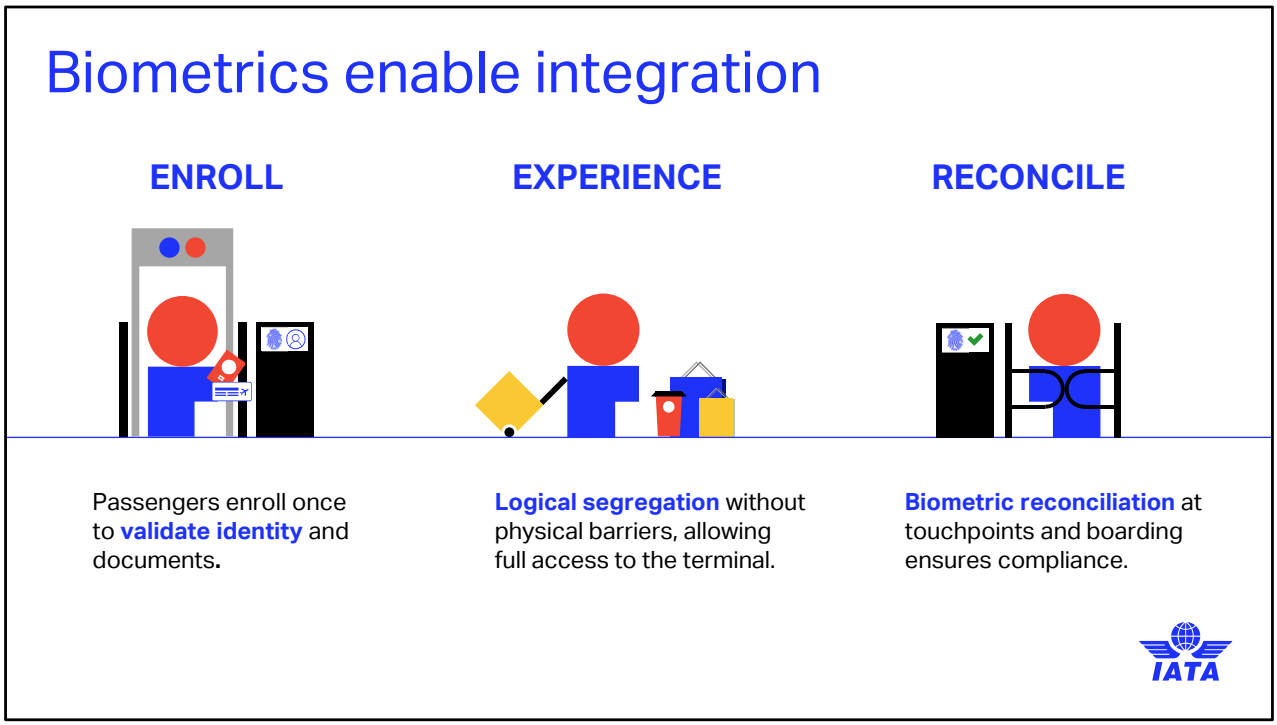
Duplicated resources,
rigid operations, and inefficiencies

We decided to undertake this project because most airports today are required to separate international and domestic passengers. Typically, this kind of segregation demands additional infrastructure—such as separate floors, buildings, or physical barriers—which leads to increased costs, duplication of resources, and reduced flexibility.

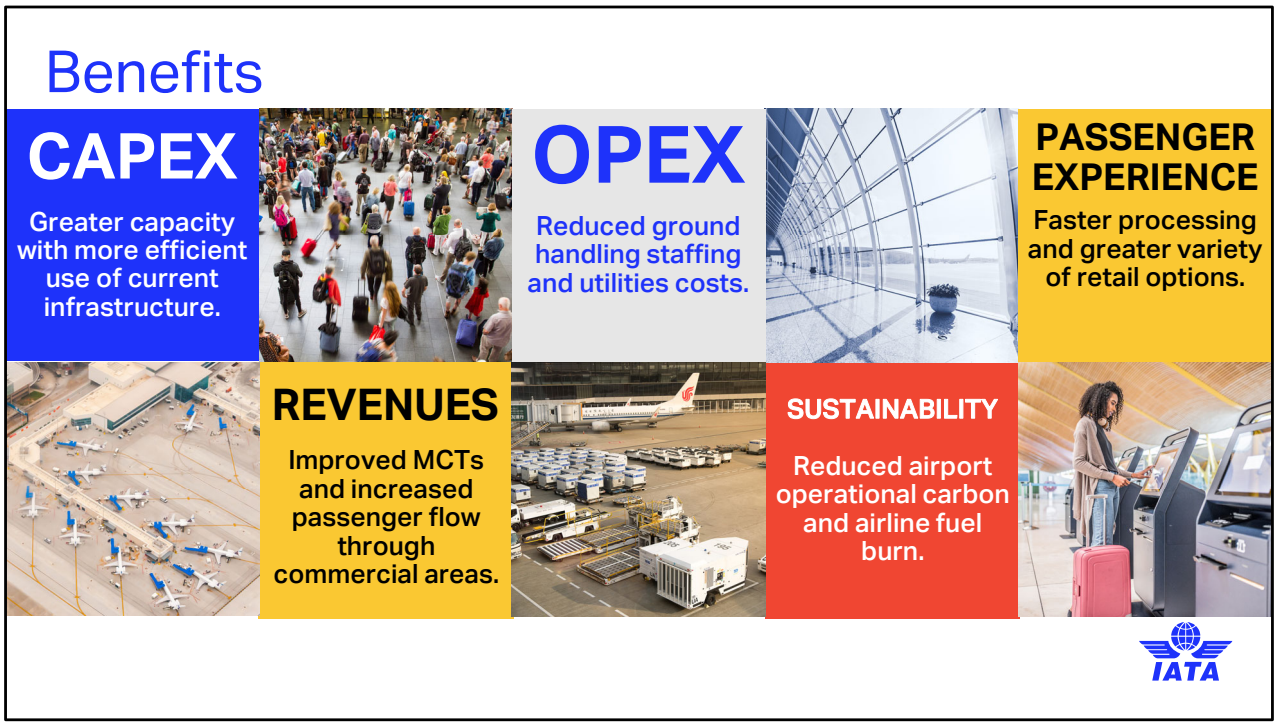


DIPIP envisions a future where passenger flows at airports converge, allowing travelers—regardless of their destination—to move freely through shared departure facilities until boarding. This integration unlocks several key benefits, including the use of common departure lounges, more flexible gate allocation, and smoother transfers for all passengers.

The foundation of this vision lies in **biometric and digital technologies**, which enable secure and seamless identification, making it possible to manage mixed passenger flows efficiently and safely.



Biometric technologies will distinguish between passengers allowing stakeholders to carry out the necessary checks on international passengers before they travel. This logical, rather than physical, segregation will see passengers **enroll** themselves in the biometric system, validating their travel documents if necessary and freely mixing in the terminal before undergoing a **reconciliation** at boarding. This reconciliation will confirm that they are the enrolled passenger and have been appropriately processed to travel.



We've grouped the benefits of this project into five key pillars.

First, there are **capital expenditure (CapEx) savings**, which result from more efficient use of infrastructure and the ability to delay or reduce the need for new construction as capacity grows.

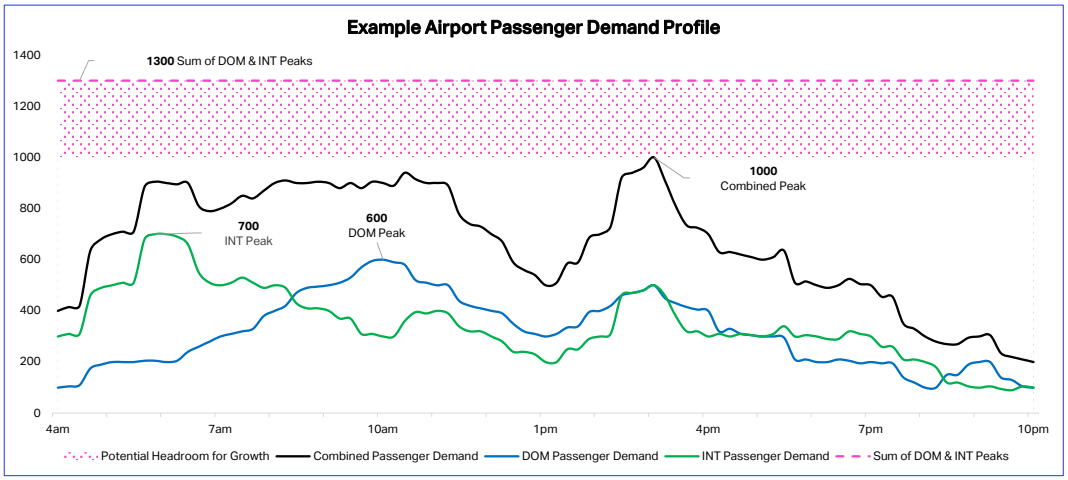
Second, we see clear **revenue opportunities**. By imoproving minimum connection times and enhancing the passenger flows through commercial areas within the airport—airports can drive increased customer satisfaction and spending.

Third, there are significant **operational expenditure (OpEx) savings**, thanks to improved staff efficiency and the elimination of duplicated resources, facilities, and energy consumption.

Fourth, the project brings **sustainability benefits**. Using less energy and building smaller, more efficient facilities helps reduce both embodied and operational carbon emissions.

And finally, Airport reputation is a key factor driven by **passenger experience.** Improving passenger experience through faster processing and greater retail options, and adopting advanced technology-enabled solutions, will enhance the image of both the airport and the airlines operating within it.

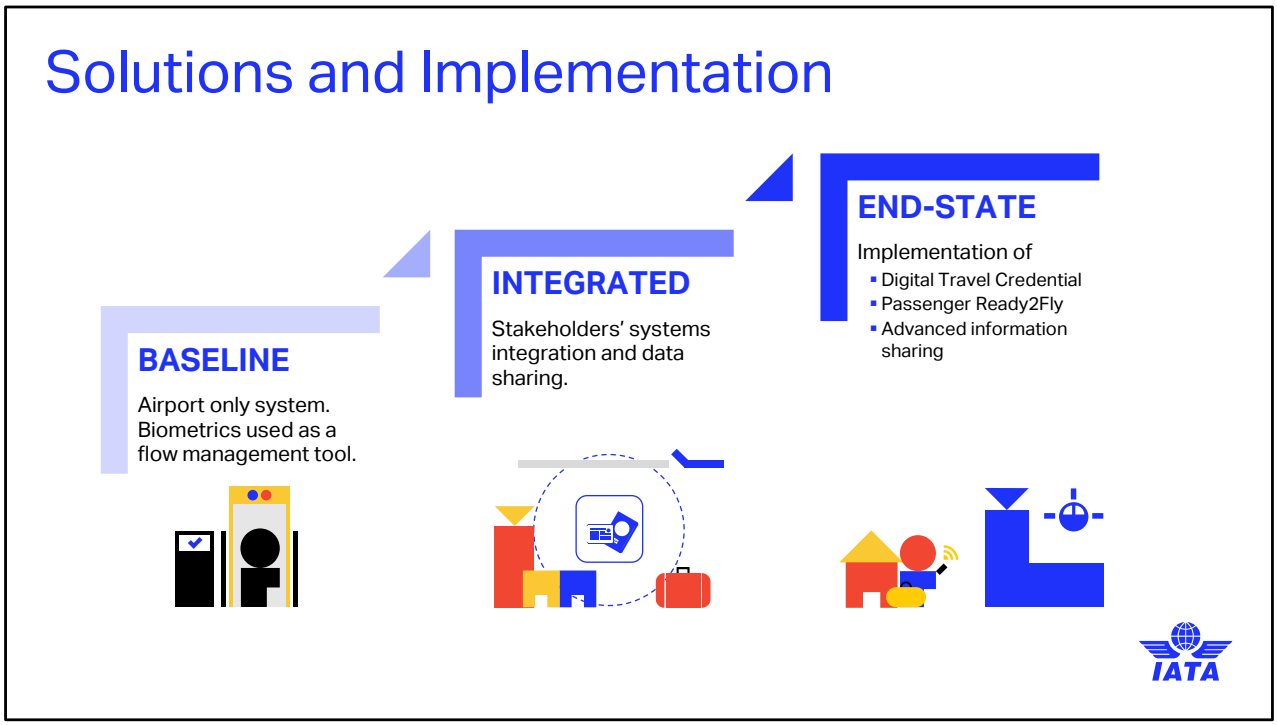
Benefit → Increased Capacity



One of the key drivers behind these efficiencies is the fact that, in most airports, international and domestic passenger peaks typically occur at different times. Designing infrastructure to accommodate each peak separately often leads to significantly larger requirements than if we sized for a **combined peak**.

In the example shown in the image, the airport experiences a peak of 700 international passengers and 600 domestic passengers. However, these peaks don't happen simultaneously. Instead, the combined peak—occurring at a different time of day—totals around 1,000 passengers. This means that by integrating both flows into the same area, we could immediately gain around **30% in spare capacity**.

While the greatest benefits come when peaks are staggered, it's important to note that **advantages still exist even if peaks overlap**. Greater flexibility, increased contact stand usage, and reduced towing requirements are all examples of improvements that would materialize regardless of peak timing.



The research done by IATA Airport Development team identified **three solutions** for the implementation of passenger integration that vary in **complexity** and **technological maturity,** from relatively straightforward 'bolt-ons' to existing systems, to cutting-edge, forward-looking designs.

1. **BASELINE IMPLEMENTATION**
   The Baseline Implementation involves biometric solutions for managing both international and domestic passengers within shared terminal spaces. This concept aims to **provide a consistent, biometric-enabled experience for all passengers**, ensuring efficiency and security **without significantly altering existing workflows**.

2. **INTEGRATED IMPLEMENTATION**
   The Integrated Implementation represents a significant advancement in biometric solutions, **introducing a highly mature and complex approach** to facilitating co-located domestic and international passenger flows. This solution focuses on reducing process duplication by **integrating biometric systems across multiple stakeholders, including border control agencies and airlines**. With close collaboration and system interoperability, this level of implementation unlocks efficiencies that go beyond what is achievable at the baseline level of maturity.

3. **END STATE IMPLEMENTATION**
   The End-State Implementation represents the **highest level of maturity** in biometric solutions, leveraging emergent technologies to create a seamless, decentralized, and future-proof system for managing combined domestic and international passenger flows. This concept envisions a **transformative shift from on-airport enrolment processes to mobile-based enrolment**, where passengers can use their personal devices to complete pre-travel identity verification and, for international travelers, emigration procedures.

Specific operational scenarios, budget availability, regulatory environments, and passenger experience goals of stakeholders will influence each airport's assessment of the most suitable integration strategy in their context.

Redefining Terminal Operations

The integration of domestic and international passenger flows is an enabler of **operational excellence** and **passenger satisfaction**.

> The time to act is now, let's lead this transformation as an **industry**.

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