SITA 2024 PASSENGER IT INSIGHTS

Contents

Executive summary

Air travel has soared since 2023, surpassing industry expectations, with forecasts suggesting further growth in 2024. SITA's 2024 Passenger IT Insights report sheds light on the evolving landscape of air travel, emphasizing the critical role of technology in enhancing passenger experiences and managing the anticipated surge in air travel demand.

As we look towards a future where air travel demand is expected to double to 8 billion passengers by 2040, growing at an annual rate of 3.4%, it becomes imperative to invest in technology for efficient passenger processing and capacity management.

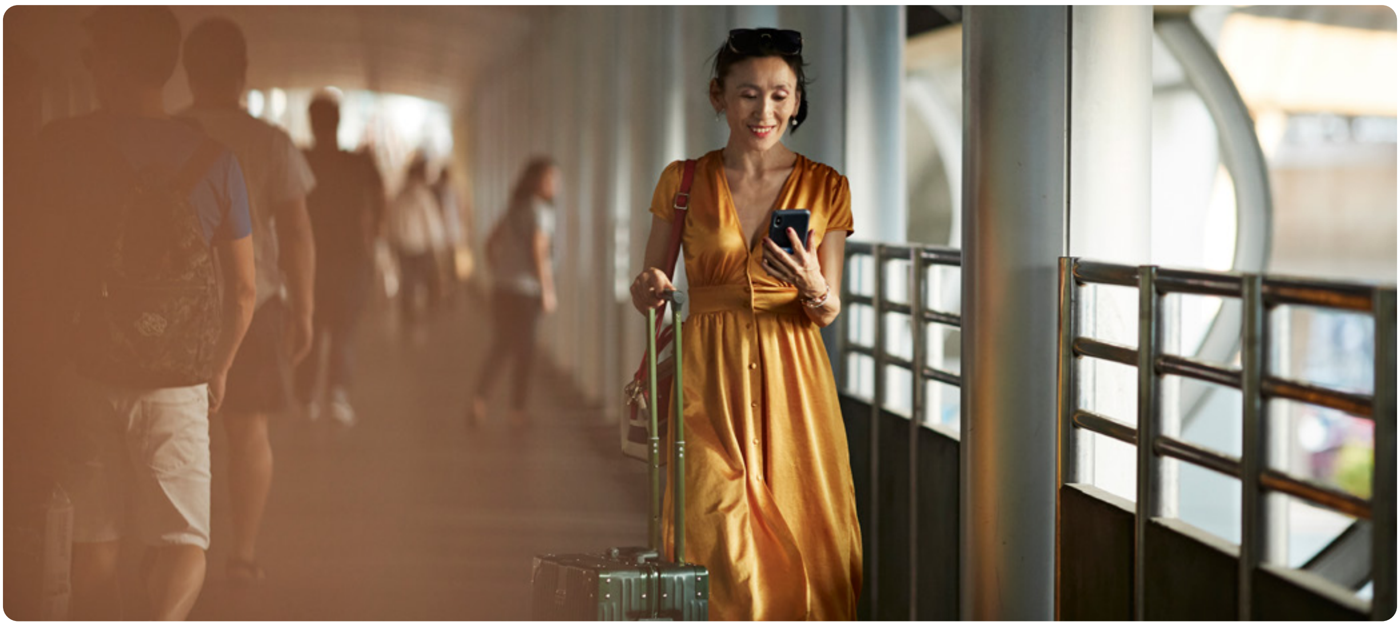
Technology usage remains high across various touchpoints of the travel journey, with 90% of passengers utilizing technology for booking and relying heavily on mobile devices for booking, dwell-time, and on-board activities. Moreover 64% of passengers said that the most important factor they'd like to see improved in the travel process is shorter waiting times at the airport. And technology is here to do just that. These trends underscore the importance of moving towards greater usage of digital travel credentials (DTCs). Already, three in four passengers are comfortable storing their passport on their phone and sharing digital identity and biometrics in advance of travel. However, the adoption of biometrics faces challenges due to privacy concerns, highlighting the need for education and reassurance about the safety and benefits of biometric technology.

Sustainability is another key focus, with travelers showing a strong willingness to pay extra to offset carbon emissions (11% on top of ticket price) and make behavioral changes, such as taking longer flights or carrying lighter baggage, to reduce their carbon footprint. Intermodal travel is also gaining prominence with 65% of travelers planning to book at least one interrmodal trip in the next year. Younger passengers and business travelers, in particular, show a higher preference for using travel agents to construct their itineraries.

Passengers see value in smart luggage solutions like baggage tracking on mobile devices and off-airport baggage collection and drop-off services. With the overall increase in passenger traffic, the flying pattern has changed. Avid travelers travel more, and the average number of flights taken by each has seen a notable shift towards personal rather than business travel.

As we step into the future, we are on the cusp of a new era in travel. SITA's 2024 Passenger IT Insights highlights major trends like technology, sustainability, and Intermodal travel that will transform and uproot the way we work. As we navigate this evolving landscape, it is crucial to address privacy concerns, invest in smart tech solutions, and promote sustainable practices to enhance the passenger experience and meet the demands of the future.

David Lavorel, CEO, SITA



TECHNOLOGY USAGE IN THE TRAVEL EXPERIENCE

In 2023, air travel soared, surpassing industry expectations.

According to IATA's 'Global Outlook for Air Transport' report, it is only going to continue growing. Predictions suggest that demand for air travel will double to 8 billion by 2040 – an annual average growth of 3.4%. This is an explosive level of growth, set to continue for a sustained period.

Given this, ensuring the passenger journey is smooth and efficient will be more important than ever to the aviation industry. Investment in technology will be essential for the industry to manage this growth, in particular technology that can help with capacity creation and improved passenger processing such as biometric identification, automated bag-drops and real time information systems.

In addition to the development of these key technologies, adoption by passengers will be fundamental. SITA research has shown that technology usage throughout the journey remains high across a number of touchpoints.

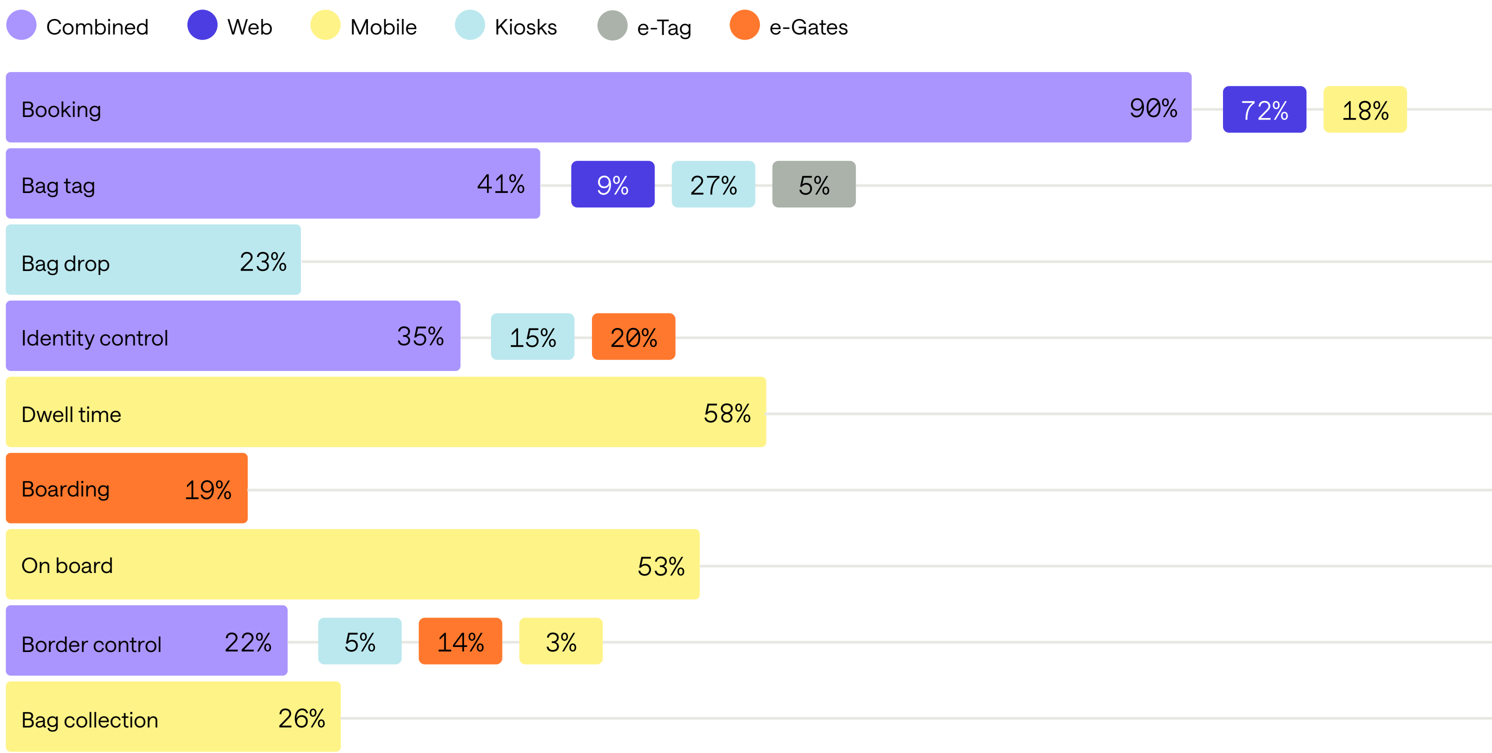
Usage at booking remains almost ubiquitous, at 90%, with 'dwell time' and 'on board' being the areas ranking second and third for highest technology usage.

Within booking, 'web booking' accounts for the majority of technology usage, although 18% is also 'mobile' booking. In addition, 'dwell-time' and 'on board' technology usage refers to 'mobile' use-cases, meaning a significant proportion of technology usage across the journey is mobile-based.

Looking back over time, we see an increased reliance on mobile devices at key stages of the journey. For example, back in 2019, only 8% booked travel via an airline app, whereas this has increased to approximately 20% over the last couple of years.

As highlighted last year, another technology area that airports need to continue to focus their efforts on is e-gates, where usage has remained flat year on year. These hold significant potential for enabling future growth, given the benefits of faster processing, subsequent shorter queues, cost benefits and more accurate verification. E-gates should therefore be a key priority in airport and airline ongoing digital transformation initiatives.

% of passengers using technology at each journey stage



DIGITAL TRAVEL CREDENTIALS

Potential exists for significant growth here. Technology innovation is a constant within the aviation space.

As seen above, the forecasted demand for travel will require airports to adapt and advance their digital capabilities to cope with increasing capacity and flow demands, without additional space. At the same time, they need to maintain a high standard of security. Utilization of digital travel technology is not something that is just nice to have – it is an inevitable outcome of the demands placed on the current air travel industry infrastructure.

As outlined in SITA's recent 'Digital Travel Paper', the benefits of embracing digital travel are multiple, from faster passenger processing to better optimization of resources, to enhanced security.

Benefits of digital travel:
By moving away from the reliance on physical documents, digital travel can tackle these challenges. Its many benefits include:

- Faster passenger processing and vastly improved passenger experiences
- New revenue streams for travel players
- Optimal use of resources and increased capacity & scalability
- Stronger security
- Rapid response to changes in operational processes brought about by regulatory changes, emerging health or security concerns, or commercial needs.

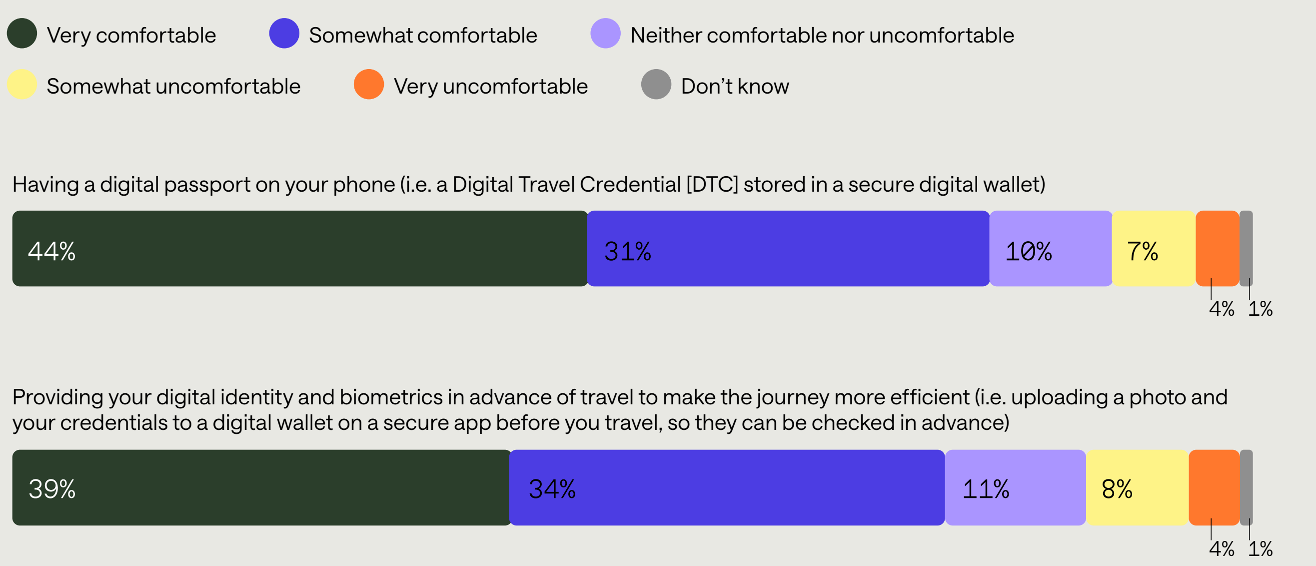
In light of all this, SITA's 2024 research explored in detail traveler views of one key innovation in this space, digital travel credentials. For clarity, the definition given to research participants was as follows:

A Digital Travel Credential (DTC) allows passengers to share documentation with governments before traveling, which helps governments manage who enters and leaves the country. DTCs are digital representations of a person's identity, such as a passport, stored in a mobile wallet. DTCs can be used to confirm that travelers have a valid passport and digital visa.

The outlook for the future of DTCs is highly promising, given that in total three in four passengers would be comfortable having their passport stored on their phone (75%) and similar numbers would be comfortable with providing their digital identity and biometrics in advance of travel (73%).

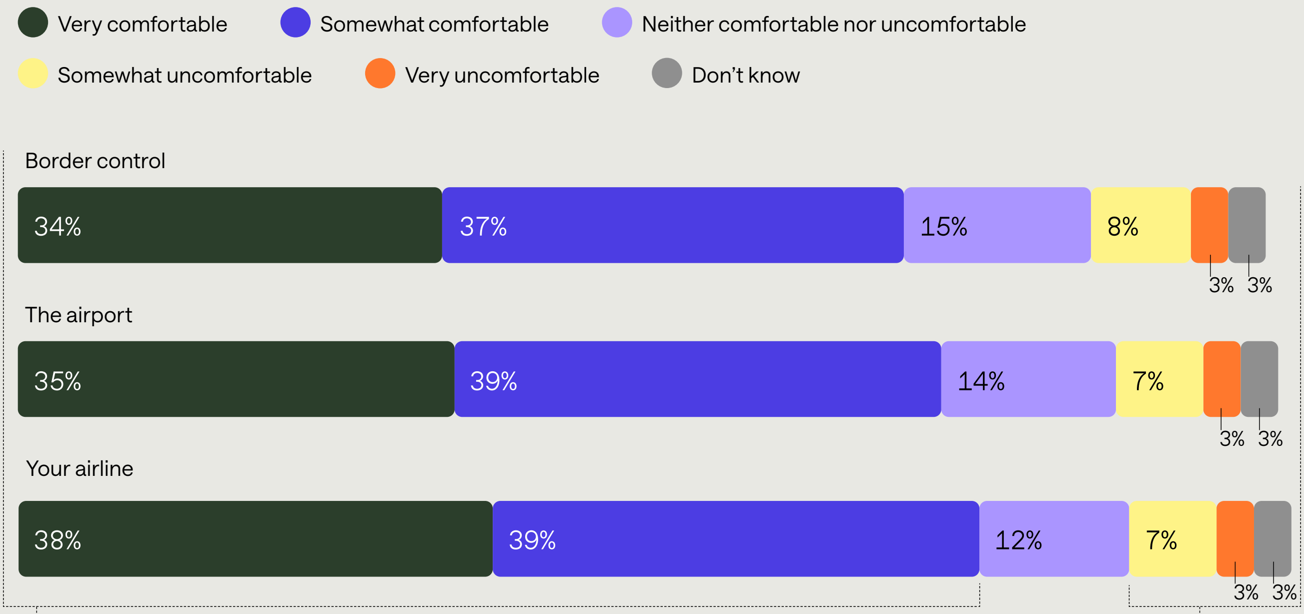
Looking at passenger demographics, comfort with both storing and sharing a DTC in advance of travel is significantly higher among men and younger passengers. Furthermore, frequent flyers are significantly more comfortable with storing a DTC in a digital wallet (84% vs 73% of infrequent flyers) and providing it in advance of travel (82% vs 72% of infrequent flyers). These younger, frequent flyers are likely to be early adopters of digital travel technologies as they become more widely available.

Comfort with Digital Travel Credential (DTC) in different scenarios



These initial figures suggest strong potential for the future of the technology, as currently there are no clear barriers to overcome in convincing passengers to accept the concept of digital travel. Looking at traveler comfort levels for sharing digital travel credentials with different operators, these are also high and consistent across the board.

Comfort providing Digital Travel Credential (DTC) to different operators



Three in four (76%) say they would be comfortable with sharing their DTC with an airline, followed by an airport (74%) and border control (71%).

Only one in 10 passengers report feeling uncomfortable with any of the travel operators, and only 5% of passengers are uncomfortable across all three operators.

Beyond people's comfort, SITA's study tested the perceived usefulness of digital travel credentials and whether there was an appetite for such a solution among travelers.

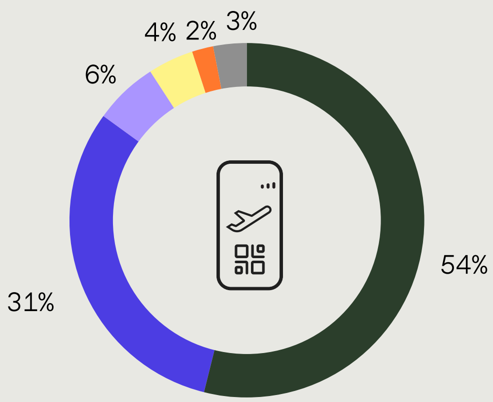
Here, travelers clearly see the potential benefits of a DTC. The majority (85%) believe that having a DTC would be useful to their journey, with more than half (54%) viewing it as something that would be 'very useful'. Younger travelers are particularly keen on this new technology, as over 90% of travelers aged 18-44 viewed DTCs as useful to their journey.

Appetite remains high even when a potential fee for the technology is introduced. Three in five travelers (62%) would be interested in paying for such a service, with over a quarter (26%) saying they would be very interested.

While frequent travelers are significantly more likely to say they would pay for a DTC (70%), the proportion of infrequent travelers who are willing to do the same is still substantial (60%), meaning there is widespread opportunity for rolling out the technology.

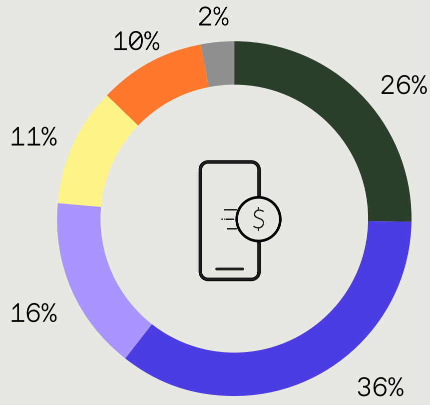
The perceived usefulness, and interest in paying for, a DTC is particularly high in Asia Pacific and Middle East/Africa regions, perhaps due to greater familiarity, as this technology is more widespread in these regions.

Perceived usefulness of having all travel documents automatically linked to digital identity and stored in a secure wallet on a phone



- Very useful
- Somewhat useful
- It would make no impact
- It would be a little unnecessary
- It would be a completely unnecessary
- Don't know

Interest in paying for a service that could issue a DTC



- Very interested
- Somewhat interested
- Neither interested nor uninterested
- Not very interested
- Not at all interested
- Don't know

One potential point of contention we explored in this study was around the issuing of the DTC – and whether travelers would insist this was a government-run initiative.

While only a quarter would trust a private company as much as a government, another 42% say they would still be open to such companies being the issuers. As a whole this means just under three quarters of travelers (70%) would trust – or be open to trusting – a private entity to issue a DTC, with only one in five (21%) saying they would not trust a private company.

The overwhelming view among travellers is that private organizations have the credibility and trust to issue such credentials.

Support towards private entities issuing a DTC is particularly pronounced among male passengers, younger passengers and those traveling for business purposes.

To what extent would you trust a non-governmental entity to issue a Digital Travel Certificate (DTC)?

I'd trust them as much or more than a government entity

28%

I'd trust them less than a government entity, but I would still be open to it

42%

I wouldn't trust a private company to do this

21%

Don't know 9%

BIOMETRICS

Biometrics: a need for education to solve a major frustration

SITA's study highlights that delays, long lines and wait-times are key causes of frustration in the travel experience.

When asking travelers which issues have the most negative impact on their overall journey satisfaction – 'long waiting lines' are the second most impactful issue (21%) in 2024, surpassed only by 'delays and cancellations' (43%).

Long waiting lines are also a widespread issue among travelers–with half (50%) having experienced them in the past.

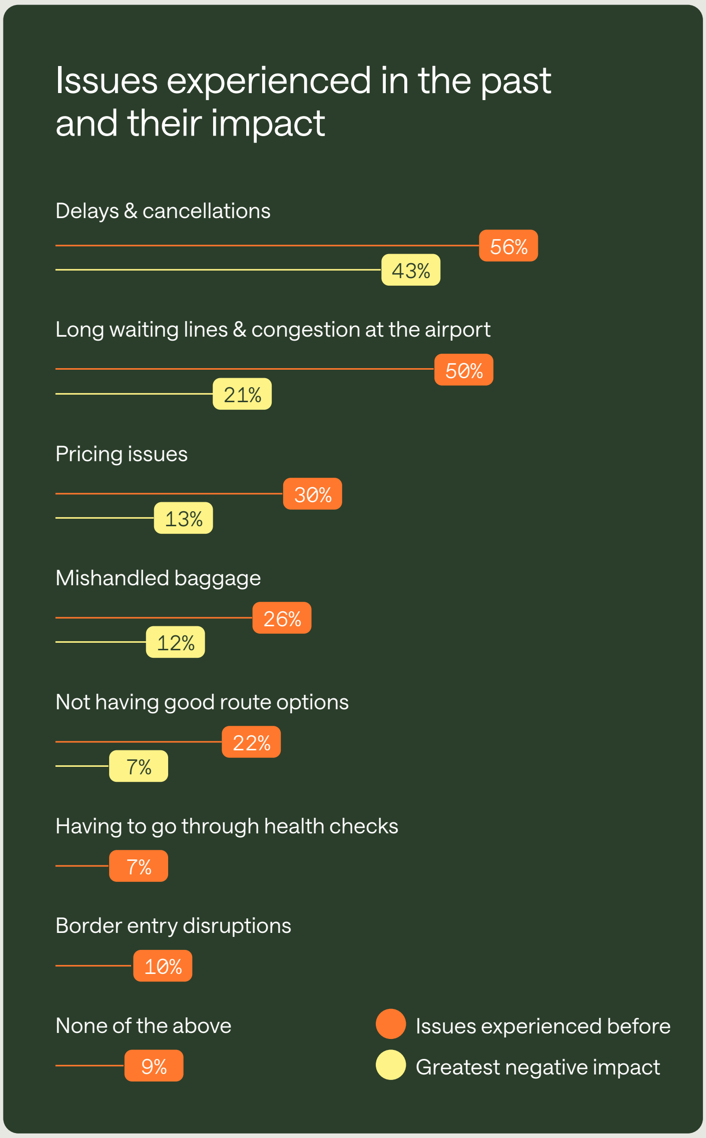
Similarly, when asking passengers what improvements they would like to see in the travel experience, shorter waiting times at the airport come out as by far the most commonly selected option (64%) – far ahead of areas such as ability to make a single booking for all legs of the journey (40%) or real-time notifications (34%).

It is clear that long queues and wait times are significant frustrations that passengers are keen to see improved.

Alongside digital travel credentials, one of the key areas of technology which could help to resolve these issues would be the wider use of biometrics across the travel experience.

A recent SITA white paper 'Face the Future' outlines in detail the importance of the adoption of biometric technology, as well as the significant benefits it will bring to the industry. The report highlights two key challenges that are ongoing or looming in the sector; staff shortages that have taken hold since 2020, and the upcoming need to better utilize airport space given the boom in passengers coming over the next 15 years.

These are both challenges that biometric technology can enable the industry to overcome, with more elements of the passenger processing experience being moved off-airport, freeing up existing staff to be where airport and airlines need them most, and driving faster processing for passengers once they arrive at the airport.

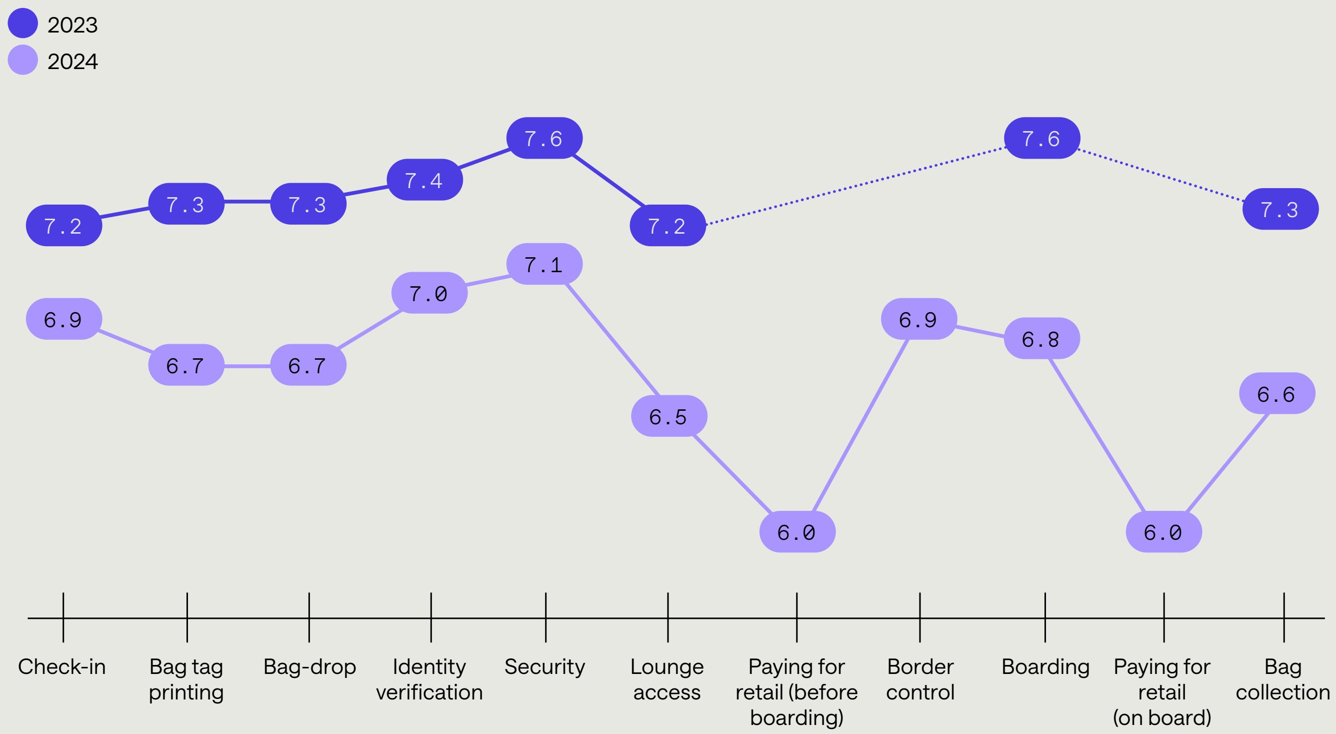


While airlines and airports need to take the lead in bringing biometric technology to life, the other aspect that is fundamentally important is the adoption of these technologies by passengers.

SITA's research has identified that in the last year there has been a decrease in how comfortable passengers are with the use of biometrics as identification – likely due to rising public reservations around privacy – with the average score across various touchpoints decreasing from 7.4 to 6.7 (out of 10).

'Security' (7.1), and 'Identify verification' (7.0) are the areas for which comfort levels are highest, but these remain below 2023 levels. While this still represents a relatively high level of comfort, it's an issue that the aviation sector will have to take note of – given the growing appetite for rolling out biometric initiatives among airports and airlines.

Comfort levels using biometrics at various travel touchpoints



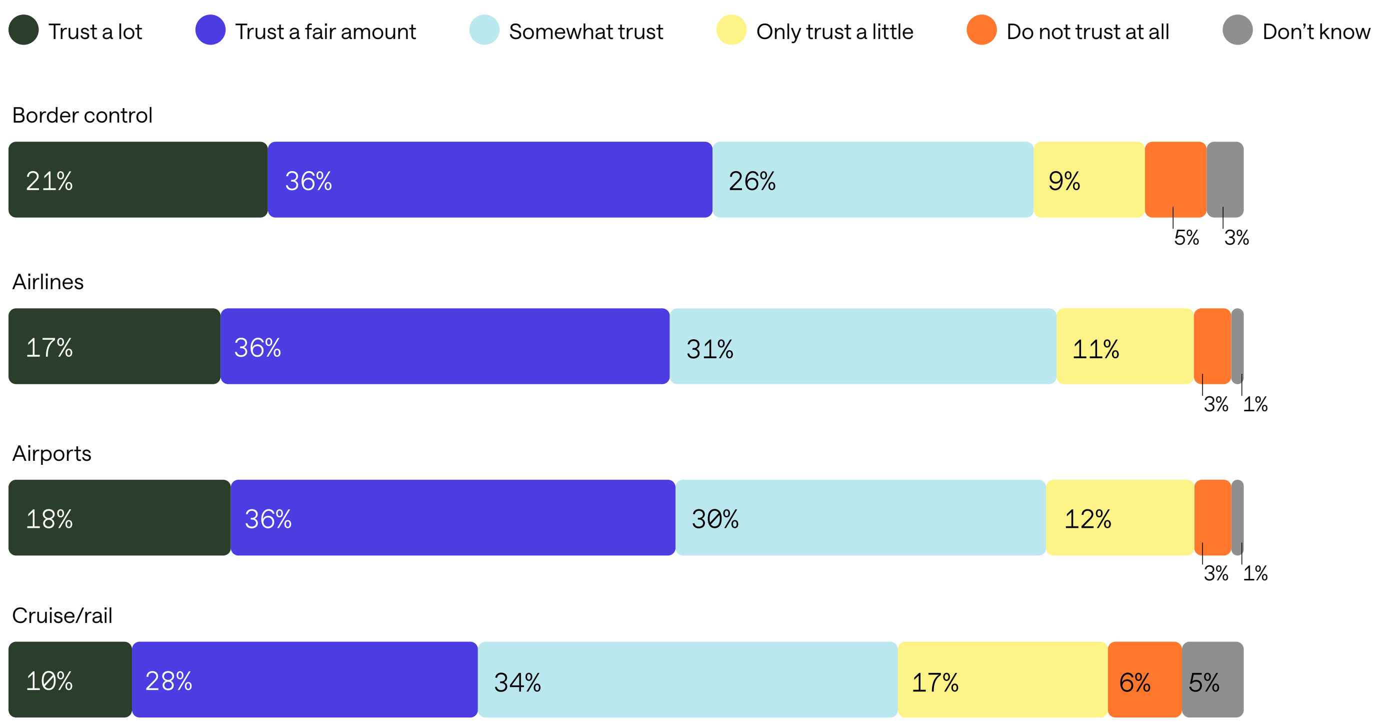
The research shows travelers' lack of comfort and trust with different types of organizations holding their personal data.

Most travelers say they would 'trust a fair amount' or only 'somewhat trust' border control, airlines and airports with their personal data. However, only around one in five say they would 'trust a lot' these organizations with their personal data (although aviation organizations do have higher levels of trust than those in sea or rail travel, where only 38% say they trust at least a fair amount). When we asked passengers what their main concerns were when it came to biometrics, the three coming up the most use : data privacy (49%), potential for identify theft or fraud (47%) and data misuse (44%).

To reap the benefits of biometrics and for travelers to experience its value, the industry needs to educate and reassure them about the safety and security of the technology. Added to that there is a need for education as to what exactly biometrics are, how they are used and what makes them so beneficial to the traveler.

As we've seen, passengers would clearly value a more efficient travel experience, so gaining buy-in for the use of biometrics is of significant importance.

Trust in different providers' handling of personal data



Main concerns when it comes to biometric identification

49% Data privacy/security	44% Potential for identity theft or fraud	47% Data misuse
32% Data sharing with other parties	26% Accuracy & reliability of biometric recognition systems	26% Not knowing how & if the data is deleted
13% Compliance with data storage practices	4% None of these	1% Other

SUSTAINABILITY

Overall, there is a strong willingness among travelers to take action when it comes to sustainability.

When asked what percentage of their ticket price passengers would be willing to pay extra to offset carbon emissions, the proportion willing to pay only 10% or less has risen from 53% in 2023 to 64% in 2024. Only one in seven wouldn't pay any extra, and there has been a small increase in the proportion willing to pay much higher sums (30% of their ticket or more).

Female travelers and younger travelers report a significantly higher willingness to pay more to offset carbon emissions than male and older travelers.

Overall, this means that despite the financial challenges that people are facing in the current economic environment, the average sum passengers are willing to pay on top of the original ticket price is 10.8% - the same percentage as in 2023.

While willingness to pay to offset carbon emissions has remained steady, passengers are also willing to make changes to their flying habits to lower carbon emissions.

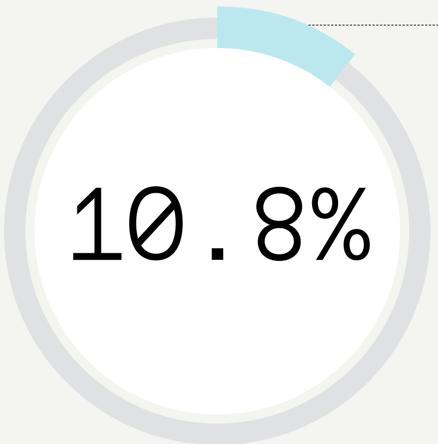
More than half (58%) would be willing to take a flight that was an hour longer if it meant a 25% lower carbon footprint, and a similar number (57%) would be willing to take a two hour longer flight for a 50% reduction (with planes flying at slower speeds incurring lower CO_2 emissions).

This means a majority of people are willing to give up an element of convenience for the sake of a more sustainable aviation experience.

To an even greater extent, people are willing to consider carrying/checking in lighter baggage for the sake of a lower emission flight. A full 81% say that they'd be willing to take less luggage or only take carry-on luggage if this was the outcome.

As we saw with carbon-offsetting payments, women and younger travelers are even more likely to be willing to make these sacrifices in the name of sustainability.

Overall, it's clear that both financially and behaviorally, there is appetite among passengers to do their part in reducing emissions in the aviation sector.



Average **percentage of ticket price** passengers would be willing to pay extra to offset carbon emissions of their flights in 2024

Net Range	2023	2024
<10%	45%	50%
10-20%	45%	38%
21-30%	6%	5%
31-40%	3%	3%
41-50%	2%	4%

Note: Responses selecting 0% are included in the net range '<10%'

Not only do we see passengers willing to make changes for the sake of sustainability – but increasingly they also want airlines and airports to encourage passengers to participate in further environmental initiatives.

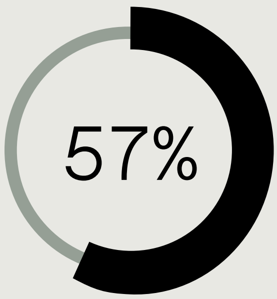
When asking about the sustainability initiatives that travelers value most from both airports and airlines – in both cases ‘making use of technology’ remains the primary area that travelers would value. It is clear that from the passenger perspective, they believe that technology lies at the heart of creating a sustainable aviation future.

Interestingly however, when considering both airports and airlines, the area seeing the biggest increase in perceived value since 2023 is ‘encouraging passengers to travel greener’.

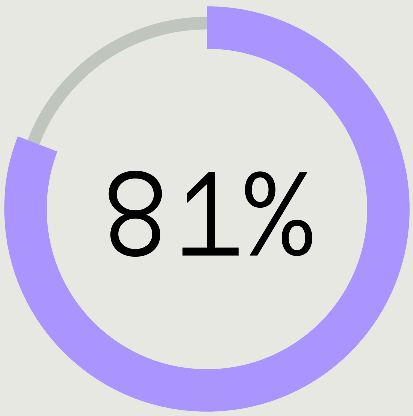
For airports, there was a 7% increase from 32% to 39% and for airlines the score increased from 39% to 48% – making it the second most valued initiative overall.

It shows that passengers are willing to consider changes in their personal travel for the sake of sustainability, but they also want organizations in the aviation sector to be driving wider adoption of environmental initiatives.

Would fly for **an hour longer,** for 25% lower emissions

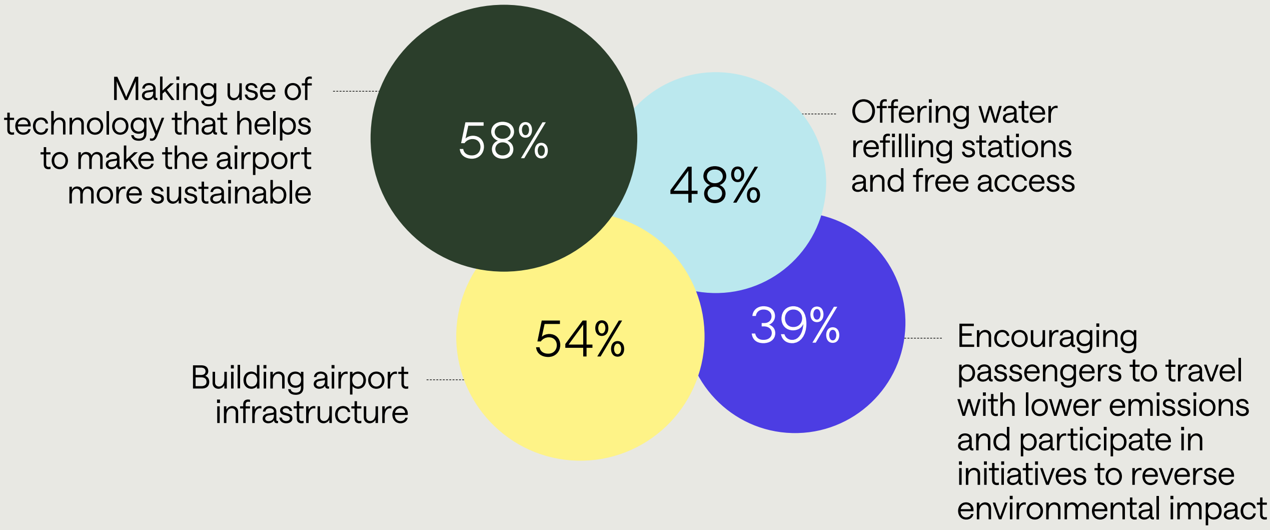


Would fly for **two hours longer at a slower speed,** for 50% lower emissions

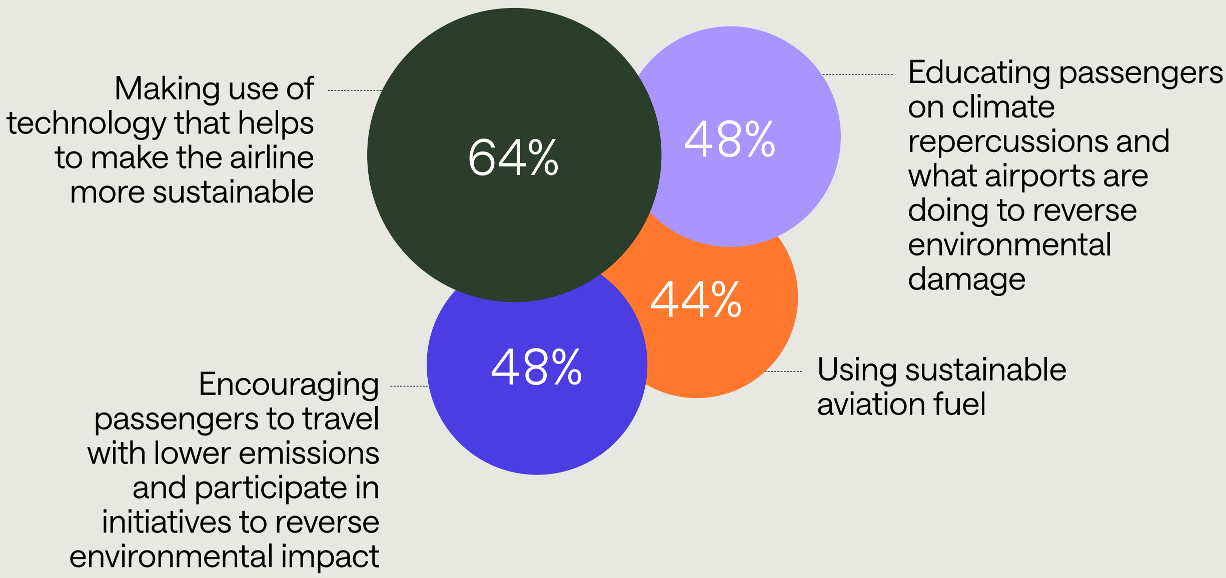


Would make **luggage changes** for a lower emission flight

Most valued **airport** sustainability initiatives



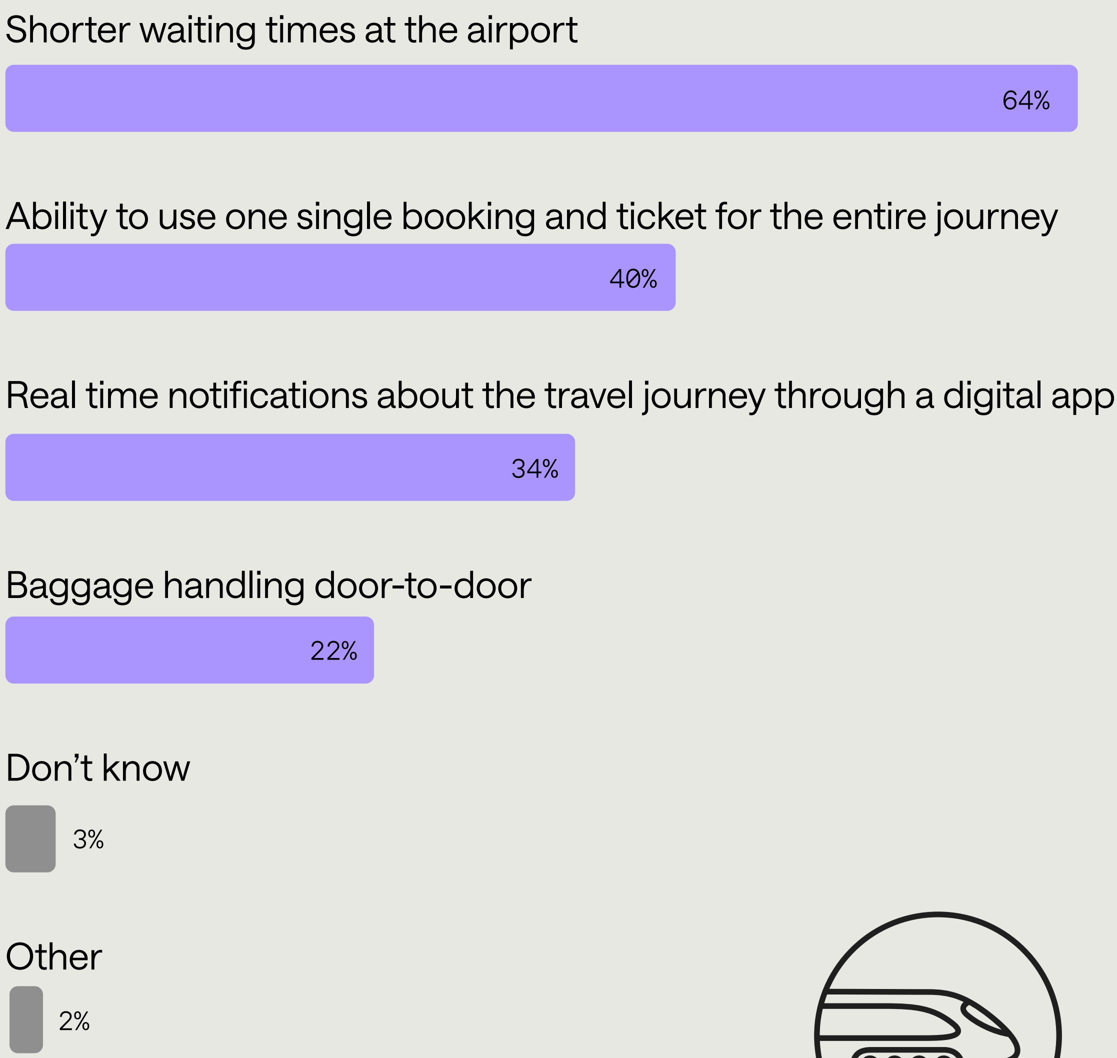
Most valued **airline** sustainability initiatives

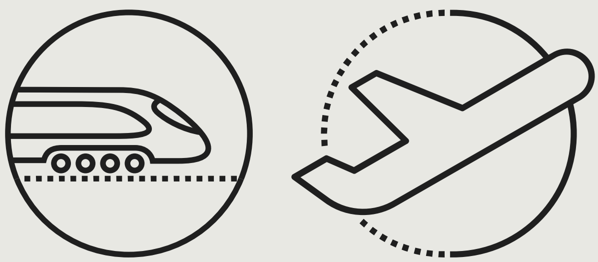


INTERMODAL TRAVEL

While not as prominent as 'shorter waiting times', the ability to use a single booking ticket for a whole journey is another key improvement that passengers want to see within the overall travel process (40%). This is particularly noticeable for frequent flyers (44%) and those flying for business purposes (43%).

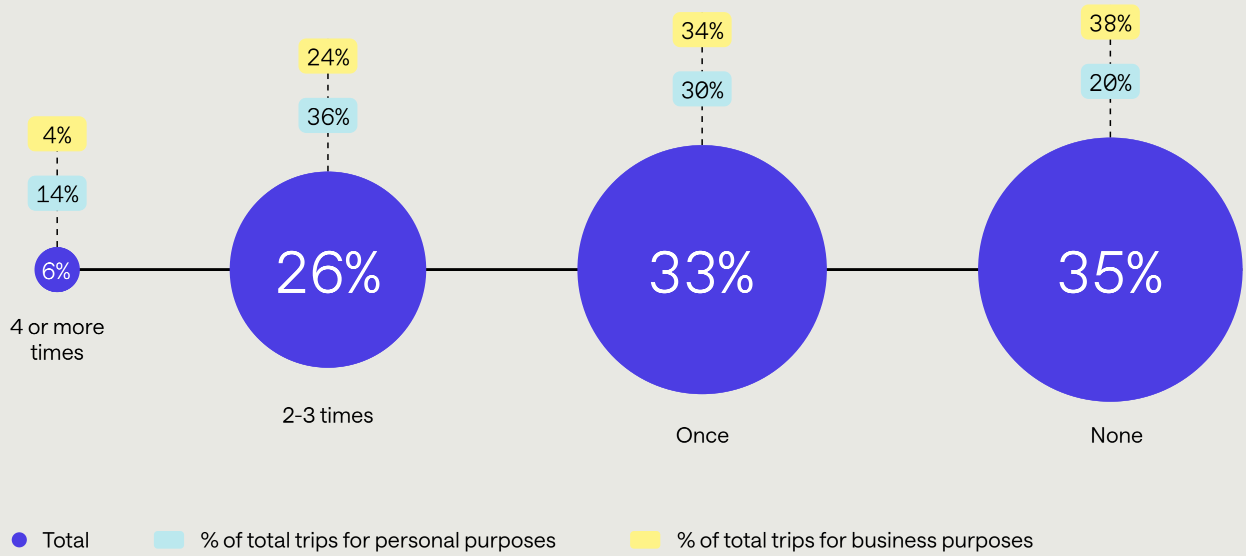
What are the 2 most important factors that you would like to see improved in the travel process overall?





Most travellers (65%) plan to book at least one intermodal trip in the next year. Intermodal trips are more popular among younger passengers, and passengers who are traveling for business.

How often in the next 12 months do you expect to book any intermodal trips?



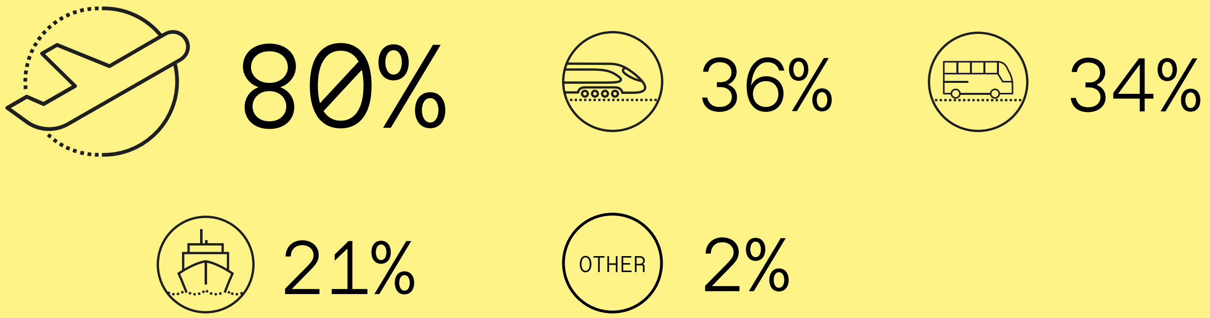
Most intermodal trips involve passengers taking a flight (80%), followed by trains or buses – likely as a form of transit from the airport to the final destination.

In the context of intermodal travel, most passengers build their travel itinerary via a travel agent (physical and/or online) – significantly more so if the purpose of the trip is business (54% vs 44% of those travelling for personal reasons).

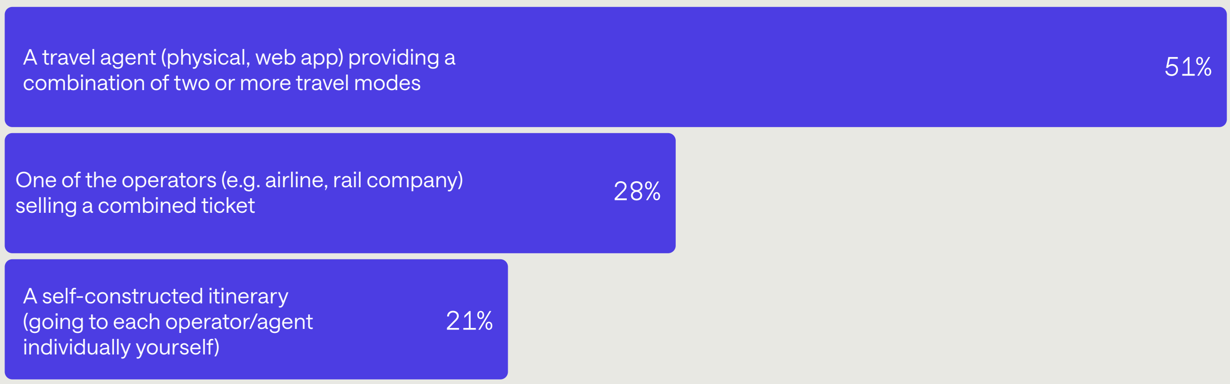
Travel agents are also preferred by younger travelers, while older travelers choose to construct their own itinerary. Significantly more passengers flying for leisure (27% vs 18% of travelers for business), and in Economy class (29% vs 22% of travelers in a premium class) also opt to make their own itinerary.

The overall predominance of booking via travel agents suggests either a lack of availability to book intermodally through operators themselves, or a lack of awareness of the opportunities that do exist.

Thinking about your latest intermodal trip, which of the following modes of transportation did you use?



When booking an intermodal trip, which of the following options best represents how you build your itinerary?



BAGGAGE SOLUTIONS

While there are certain factors that cause travelers anxiety when booking a trip, mishandled luggage is not the primary one, with only 9% mentioning this.

SITA's 2024 Baggage report suggests that this lack of anxiety is well-founded, with the rates of mishandling having dropped by 9.2% since 2022 (SITA 2024 Baggage IT Insights Report) – despite record passenger numbers.

While this is the case, carrying luggage is still a key issue when it comes to intermodal travel. Over a quarter of intermodal travelers say 'being able to drop your baggage at your journey start point and have it arrive at your end destination' would be the most useful 'smart intermodal' solution to them.

Respondents' preference for luggage collection locations (if such a solution existed) is divided. Similar numbers say they would want it collected from the first terminal (48%) as from their home or hotel (46%).

Most important, only 6% said they wouldn't be interested in such a solution at all. It shows that passengers see the value of having off-airport solutions for baggage collection and drop off.

Which of the following intermodal 'smart' solutions would be most useful to you?

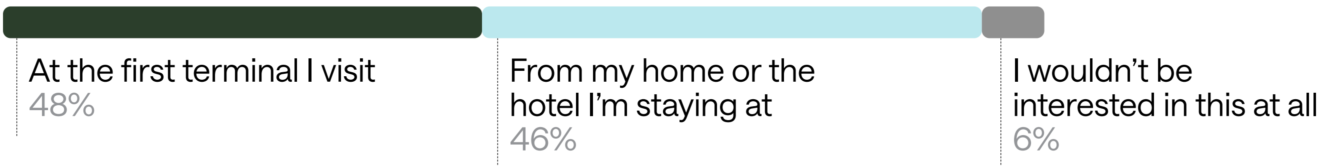
Travel operators co-ordinating when disruptions occur and managing changes for you	31%
Being able to drop your baggage at your journey start point and having it arrive at your destination	28%
Live travel communications at every step of the journey, including how each mode of transport interacts with eachother	21%
Having your entire travel experience detailed within a single app	19%

At the same time, trying out new technology can bring anxiety to passengers.

As such, offering the option to track luggage on mobile or via a digital ID will be key in instilling confidence in passengers to use smart luggage solutions. Given that the majority of mishandling cases (77% - SITA 2024 Baggage IT Insights Report) are due to delays, the ability to track luggage would alleviate anxiety surrounding this.

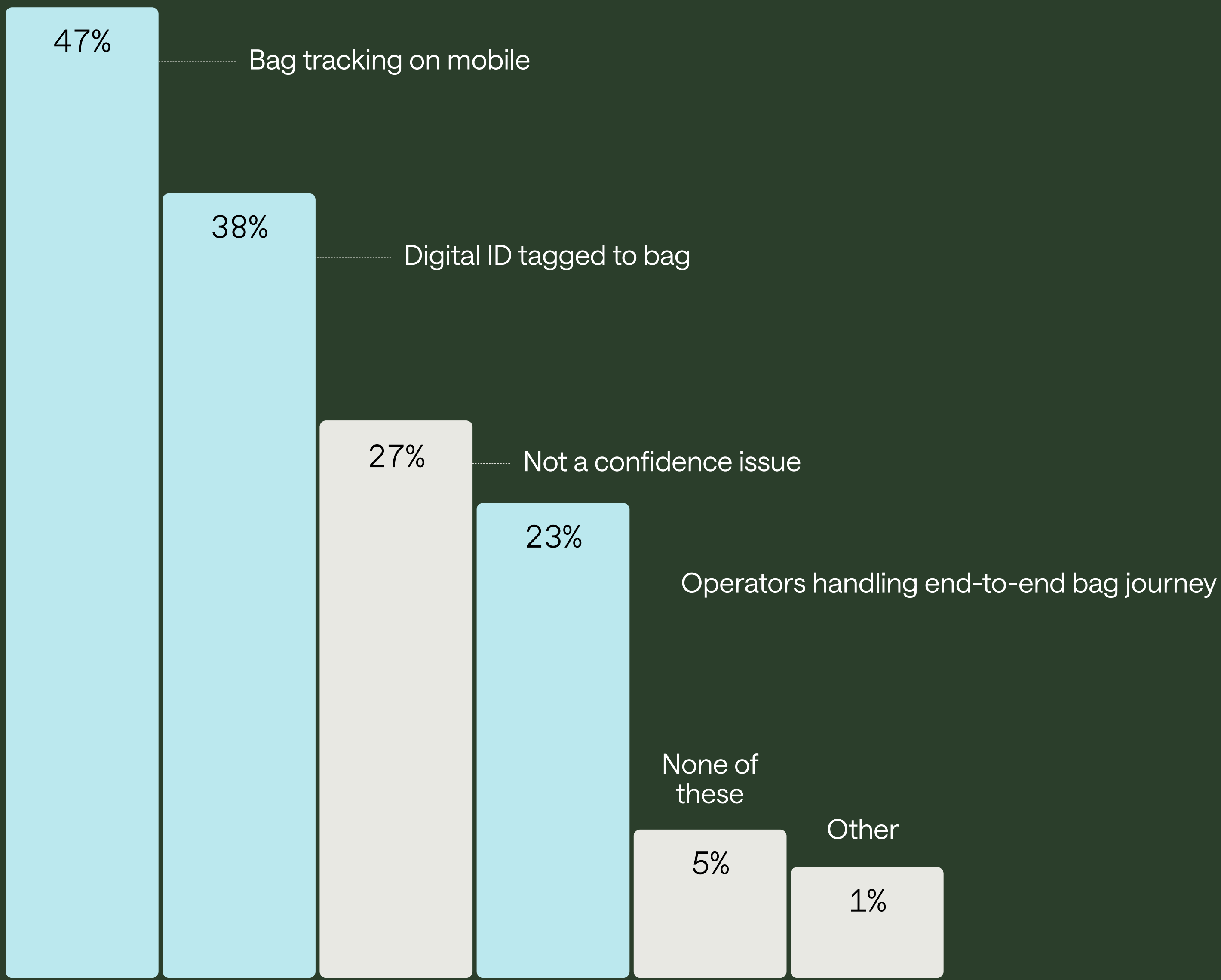
Mobile solutions could also have an impact on travelers' confidence to check bags when they are flying. When asked which solutions would increase confidence, only 32% said either 'none' or 'not a confidence issue'. It suggests that two thirds (68%) would feel more confident if new technology and solutions were made available to them.

If end-to-end baggage handling solutions existed, where would you want it to be initially collected from?



The ‘bag tracking on mobile’ solution offers the highest potential confidence boost (47%), followed by ‘Digital ID tagged to bag’ then ‘visible by mobile app’ (38%).

Which, if any, of the following options would make you more confident to check-in a bag while traveling?



FLIGHT FREQUENCY

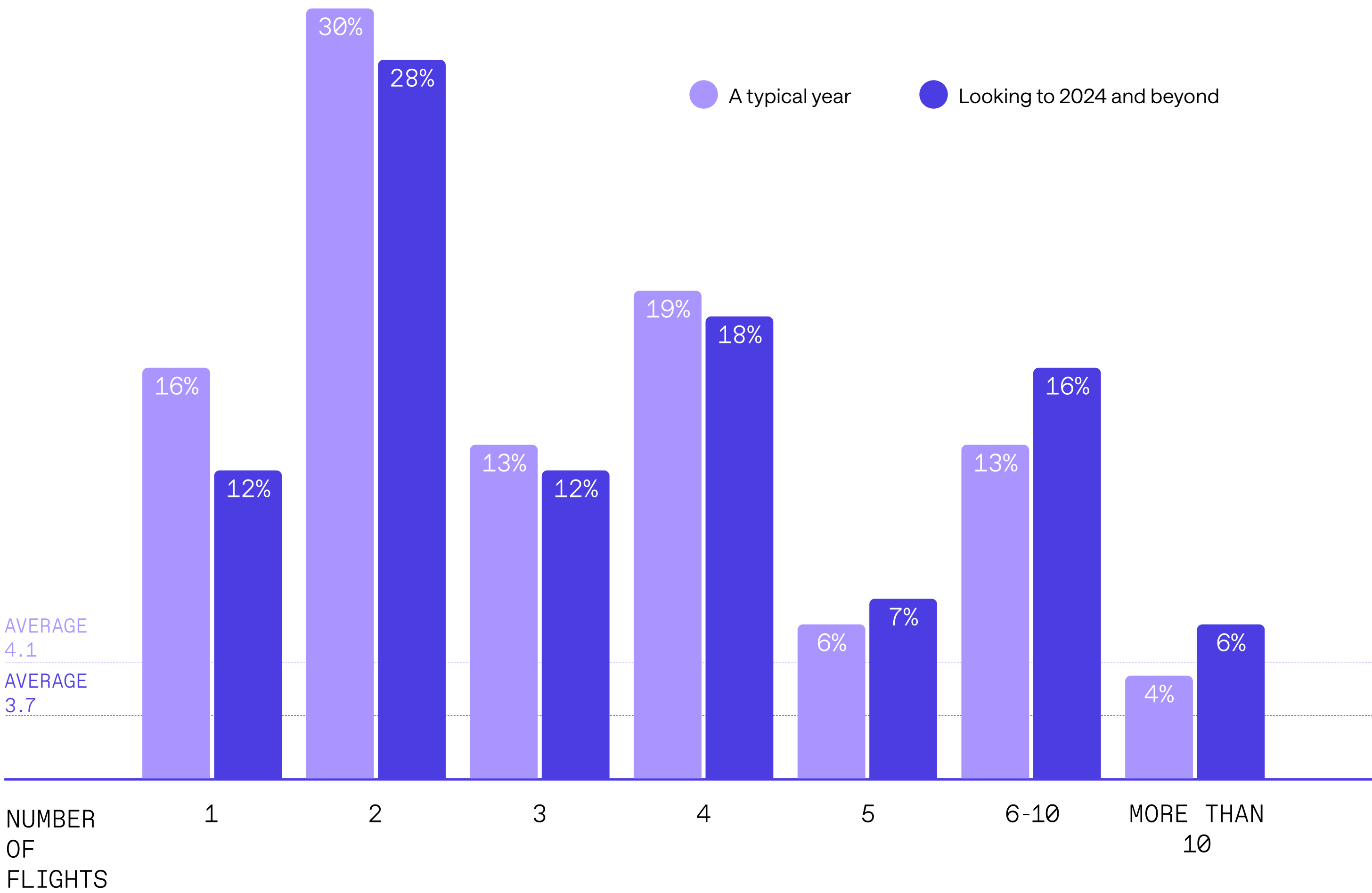
Research from SITA shows that while the average number of flights taken has dropped for the less frequent travelers, avid travelers taking 5 flights or above are keen to travel even more.

Passenger numbers in the aviation sector are at an all-time high, with predictions suggesting further growth in the coming years. In SITA's analysis, more detail is revealed around how those flights split out by demographics – looking at who are likely to be 'frequent flyers' taking up a disproportionate number of those flights.

From a gender perspective, the figures are relatively even with slightly more male travelers (19%) being frequent flyers than the 15% of female travelers. When it comes to age however, we see the 25-44 bracket being the most likely to take 6 or more flights in a year.

One trend seen over the last few years is the decreasing proportion of flights for business travel. Since 2022, the proportion of flights that were for personal reasons was 72%, but this has increased by 11% up to 83% in 2024. This is line with business travel changing after the pandemic, with many businesses taking an online-first approach, using remote collaboration tools, and shifting the wider culture towards more purposeful and sustainable travel policies.

Flight frequency in a typical year vs 2024 onwards

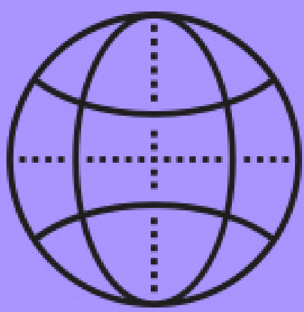


Methodology

2024 Passenger IT Insights

Fieldwork for the 17th edition of the Passenger IT Insights was conducted globally in Q2 2024. The key findings are based on an online survey of 7317 respondents from 25 countries across the Americas, Asia, Europe, Middle East and Africa.

The number of respondents by country is relative to the amount of passenger traffic for each country, based on data from Airports Council International (ACI). Collectively, the respondents represent over 76% of global passenger traffic. Survey respondents were selected based on having at least one flight in the previous five months. The countries included were: Brazil, Canada, Mexico, United States, Australia, China, India, Indonesia, Japan, Republic of Korea, Vietnam, Singapore, France, Germany, Spain, Italy, Netherlands, UK, Nigeria, South Africa, Saudi Arabia, UAE, Turkey, Egypt and Azerbaijan.



Registered Office

SITA SC
2 Avenue des Olympiades
B-1140 Brussels
Belgium
Tel: +32 (0) 2 745 0517

Geographic Offices

Americas
600 Galleria Parkway
Suite 1000
Atlanta, GA 30339
USA
Tel: +1 770 850 4500

Asia Pacific
11 Loyang Way
Singapore 508723
Republic of Singapore
Tel: +65 6545 3711

Europe
Chemin de Blandonnet 10
1214 Vernier
Switzerland
Tel: +41 22 747 6001

Middle East & Africa
Holcom Building
Cornich Al Nahr
Beirut - Lebanon
Tel: +961 1 637300

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