

SITA 2026 BAGGAGE IT INSIGHTS



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Featured case studies



Our data is drawn from SITA WorldTracer®, the global baggage automation system connecting 500 airlines and 2,800 airports, along with research by an external partner and industry organizations. SITA WorldTracer® is a registered trademark of SITA in various jurisdictions worldwide.

Executive Summary

The true cost of a lost bag

Baggage performance is improving, but the costs still tell an urgent story. Even as mishandling rates decline, our new SITA benchmark shows that every mishandled bag costs airlines \$260 on average.

When you consider that net profit per passenger averages \$8, that's a dire picture. To put it another way, every mishandled bag can equal the profit from more than 30 seats sold. Just five mishandled bags can erase the profit from an entire flight.

Let's also look at the bigger picture. The total cost of mishandled bags is \$6.3 billion. Compare that with the airline industry's total 2025 annual profit, estimated at \$41 billion. In other words, mishandled baggage alone is equivalent to 15% of profit. It's one of the largest operational drains on profitability in our industry, which is already defined by thin margins and currently burdened with sky-high fuel costs and persistent geopolitical uncertainty.

There's another cost we must consider. Trust. Passengers expect their bags to arrive on time, especially in a world where their parcels are delivered within hours, with instant updates on their phones. They want the same speedy service, with the same digital tools, when they fly.

What are we doing to bring costs down? What more can we do?

First, it's about sharing data across everyone and every system involved in the journey, in real time. Then, it's about using that data to predict, prevent and solve issues. When airlines, airports, ground handlers and tech partners like Apple, Google and SITA work together, we don't just connect data. We make it work for us. With AI and machine learning-powered tools, we can get a clearer picture of every bag and its location. Such tools also allow us to identify risks and get real-time recommendations to mitigate the effects of delays. Baggage can be redirected onto a new flight automatically. We can keep passengers informed, for their peace of mind.

The industry can do more to tackle this \$6.3 billion burden. We must transform baggage handling into a data-driven, predictive process, at scale. Then we'll be on our way to efficient baggage management and a stellar passenger experience. And that's priceless.



David Lavorel
CEO
SITA

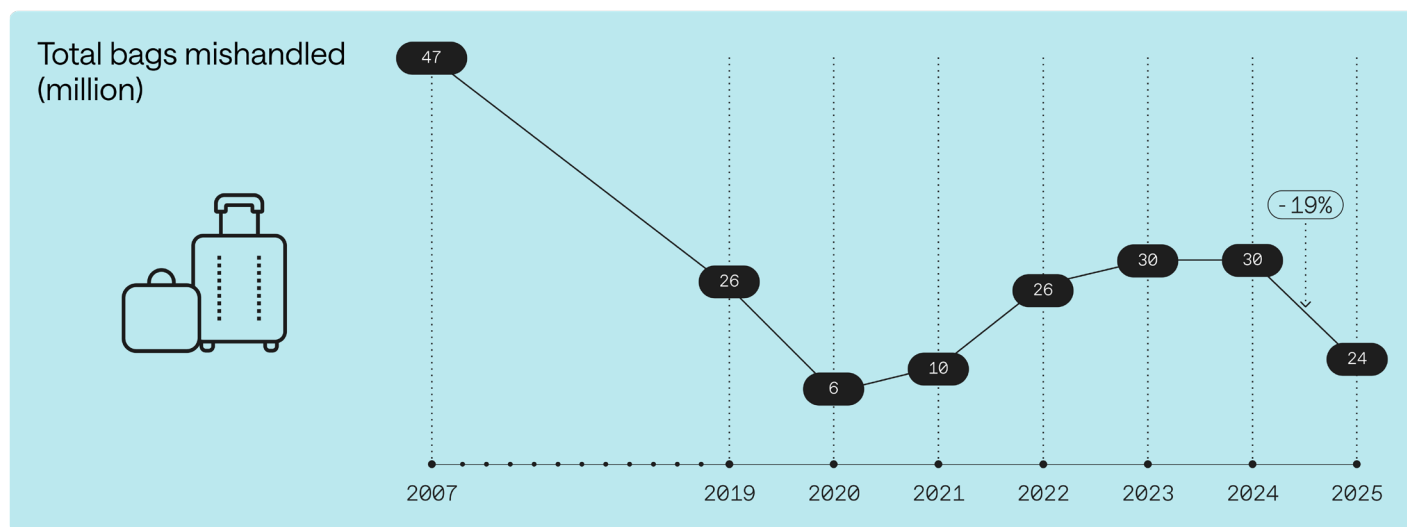
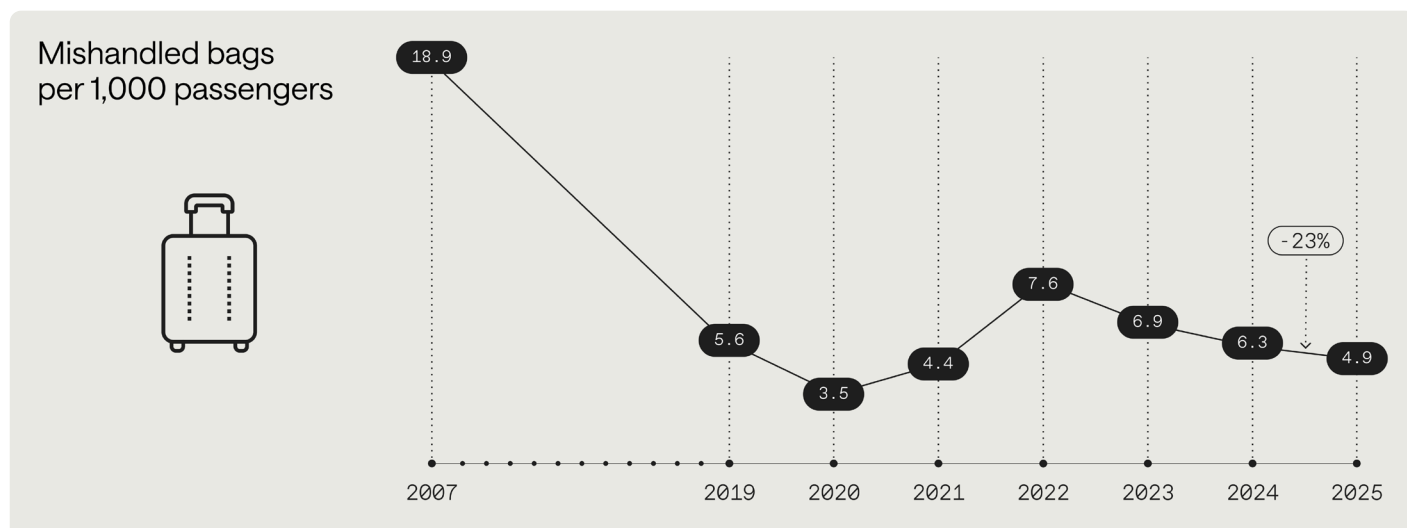
Mishandling rates fall

Mishandling rates and total mishandled bag volumes fell 23% and 19% respectively in 2025, to the lowest numbers we've seen apart from the pandemic period.

This improvement is driven by connected data and visibility, enabled by:

- Increased tracking at check-in, loading, transfer and arrival, in line with IATA Resolution 753
- Automated sorting and transfer systems, robotics and routing
- Individual carrier systems and early baggage storage
- Computer vision and machine learning-driven biometric baggage, or RFID tagging
- AI-driven models that use historical and real-time data to identify risks and recommend action
- Passenger-facing technology such as AirTags integration and real-time updates

Adoption of these solutions varies greatly across the industry. Airlines see the potential that AI offers: 73% have AI among their IT investment priorities, according to our 2025 Air Transport IT Insights report.



The cost to the industry

Mishandled bag rates and overall volume are declining, and the total cost has fallen accordingly, by 17%. This is an especially positive trend when we see passenger numbers steadily rising.

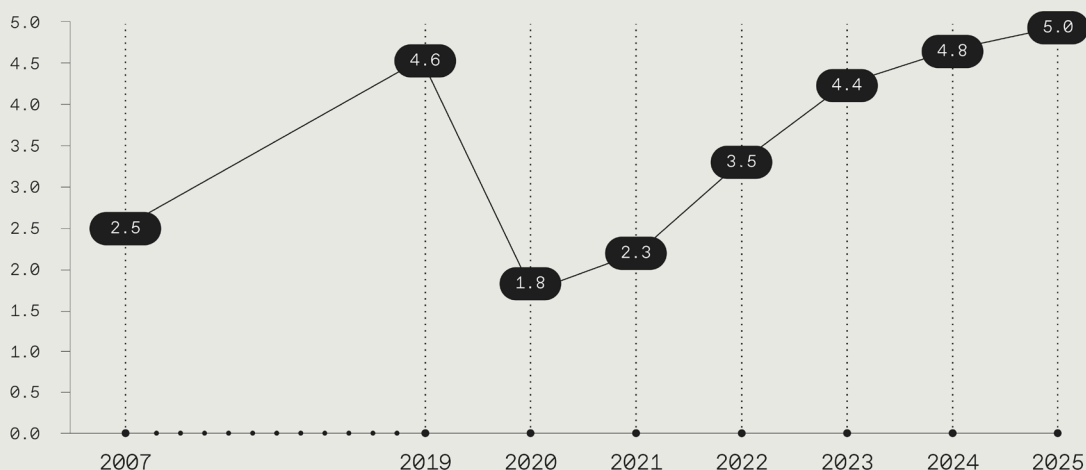
Nevertheless, the \$6.3 billion price tag is a big one.

That's why we at SITA chose to develop a new benchmark for cost per bag, to help the industry assess ROI and pricing. With this report, SITA's research result replaces the widely cited \$150, which is outdated and lacks transparency, with a more robust, data-driven model. SITA's new research, based on a global survey of 115 airline (81%) and ground handler (19%) professionals, provides a clearer, more current view of mishandling costs.

Mishandled bags
total costs (billion)



Total passengers
(billion)



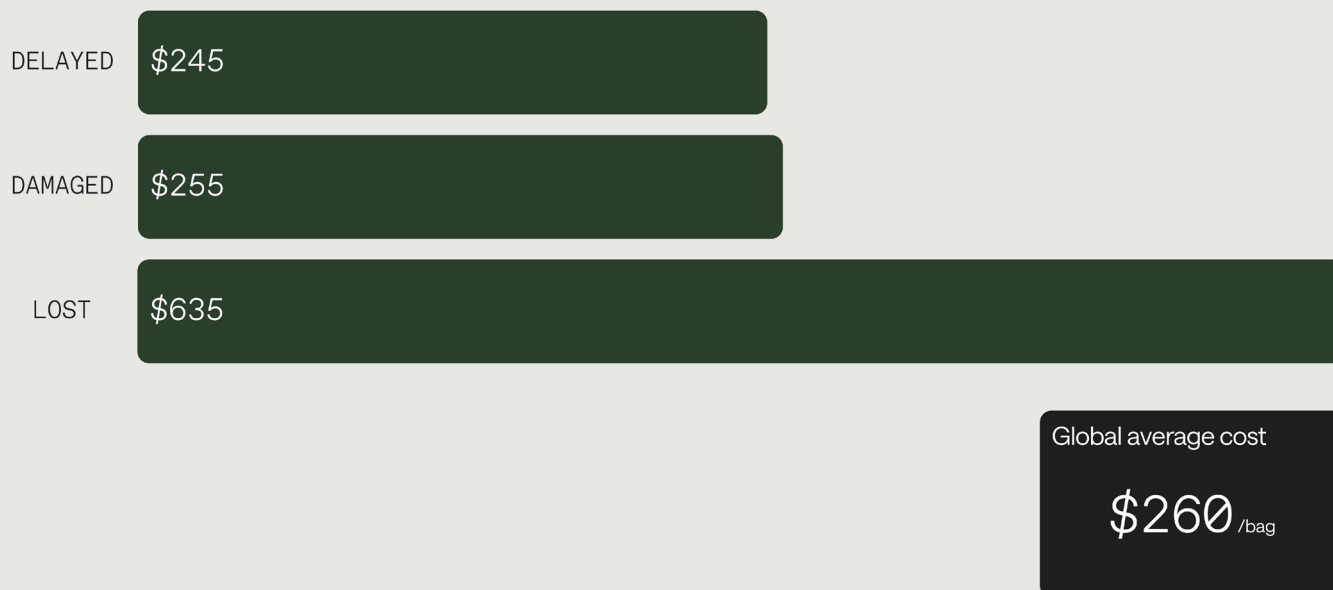
Cost per bag: the new benchmark

Our research puts the global average cost per mishandled bag at \$260. A delayed bag costs \$245, a damaged bag \$255. A lost bag? \$635. In other words, a single delayed bag could wipe out the revenue from a single ticket. Or erase the profit on multiple seats on a single flight. Not to mention the erosion of passenger trust.

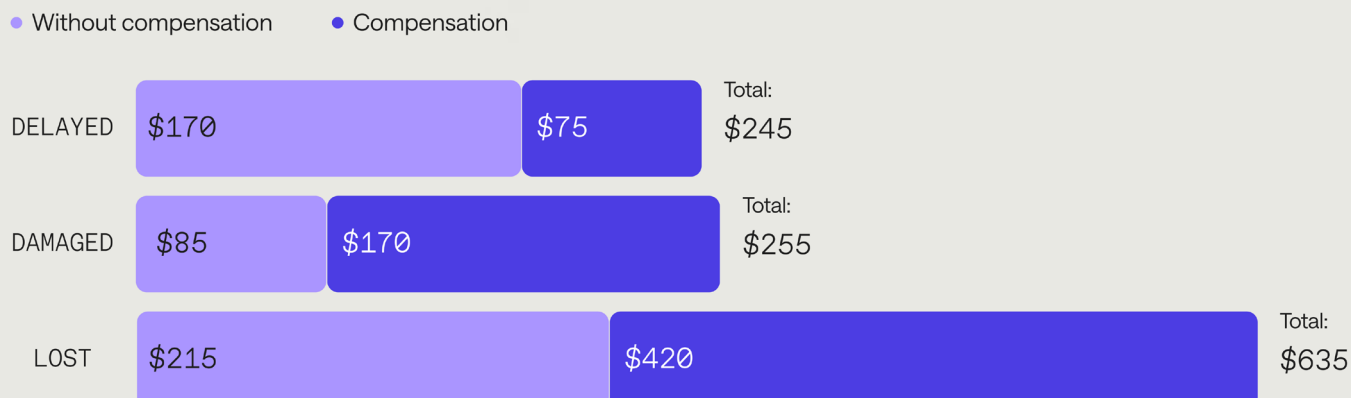
A deeper look into where the cost is coming from can move us toward the right solutions. In the case of lost and damaged bags, up to 70% of the cost stems from compensation payouts. Here, preventing incidents is key to cost reduction. For delayed bags, around 70% is linked to operational activities such as recovery, rerouting and delivery. Here, fixing processes will trim operational expenses.

Meanwhile, passenger expectations are higher than ever. They expect their bags to arrive on time, safe and sound. They're increasingly open to digital solutions across their journeys. According to the SITA 2025 Passenger IT Insights Report, more than half of passengers feel confident using a service run by their airline. Another 37% trust an airport solution. Only 20% trust an unaffiliated third party.

Cost per bag type



The origin of the cost per bag



Building trust, cutting costs

The best baggage experience is when passengers never have to think about it. That's what we're striving for, for every passenger and every journey. Unfortunately, there's still a disconnect between passenger expectations and service delivery. A \$6.3 billion gap.

But we can close that. We have data from passengers using Apple AirTags or Google Find Hub. We can track baggage in real time. We're able to automate the redirection of baggage onto a new flight.

These are just a few ways in which we're improving the passenger experience, with excellent results. The integration of Apple AirTag and Find My Share Item Location technologies with SITA WorldTracer reduced "permanently lost luggage" by 90%.

Passengers want timely updates on the status of their bag, for peace of mind. The SITA 2025 Passenger IT Insights Report showed that they're also interested in paying for better service. A vast majority, 78%, say they'd pay for baggage pickup at their home or hotel.

Such intermodal and off-airport solutions are key to easing passenger anxiety with regard to baggage. With Malpensa Airport during the 2026 Milano Cortina Olympic Games, we enabled smooth handling of athletes' skis and snowboards by digitizing and tracking them end to end with real-time visibility. We're also working with airports to enable passengers to leave bags in their cars and avoid queues. Soon, passengers will be able to tag their bags at home. We also envision priority routing, where bags may not even fly on the same aircraft as the passenger from the start.

Ultimately, baggage is evolving into a digital platform, with a digital bag identity, an intelligent layer and full ecosystem integration. When we've taken those steps across the industry, we'll be able to see every bag in real time, predict problems before they happen and turn baggage into a service.

Passengers will get their bag at their destination, without having to think about it. And the industry won't have to think about the cost.



Nicole Hogg

Portfolio Director Baggage
SITA



IATA: Advancing baggage efficiency and passenger satisfaction

Baggage tracking has been a key industry priority for over a decade. Recent IATA data shows that global adoption has now surpassed the 50% mark, highlighting both the progress made and significant opportunity that remains to further strengthen operational performance through wider implementation. For airlines, the ability to demonstrate baggage acquisition and custody changes has proven to be one of the most effective strategies for reducing mishandling. Baggage performance directly influences passenger satisfaction. The 2025 IATA Global Passenger Survey reinforces the

importance of continued focus in this area, with one in five passengers reporting a baggage mishandling experience. These insights provide a clear mandate for the industry to accelerate improvements that deliver tangible benefits to customers.

To support this journey, IATA continues to work closely with its members through annual implementation monitoring and targeted guidance, with the shared objective of achieving full compliance with Resolution 753 by 2027.

Looking ahead, a major milestone is anticipated in 2026 with the introduction of the IATA Baggage Community System. Leveraging modern baggage messaging standards, this initiative is expected to lower implementation costs while enabling real time Resolution 753 compliance tracking, marking an important step forward in advancing baggage transparency, efficiency and passenger confidence.



Getnet Taye, PhD

Senior Manager, Global
Baggage Operations &
Innovation

IATA



Breaking down the cost



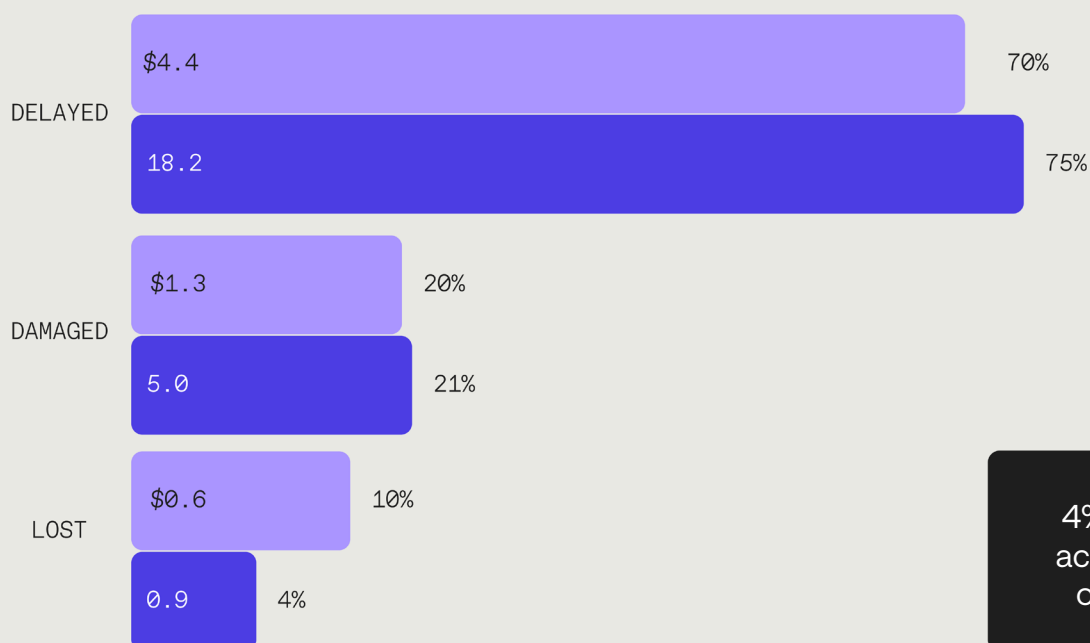
The nature of mishandled bag costs

Our research shows that delayed bags account for 70% of total costs (about \$4.4 billion) and 75% of volume (18.2 million). At the other end of the spectrum, lost bags represent just 4% of cases but a disproportionate 10% of total costs.

Delays are a scale issue. They're the biggest driver of mishandled bag volume, and therefore of customer dissatisfaction. Damaged bags are cost-intensive, contributing consistently to both cost and dissatisfaction. Lost bags are rare but extremely costly, with significant financial and reputational impact.

Cost and volume by mishandled bag type

● Total cost (billion) ● Total mishandled bags (million)



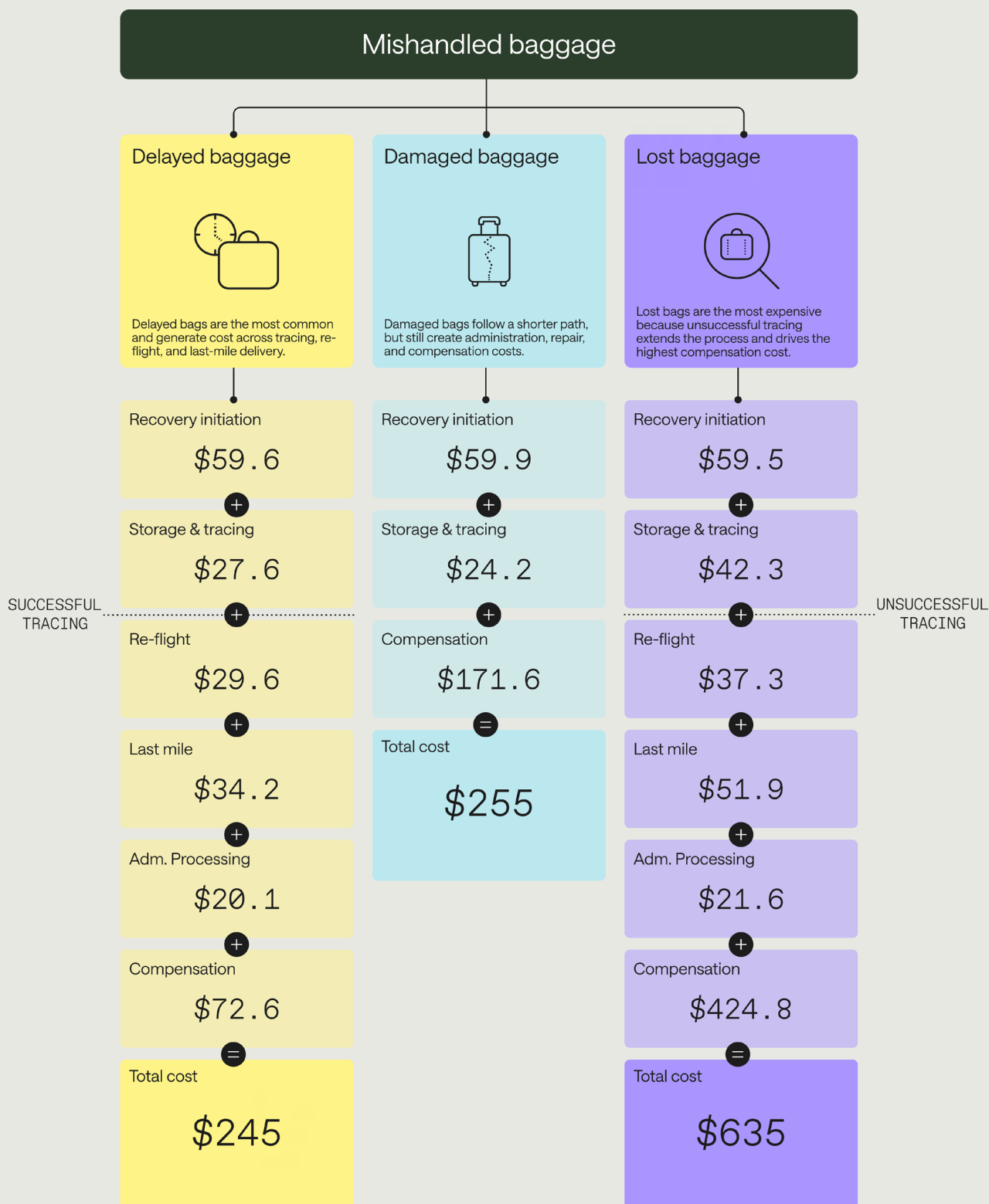
4% of lost bags account for 10% of total costs.

Source: External partner commissioned by SITA. Bag quantity is derived from SITA WorldTracer data projected to a global view using IATA passenger data.

How costs build along the way

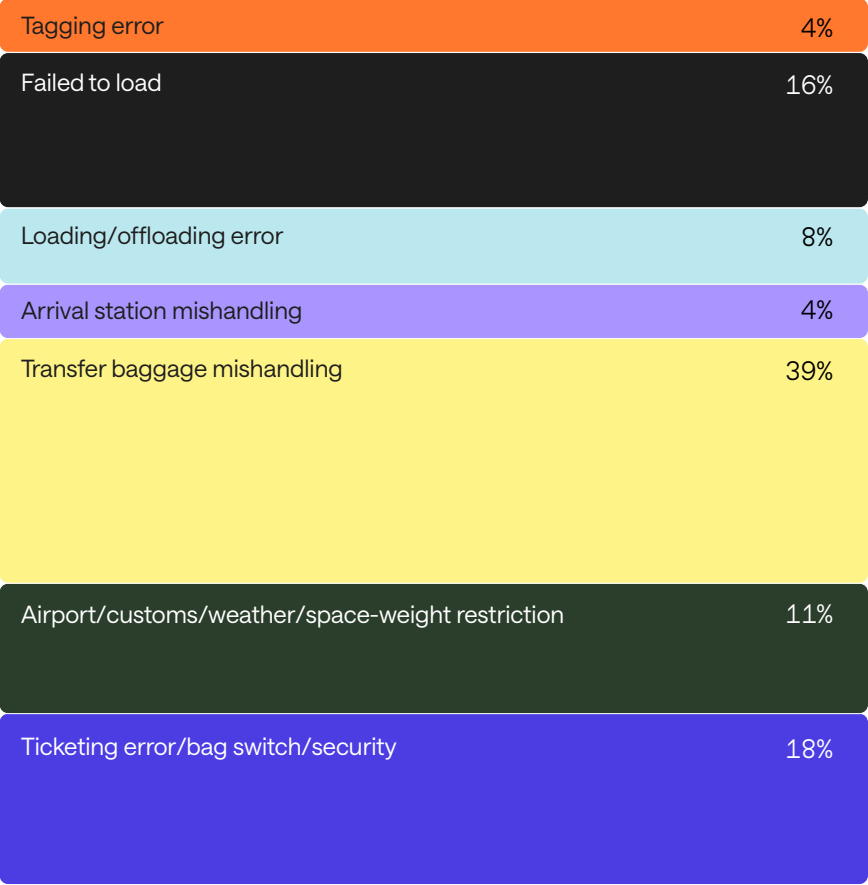
Delayed baggage has a long road. Even after it's found, reflighting can take a number of steps, as does delivery. Then compensation. Every step incurs a cost. Lost baggage, where tracing and return to the passenger was unsuccessful, also carry a cost of transport, storage and disposal. Damaged baggage has the shortest road, but compensation costs bring the total cost to almost equal to that of a delayed bag.

The cost journey



What drives delays?

Sources of delays



We've seen that delayed baggage is the biggest driver of mishandled bag volume. Delays happen at every step of the handling process, from tagging to ticketing.

The core reason for delays is transfers, i.e. when a bag doesn't make it onto a connecting flight. Transfer issues have improved slightly, accounting for 39% of mishandling in 2025, down from 41% in 2024.

Transfer issues are being addressed through a range of tools that improve coordination, visibility, and speed of recovery. A shared data platform strengthens collaboration across stakeholders, while end-to-end tracking and enhanced bag identification ("bag biometrics") provide a clearer, more consistent view of each bag's journey. Automation, such as automatic reflighting, accelerates return to passengers and passenger-provided data further enhances transparency while giving travelers greater control and peace of mind. Let's look at how Thai Airways tackled delays in baggage processing.





Case study: Thai Airways and SITA slash bag processing time to seconds

Thai Airways International understood that delays in processing bags weren't just an operational hiccup. The delays risked damaging customer trust, slowing their busy Bangkok hub and putting strain on staff.

Just after the pandemic, baggage reconciliation was still managed on paper. Arrivals and onward connections were handled manually, while staff had to scan, validate, print and attach paper rush tags for every mishandled bag.

As passenger numbers rose, the cracks widened. Passengers were frustrated, and the airline faced mounting costs.

The solution? SITA Bag Manager. Thai Airways implemented it across nine domestic airports, making the process fully automated and digital. Furthermore, at Bangkok (BKK), Thai Airways introduced SITA WorldTracer Auto Reflight to automatically validate passenger and flight data, efficiently reassign mishandled or missed bags to onward flights and eliminate the need for paper rush tags.

The transformation was immediate and measurable. SITA WorldTracer Auto Reflight reduced a three-minute task to just one second per bag, saving hours of staff time every day. Lost baggage events were managed faster, queues at counters eased and passengers enjoyed smoother connections.

The benefits extended beyond speed. By eliminating paper rush tags, Thai Airways reduced waste. The system also recorded the reason for each delay, giving the airline unprecedented visibility into mishandling trends and costs.

With SITA technology, Thai Airways was able to save time, reduce costs, make decisions that could further boost efficiency and improve the passenger experience.

Investing in solutions



Visibility yields insights

Baggage operations do not lack data. They lack visibility across the ecosystem, and the ability to turn that data into timely insights. When information flows smoothly through the handling process, operations shift from reactive problem-solving toward prevention.

As our 2025 Air Transport IT Insights report illustrated, decisions depend on the availability, accuracy and integration of data across the actors in baggage handling. Airlines are responding accordingly: 83% prioritize data-driven decision-making across their operations, and 73% plan to invest in AI over the next two years.

When it comes to baggage handling, this is translating into the adoption of automation and AI-enhanced solutions to improve this flow, from automated bag-drop to real-time baggage status exchange.

Let's look into current and planned investments. The biggest focus through 2027 is improving data flow. Half of airlines plan to provide passengers with real-time baggage status updates, helping build trust, while 40% are extending the same visibility to operational staff.



Investing in technology

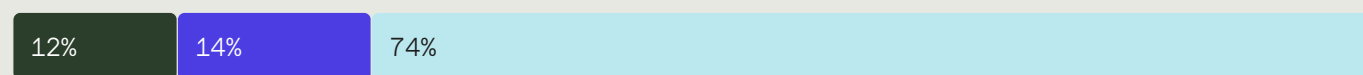
The next biggest investment target for airlines is biometric and touchless bag-drop. Using facial recognition and automated systems, passengers can check in their luggage more quickly and with greater accuracy. This speeds up processing and links each bag to its owner from the start. Every step is digitally recorded.

Airlines investments & plans

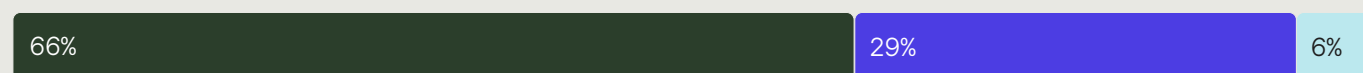
● Implemented ● By the end of 2027 ● No plans

Self-bag print

Printing bag-tags at home

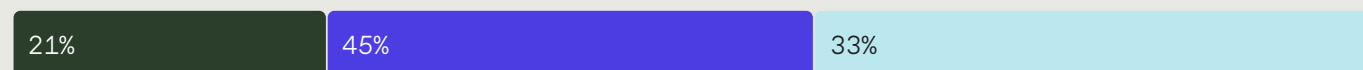


Printing bag-tags at airport

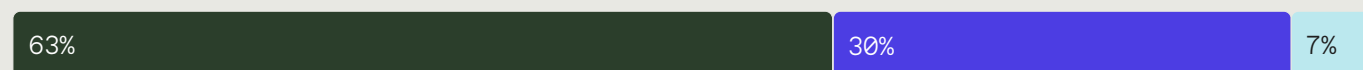


Self-bag drop

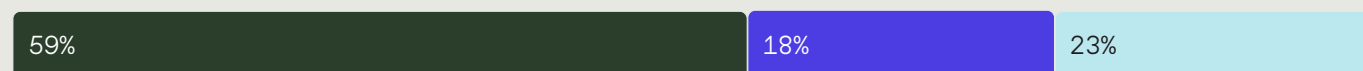
Biometric & touchless bag-drop



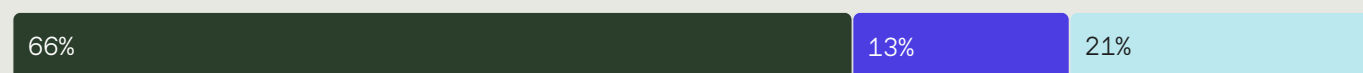
Automated bag-drop machines



Bag tag printing kiosks

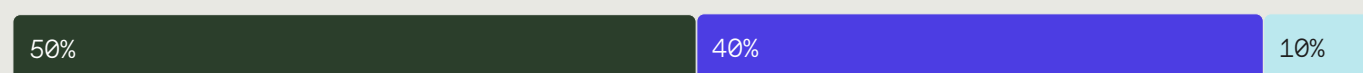


Assisted bag-drop

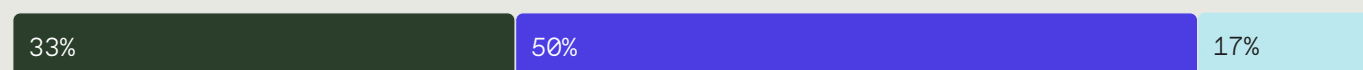


Bag Tracking

Real-time baggage status information for operational staff



Real-time baggage status information directly for passengers



The proactive power of AI

Artificial intelligence is taking baggage handling beyond visibility into real-time operational decision-making. AI-driven tools:

- Dynamically reroute bags when flights change, belts congest, or equipment fails
- Drive robotic arms that move, load and unload bags
- Optimize conveyor flow and speed
- Predict failures and automatically initiate repair
- Estimate arrival times, flagging issues in real time
- Alert staff and passengers to issues

At its core, AI is about prediction. By analyzing past performance, AI can identify patterns, anticipate disruptions and forecast baggage volume. Drawing on data, it can help operators act earlier and make smarter decisions.

The result is a shift from reactive, labor-intensive operations to proactive and preventive decision-making. The benefits go even beyond cost savings, improving reliability, scalability and passenger trust. This shift will turn baggage handling into a potential competitive advantage.



Airlines for America: Deploying new equipment and AI-powered tools

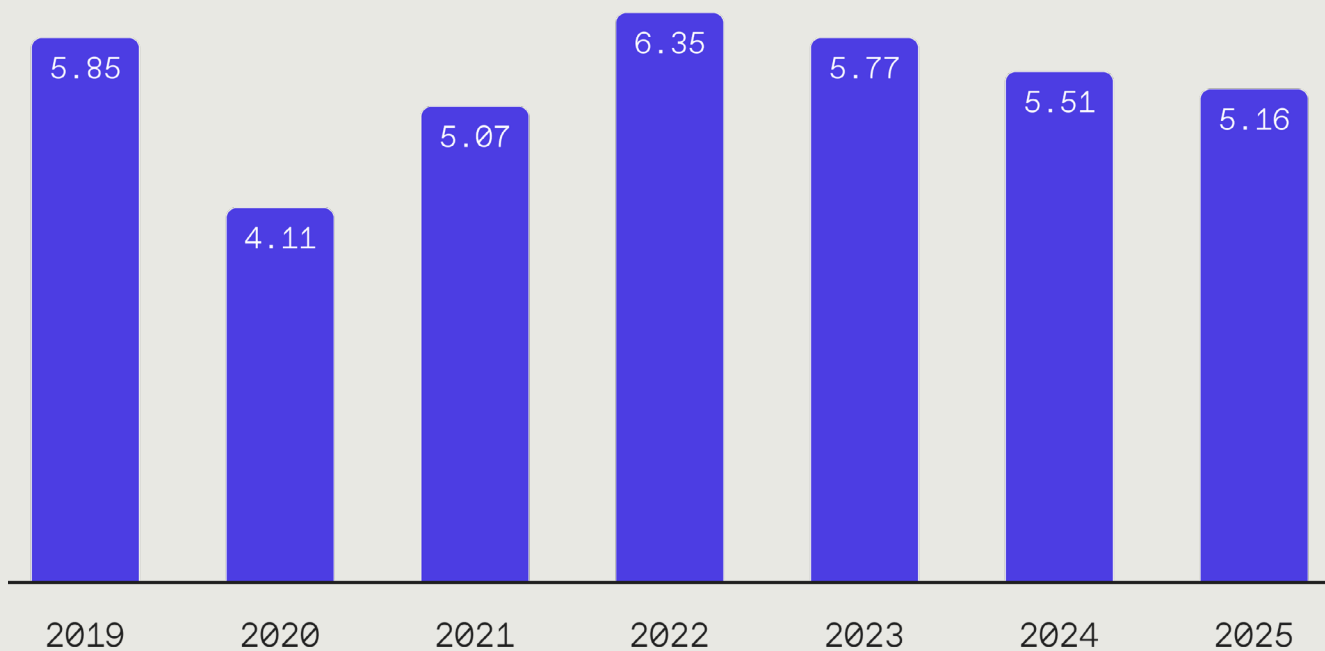
In 2025, U.S. airline baggage-handling performance improved for the third consecutive year, with the rate of mishandled bags falling 6.3% to 5.16 per thousand checked bags boarded. In addition to upgrading the physical infrastructure to move baggage at key hubs, numerous U.S. airlines are deploying state-of-the-art ground support equipment and AI-enhanced automation to ensure that bags arrive on time. AI-powered platforms use real-time flight data, bag locations and connection minutes to create optimized routes for each driver, prioritizing bags with the tightest connections. Additionally, airlines are upgrading mobile bag-tracking features that show real-time locations throughout the journey.



John Heimlich

Chief Economist
Airlines for America

Mishandled bags per 1,000 bags enplaned (U.S.)



Source: DOT Air Travel Consumer Report

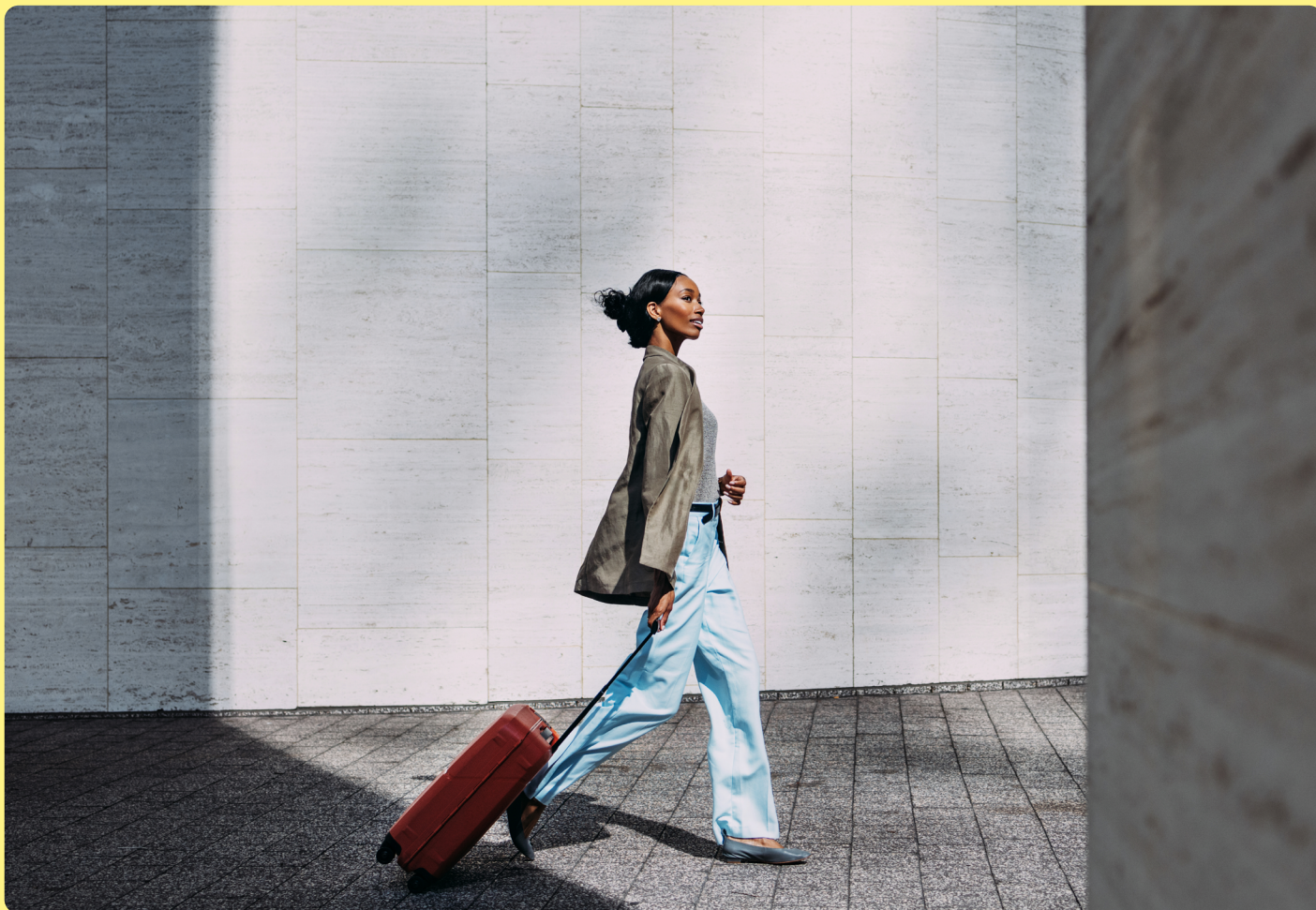
Driven by data from every source

Airlines and their tech partners are connecting data across every step of a bag's journey. That includes input from passengers, a key tool to speed recovery as well as maintain trust.

When passengers put tags in their luggage and share that location data, airlines gain a more accurate view of each bag's movement. At the same time, when passengers receive real-time updates, they gain control and confidence.

Let's look at two recent examples that highlight this shift. Apple has significantly reduced lost luggage by linking passenger-provided data with tracking systems. Google, too, is taking steps toward more connected and transparent baggage recovery.





Case study: Apple & SITA reduce lost luggage by 90%

The integration of Apple AirTag and Find My Share Item Location technologies with SITA WorldTracer reduced “permanently lost luggage” by 90%. That’s according to data from the first year of our collaboration.

Connecting Apple technology with SITA’s global reach in aviation enables airlines to act earlier to recover mishandled bags. It also gives travelers visibility and a role in recovery. This partnership delivers lower costs for airlines and greater peace of mind for passengers. A double win. Passengers using an Apple AirTag or a Find My network accessory can use Share Item Location to temporarily and securely share their bag’s location with their airline through SITA WorldTracer, the global system airlines use to find and reconcile delayed and mishandled baggage. This supplies additional high-quality data to airlines, easing recovery.

While most bags are successfully returned to the passenger, a small percentage become truly lost. The cost of lost bags, as this report shows, averages \$635. For bags with an Apple AirTag or Find My network accessory, the number of truly lost bags decreased by 90% when location sharing is enabled through WorldTracer. This improvement gives passengers a far higher chance of being reunited with their bags and reduces the cost to airlines of lost bags.

The SITA - Apple partnership is reuniting passengers with their bags faster. Airlines using Apple Find My and Share Item Location integration in WorldTracer have seen a 26% reduction in recovery time of delayed bags.

Adoption is growing, with 29 airlines now using the Apple Find My integration in WorldTracer as part of their baggage recovery process.

Connecting consumer technology with aviation infrastructure leads to a more predictable process, delivering lower costs for airlines and a better experience for passengers. This is the kind of shared innovation that moves the industry forward.



Case study: Google and SITA find and return bags faster, together

Passengers are increasingly willing and able to help their baggage find its way, by sharing their bag location through their phones. Google chose to integrate its new Find Hub share item location feature with SITA WorldTracer, the global system airlines use to find and reconcile delayed and mishandled baggage. It means the tools to locate missing bags are more interconnected and effective than ever.

Passenger location sharing adds valuable data to the airport scans and airline-to-airline data exchanges already in place. The integration of Find Hub means airline teams can view the information provided by the passenger directly within SITA WorldTracer. That helps them narrow search areas and prioritize cases when a bag does not arrive as expected, getting bags back to their owners faster.

The process remains fully controlled by the passenger, ensuring privacy. If a bag is delayed, the traveler can generate a secure link in Find Hub and provide it to the airline. Sharing can be stopped at any time. Links expire automatically. Location data is encrypted, and only the passenger decides who can access it and for how long.

With the SITA-Google partnership, SITA WorldTracer is enabling secure location sharing from yet another major consumer platform, supporting a connected and transparent approach to baggage recovery at global scale. WorldTracer is used by more than 500 airlines and ground handlers across approximately 2,800 airports worldwide.

The integration also reflects a broader industry move toward more open and secure data sharing across the travel ecosystem. Broader and more effective data exchange is fast becoming central to improving operational performance and passenger experience.

Global challenge, regional realities

While our new data point this year puts the global average cost per mishandled bag at \$260, a closer look shows clear regional differences in both mishandling rates and related costs. Regions leading in technology adoption tend to achieve lower rates, and, to some extent, lower costs.

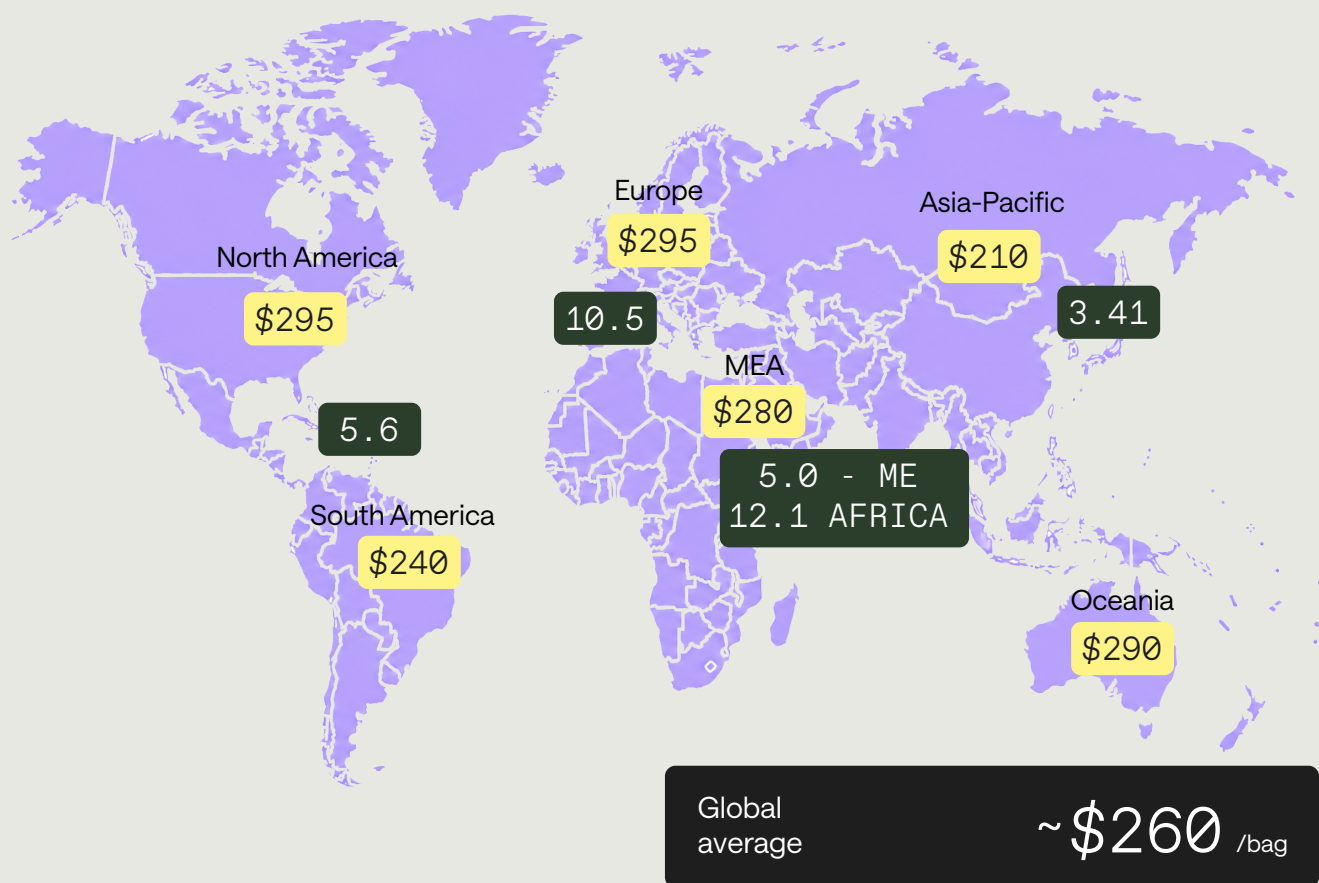
Asia-Pacific stands out with the lowest mishandling rate, at 3.41 per 1,000 passengers, and the lowest cost per bag at \$210. The Middle East also performs well, with a rate of 5.0*. These two regions benefit from newer infrastructure and earlier adoption of tech solutions.

Europe, by contrast, faces greater exposure to transfers (the biggest source of delays) alongside capacity constraints and stricter labor conditions. This results in a higher mishandling rate of 10.5 and an average cost of \$295 per bag.

Regional costs & rates

● Cost per bag including compensation

● Mishandled bags per 1,000 passengers



*Cost regions reflect third party survey groupings; rate regions reflect SITA baggage-rate reporting structure.

**The AMER mishandling rate is sourced from A4A, while all other rates come from SITA Worldtracer. Cost data comes from third party analysis conducted on behalf of SITA, combined with SITA industry expertise and survey data.

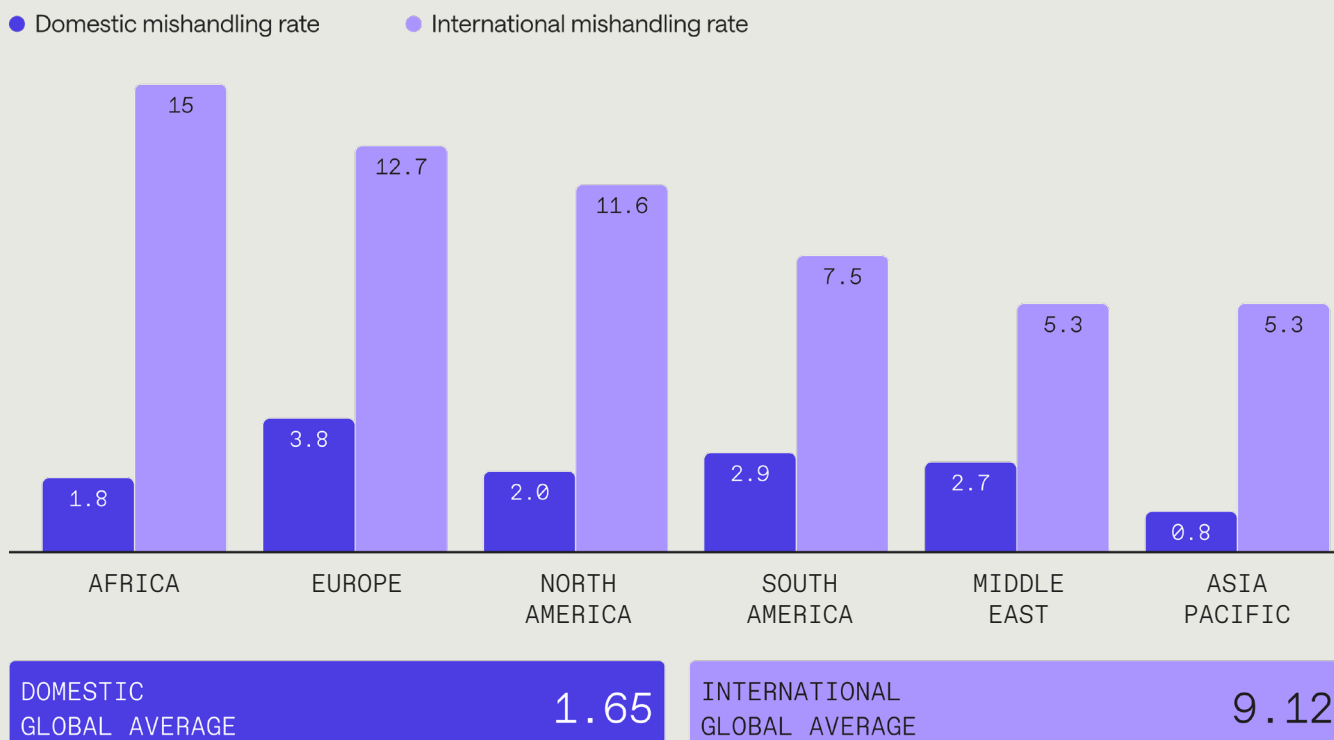
The complexity of international travel

International journeys involve more transfers, more handlers and tighter connection windows, increasing the risk of mishandling. Globally, the rate rises from 1.65 per 1,000 for domestic flights to 9.12 on international routes.

Regionally, Africa, Europe and North America record the highest mishandling rates for international travel. Some of this stems from factors such as older infrastructure and capacity pressures, and – particularly in North America – more fragmented systems with limited end-to-end visibility across stakeholders internationally.

This data again emphasizes the need for data transparency across actors, and tools that predict issues and recommend actions, in order to reduce transfer mishandling rates and costs.

Domestic vs. international rates



Association of Asia Pacific Airlines: Investing in digitalization

While 2025 passenger volumes reached their highest levels since 2022, Asia Pacific airlines continued to demonstrate operational resilience in 2025. Mishandled baggage rates rose modestly, by 9% to 3.4 per thousand passengers, reflecting the pressures associated with higher traffic volumes, but overall performance remained broadly stable. Ongoing investments in digitalization, including the adoption of advanced technologies and AI, are expected to further enhance baggage handling efficiency and support improvements in service reliability over time.

Beatrice Lim
Director, Industry & Regulatory Affairs
Association of Asia Pacific Airlines

Year	Total mishandled & damaged bags	
	No per 1,000 passengers	% change
2021	0.89	(22.5)
2022	3.04	240.9
2023	3.04	0
2024	3.10	2.1
2025	3.41	9.0

Source: Association of Asia Pacific Airlines
Note: Data consolidated from 12 Asian carriers.



ACI World: Progress is encouraging

The progress reflected in this year's baggage results is encouraging. Passenger volumes are growing, while mishandling rates and total mishandled bag volumes are falling. That shows the industry is improving how baggage moves through the system, not simply absorbing more demand.

The next step is to turn better operational performance into a more seamless and resilient baggage experience for passengers. Airports have an important role to play by working with airlines, ground handlers and technology partners to reduce

failure points earlier in the journey, strengthen real-time visibility for stakeholders and passengers and improve end-to-end data exchange. The industry does not lack data; the challenge is ensuring that all stakeholders can act on the same timely, reliable picture when decisions need to be made.

Better shared insight will help prevent mishandling, recover bags faster when disruption occurs, reduce avoidable cost, and deliver the level of baggage experience passengers increasingly expect.



Darryl Dowd

Vice President of Safety, Security and Operations
ACI World



Conclusion: Tackling costs with decisive action

With \$6.3 billion at stake, the industry must now shift from incremental gains to decisive execution. Shared data, real-time intelligence, and automation are the next frontier, and SITA brings these capabilities together at global scale.

The destination is clear: baggage that simply works. Efficient for the industry. Effortless for passengers.



Methodology

This report combines a study estimating mishandling rates and another benchmarking end-to-end mishandling costs.

Cost study - third party analysis conducted on behalf of SITA

- Built as an end-to-end cost benchmark
- 3-step methodology: mapping, cost collection, validation
- Included workshops and expert interviews
- Identified 35+ process steps and 200+ cost drivers
- Surveyed 115 industry professionals across 6 regions
- Results weighted into global benchmark cost estimates
- Survey results provide an aggregated snapshot of market conditions and expert opinions at the time of the survey

Mishandled bags study - Coreso

- Based on 2025 WorldTracer data
- Matched with IATA WATS passenger volumes
- Routes classified as domestic or international
- Mishandled bags aggregated by airline and route type
- 2025 passenger volumes estimated from 2024 actuals
- Data cleaned and corrected for airport code issues





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