SITA

YOUR DIGITAL TRAVEL PARTNER FOR TODAY AND TOMORROW

March 2024

Digital Travel: definition and benefits

As the travel industry accelerates its digital transformation, **SITA** plays a crucial role. We collaborate with airlines, airports, governments, industry bodies, and others to deliver **Digital Travel** experiences for today and tomorrow. This paper explains Digital Travel and its benefits and sketches how industry players and **SITA** can join forces to turn theory into practice.

Travel industry's challenges

Digital Travel will deliver significant efficiency benefits for passengers, airlines, airports, and governments. It is essential to tackle the trends and challenges facing the travel industry.

Traveler numbers are growing again. However, **airports and governments** continue to rely on physical documents, and **airlines** must commit many resources to identity and travel eligibility verification. The industry suffers from staff shortages. At the same time, check-in booths, kiosks, and gates are difficult to scale, increasing the need to move processes off-airport. Travelers must enroll in different airline programs and download multiple apps but cannot make much use of existing identities. They expect mobile, biometric, and touchless technologies to make their journeys easier (SITA Passenger IT Insights 2022). **Governments,** in the meantime, want to achieve more with fewer resources because of national austerity, and they will implement more stringent future identity checks for security and safety.

Benefits of digital travel

By moving away from the reliance on physical documents, Digital Travel can tackle these challenges. Its many benefits will include:

Faster passenger processing and vastly improved passenger experiences

Optimal use of resources and increased capacity and scalability

New revenue streams for travel players

Rapid response to changes in operational processes brought about by regulatory changes, emerging health or security concerns, or commercial needs

Stronger security

Digital travel is a future where you can travel by air, sea, or land from anywhere to everywhere without needing to present your travel documents (such as your passport, visa, health forms, or boarding pass) and without having to stop to confirm your identity, check in, cross a border or access services at your destination.
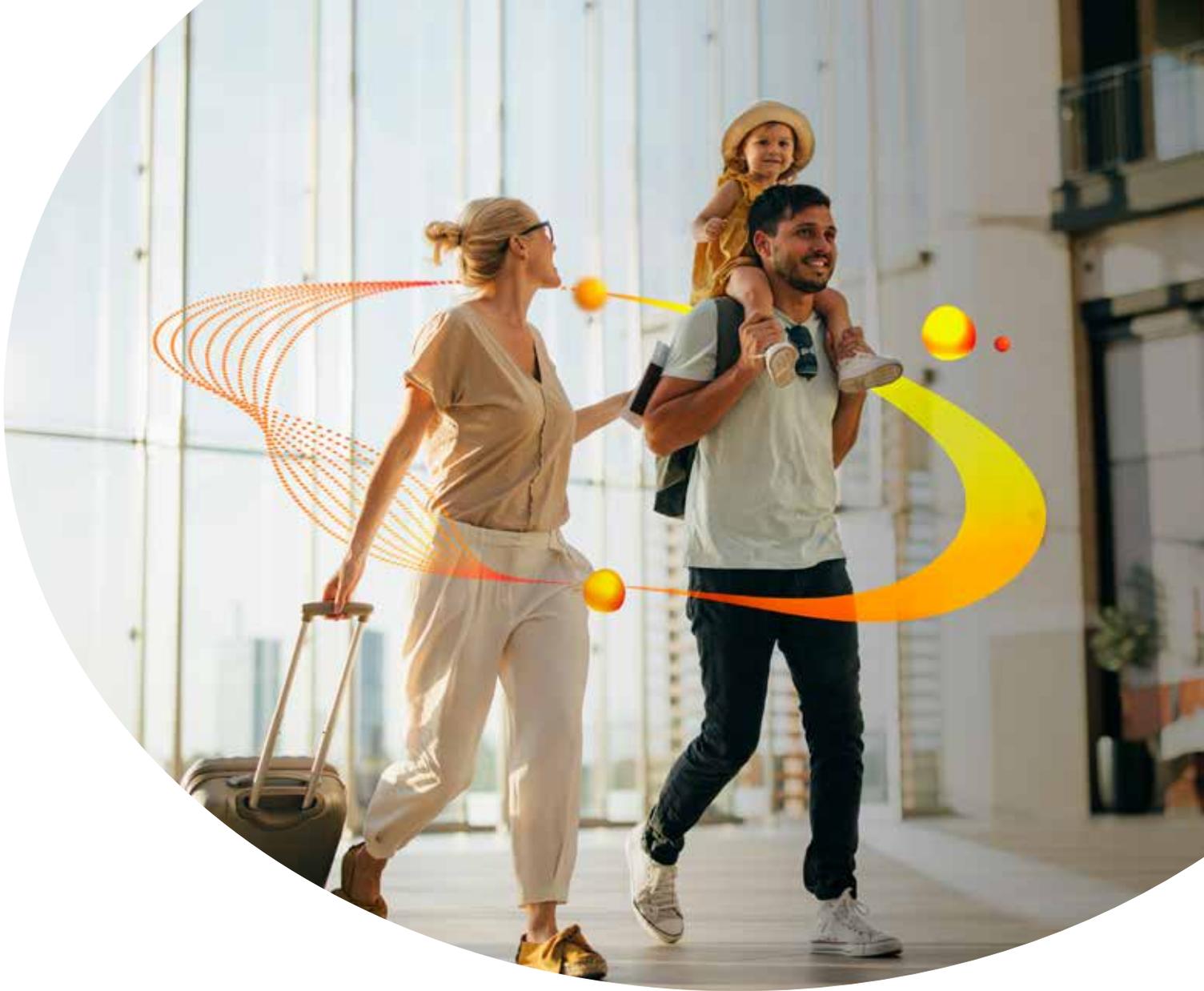
What it means for passengers
- Safe, secure, and stress-free travel
- Passengers can complete processes securely off-airport
- With their digital identity verified, passengers can go through all the usual airport and border processes using just their face, which replaces their passport and boarding pass.
- Seamless entry on arrival and the ability to use the same digital identity at your destination for checking into hotels or other venues

What it means for airlines and airports
- 'Ready-to-fly' passengers
- Fewer missed connections through faster transit passenger processing
- New carrier-bundled, biometrically enabled travel/tourism services
- New value-added services as part of frequent flyer programs

- Less pressure on infrastructure and staff (including ground handlers and security)
- Reduced costs

What it means for governments
- Pre-clearance of passengers before they fly, faster approvals, and risk assessment before departure
- Reduced costs
- Reduced barriers to travel and tourism, bringing economic benefits

Risk of falling behind
The transformation to fully digital processes will increase and accelerate throughout the travel and tourism sector. Standardization is emerging. And as that transformation gathers pace, late adopters risk being left behind. **Travelers, particularly leisure travelers,will increasingly choose their destinations based on ease of travel.**

Digital identity is the key enabler

The enabler of **Digital Travel** will be a digital identity on our mobile devices, replacing the physical e-passports and other travel documents we use today. The traveler's digital identity will be the primary token against which identity confirmations, all risk assessments, and authorizations are made.

Your facial biometric will be verified against your digital identity wherever you travel. You will use this repeatedly, every time you travel and at each stage of the journey: from getting ready to go, security screening and border control, to boarding, baggage collection, and the onward journey, including hotels, venues, events, car rentals, and other local travel and tourism services.

Interoperable and universal

Digital identities will be interoperable and universal, in other words, usable globally. It is important to note that there will not be a single common digital identity. Multiple digital identities will need to be trusted and managed. **A trusted brokering platform connecting identity providers, providers of traveler-facing systems, and other relevant stakeholders is required to handle various digital identities and enable end-to-end digitized journeys.**

Digital Travel must be universal, not standalone for one airline, airport, or transport operator only. We must ensure that digital identities become reusable for travelers across the world's airports and beyond, for every trip, rather than being for one-off use. And we need integration across the journey's touchpoints, aligning commercial and government entities to ensure smooth steps across the entire trip.

A global standard: Digital Travel Credential (dtc)

To make that work globally, the International Civil Aviation Organization (ICAO) is already developing standards and recommended practices to start issuing a **Digital Travel Credential as a virtual complement to – and eventually replacement for – each citizen's physical travel document.**

Travelers with a Type-2 DTC – an equivalent to their physical passport – will not need to present their physical documents (such as a passport, visa, health form, boarding pass, or driver's license). Instead, they will only need their mobile device or biometrics to confirm their identity. This will drive the adoption and use of Type-2 DTCs by a myriad of stakeholders, including hotels, car rental firms, and tourism service providers. Indeed, the benefits of working with trusted, government-issued digital credentials against which a traveler's identity can be quickly and reliably confirmed, apply to all transport modes and stakeholders providing travel and tourism services throughout the journey.

Digital identities underpin digital travel. Your digital identity will be the master key for unlocking every step of your journey, end-to-end, from the earliest intention to travel to your destination activities and your return journey. It will not matter how many trips you take, where you travel in the world or how.

Digital identity is part of a much bigger ecosystem

Harnessing digital identities relies on the next generation self-service travel infrastructure, featuring integrated cloud, mobile, and biometric enabled self-service touchpoints for check-in, bag-drop, border control, and boarding.

Next-generation self-service travel infrastructure

The combination of digital identities with this infrastructure provides a seamless, touchless, and personalized travel experience while allowing travelers to remain firmly in control of their personal data.

Using digital credentials and mobile device-based and biometrically enabled capabilities, border authorities, airports, and airlines can accurately and remotely verify identity and travel authority wherever required (e.g., confirming that travelers hold a valid passport and digital visa for a journey).

Check-in kiosks will need to be capable of reading DTCs. Automated border control e-gates will need to validate the traveler's DTC and perform the biometric matching against the data received, not the accompanying physical document. Equally, hotels will look to upgrade their check-in systems to allow guests to check in and gain access to their rooms using their digital identities.

> While digital identity is the key enabler of digital travel, it is only one part of a much bigger ecosystem. As governments move forward with their plans to issue digital travel credentials to their passport-holding citizens, industry stakeholders will require new capabilities and infrastructure to work with them effectively.

SITA is the go-to choice

Created and owned by the air transport players, we are unique in bringing together industry stakeholders to address their individual and collective challenges.

A globally trusted identity framework

SITA's core business is brokering interoperability between commercial entities and between commercial entities and authorities. Where standards exist, we implement them. Where they do not, we create smart, future-proof technologies.

SITA is firmly positioned to contribute to a globally trusted identity framework with accredited identity providers, trusted identity verification, and ethical, secure, and private use of biometrics.

SITA leads in delivering solutions where 'your face is your passport and boarding pass' and 'your mobile phone is your remote control for travel'.

Our SITA Smart Path and SITA Flex solutions help to reimagine the airport travel experience, making it mobile, biometrically enabled, and untethered from fixed points in the airport.

'Your face is your passport and boarding pass'

SITA Smart Path is our biometric, self-service, and mobile-enabled identity management platform, delivering 'Your face is your passport and boarding pass' solutions at airports globally. Passengers enroll their facial biometric and journey details, in advance, via their mobile or at an airport touchpoint, for quick and touchless 'single token' digital identity verification for their current trip. With cross-border arrangements, this can be the same at all airports on the same journey.

'Your mobile is your remote control for travel'

Our **SITA Flex** platform enables 'Your mobile is your remote control for travel'. The **next generation of common-use infrastructure** relies on API and cloud technology to extract and manage journey data. It can provide a mobile, self-service, and automated passenger experience, both on and off-site, for example, for touchless bag tagging and easy access to security screening without having to show your boarding pass.

SITA is the travel industry's go-to choice for the digital travel of the future. We know and already work with the relevant stakeholders, using the many building blocks of digital travel and constantly innovating for digital passenger processing, digital borders, and beyond.
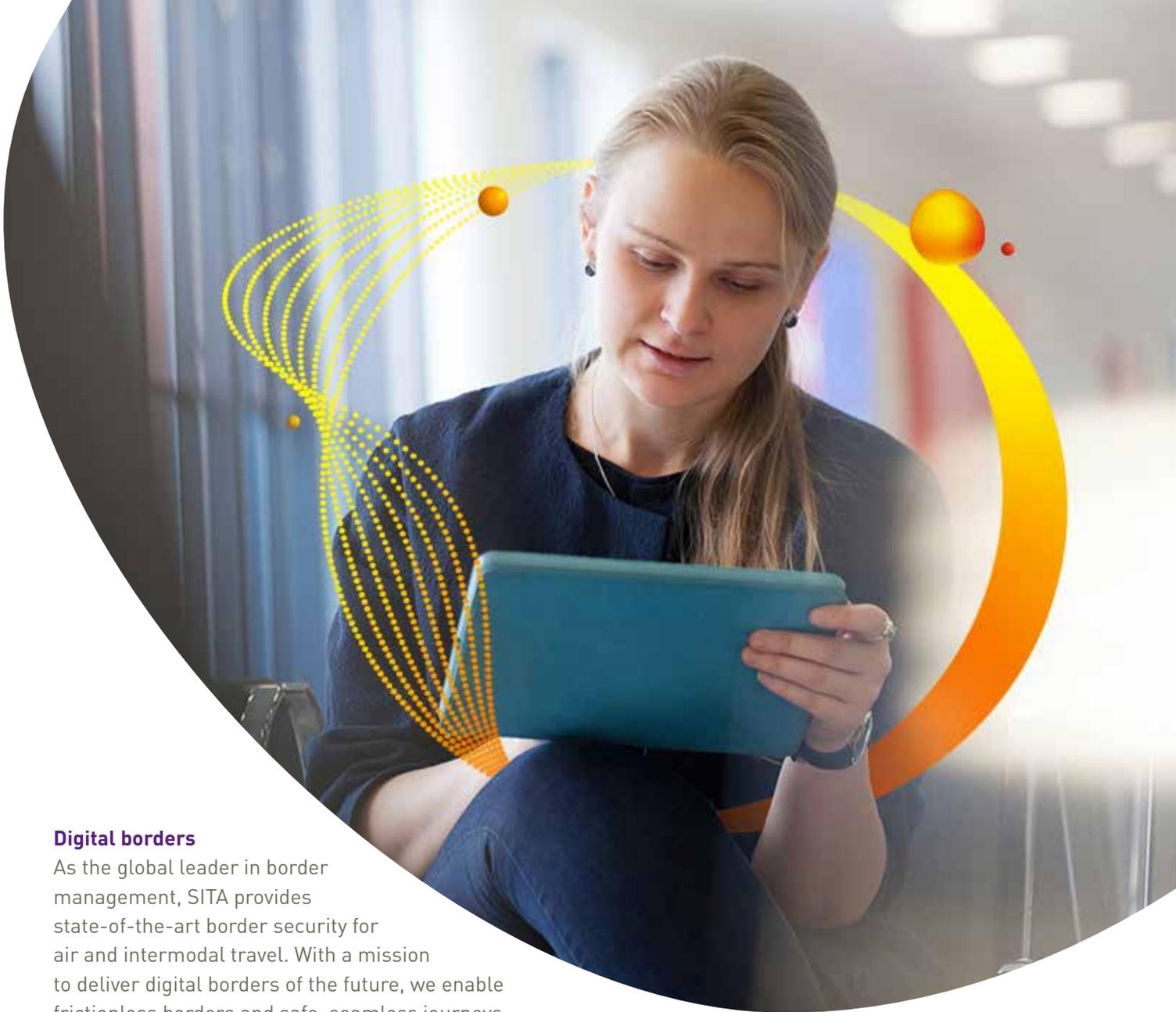
Digital borders

As the global leader in border management, SITA provides state-of-the-art border security for air and intermodal travel. With a mission to deliver digital borders of the future, we enable frictionless borders and safe, seamless journeys for the benefit of trade, tourism, and economic growth. We help countries to create agile, dynamic, and digitally enabled borders so that they can react to real-time events and manage them proactively.

Using SITA's industry-leading Advance Passenger Processing (APP), governments can approve a traveler's border security status and boarding in real-time, in advance of travel, **exporting a country's border to the point of embarkation.** Arriving at the airport pre-cleared minimizes hassle and queuing. With identity, travel, and (where required) health information checked, processing passengers is touchless and efficient, whether using biometric-enabled gates or traditional checkpoints.

ICAO recommends combining advance passenger processing with a travel authorization solution, linking the visa process with border control to enable real-time visa validation at check-in. SITA provides a **fully electronic travel authorization and visa issuance and management** system for secure and efficient pre-departure assessment and authorization of travelers that can be remotely verified via APP.

Self-service passenger processing units

These digital solutions benefit from SITA's range of modern self-service passenger processing units, including bag drops, face pods, e-gates, and kiosks, offering many use cases, from checking-in and enrolling for a biometric single token to bagtag printing, self-bag drop, and automated border control.

A community approach is essential

SITA supports adopting global standards and initiatives such as ICAO's Digital Travel Credential. We stand with industry bodies such as IATA and Airports Council International (ACI), and we play our part in developing the Safe & Seamless Traveler Journey (SSTJ) initiative of the World Travel & Tourism Council (WTTC).

This support for open standards extends to building technologies based on open-source protocols wherever possible. This allows us to provide the most seamless, interoperable solutions that benefit both our customers and travelers. The core technologies behind our digital travel solutions are verifiable credentials (VCs) and decentralized identifiers (DIDs). These are new technologies based on the global specifications from the World Wide Web Consortium (W3C). Partnering with Indicio, the global leader in verifiable data technology, we developed and deployed the world's first DTC following ICAO standards combined with DIDs and VCs. This means our solution provides a faster, more efficient way of verifying traveler information and data while upholding the highest level of security and privacy-preservation for the travelers. Our complete system also includes using digital wallets built on open-source technology from the Hyperledger Foundation, a Linux Foundation project. This form of digital wallet allows travelers to hold multiple forms of identity, tickets, keys, arrival information, and much more in one place, keep that data entirely under their control and reuse it again and again along their journey. Digital travel services such as pre-clearance, pre-entry, and pre-arrival processing are easier to provide than ever, replacing manual, paper-based processes with a better, seamless traveler experience. **SITA is the first in the world to provide a DTC solution for international air travel and more.**

Putting theory into practice

Innovations, trials, and proofs-of-concept are critical to progress. **Our pioneering, award-winning Digital Travel work with the Government of Aruba has piloted the pre-clearance of travelers visiting the island using a mobile app and secure, decentralized SITA trust network based on blockchain technology to authenticate traveler credentials.** With a verified, durable, and privacy-preserving digital identity on their mobile devices, travelers can enjoy fast-tracked entry at Aruba's airport and, upon arrival, access to many of the island's participating venues, such as restaurants, shops, and clubs.

The challenges the travel industry faces represent a void that only digital travel can fill. Digital travel incorporates government-approved identities, delivers interoperability and integration between touchpoints, and is presented as a single service to the traveler. Significant work must be done for digital travel to become a reality. A community approach is essential to make it happen. We look forward to building completely joined-up, digitally enabled journeys with our travel industry customers and partners.

SITA's work with Aruba is expanding to include ICAO's DTC, enabling airport authorities, airlines, and the government to give travelers the ability to securely share their identity (biometric and biographic information) to automate their journey. Biometric boarding and e-gates at immigration entry/exit mean that travelers can keep their passports in their pockets for easier facilitation at different journey steps. To enable the digital journey, SITA is leveraging its APP solution, SITA Smart Path face pods, and a SITA mobile app to integrate with open standards and other vendor platforms and government IT systems.

A promising approach is to look at the **possibilities in countries that already use SITA border solutions** at and off airports. In Jamaica, for example, SITA's Digital Travel Declaration allows travelers to submit all travel and health documentation required to enter **Jamaica** through a single platform.

It is also worth considering where we can build on next generation self-service travel infrastructure. The SITA Smart Path **identity management platform has already been successfully deployed at major airports**, including Beijing, Boston, and Orlando.

The platform is also being tested or introduced at various other airports around the world, such as Athens, Brisbane, Doha (Hamad), Kuala Lumpur, Oman, Riyadh, Rome, San Francisco, Shanghai, and Taipei. These initiatives bring important benefits to the community, digitally transforming the passenger journey today and setting the industry on a path toward Digital Travel of the future.
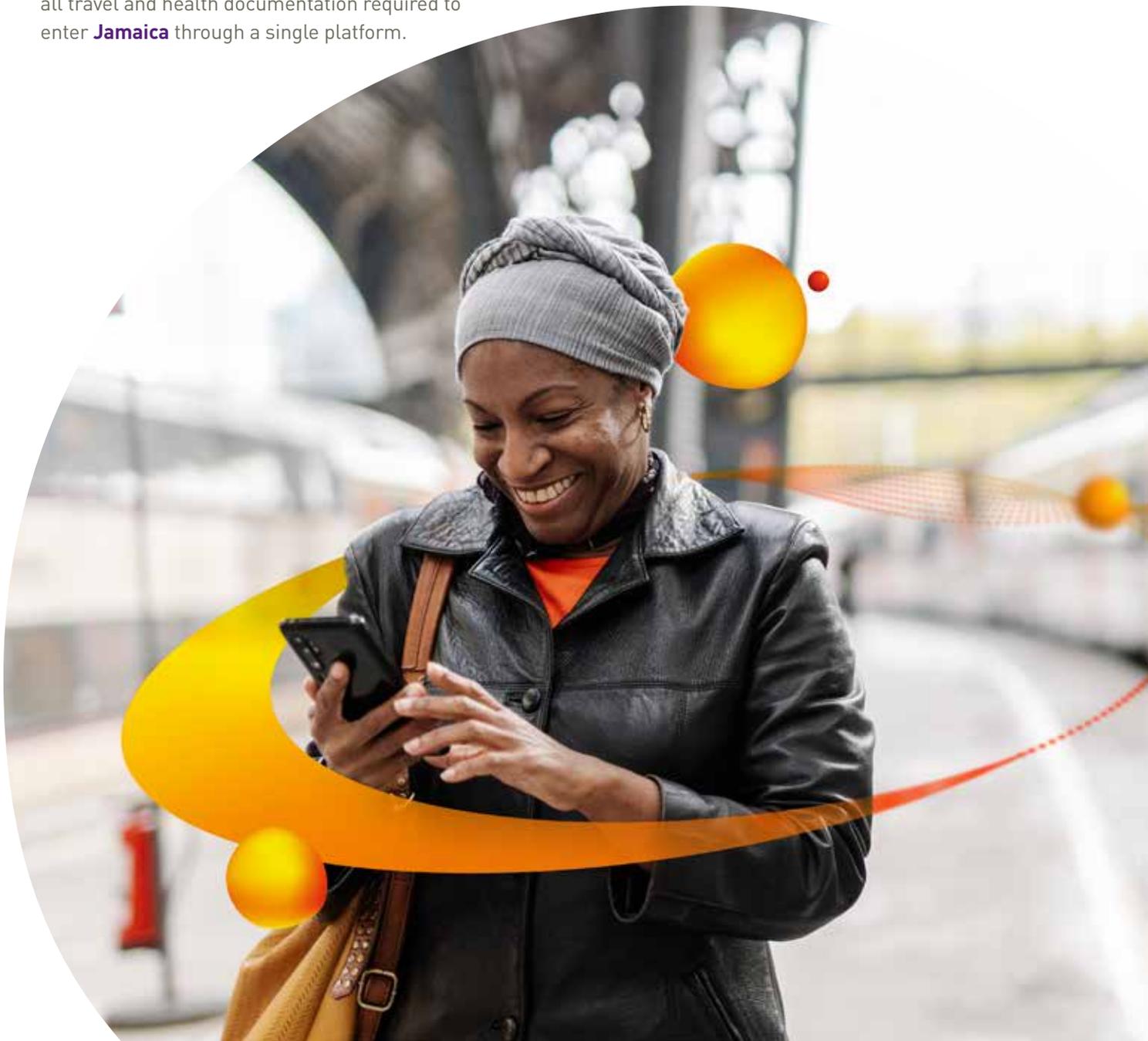
Where to start?

Let us build on the existing. We are keen to invest and looking for additional partners – carriers, government authorities, and airports – to **build further proofs-of-concept with the latest advances in cross-border digital travel with a strong focus on entry, in-country services, and exit.** These projects will put theory into practice and test, in real-life scenarios, how and where the benefits of Digital Travel can be fully realized for all stakeholders.

We are also looking to work with government authorities to create a **digital travel corridor between two countries**, offering travelers on those routes fully digital processes throughout their entire journey, including crossing the border.

Governments are a critical nexus in digital identity use in travel. Their involvement benefits all other stakeholders, and carriers can play a crucial role in getting them involved. A joint and orchestrated effort from carriers, other commercial entities, and governments will lead to the best results.

Within each country, we would jointly enlist the support of carriers, critical government authorities, airports, hotels, and other stakeholders. Collectively, this would enable us to trial multiple scenarios, identify benefits to be realized, and capture valuable lessons learned to shape the design of future Digital Travel solutions. We can also facilitate the discussion of potential collaborative multi-stakeholder revenue models.

In addition, **why not talk to us about your digital transformation?** We are heading for a world in which every travel process will be digital, by default – creating a seamless travel experience, with no need to rely on manual processes. As you digitize the journey, **we can help you take small or large steps to put into place mobile and biometrically enabled travel.** Whatever you choose, it's important to know that you can evolve to the vision of Digital Travel of the future.

> The future of travel is fully digitally enabled. Following a community approach, SITA's vision of digital travel is a future where you can travel from anywhere to everywhere without needing to show your travel documents, underpinned by digital identities and a digital travel credential ecosystem that uses the next-generation self-service travel infrastructure featuring integrated cloud, mobile, and biometric-enabled self-service touchpoints.

Join us in shaping the future of travel

Together we can significantly enhance traveler confidence and convenience while promoting growth and prosperity in your country's travel and tourism industry. For more information, please contact Ilkka Kivela, VP Strategy and Innovation at: **ilkka.kivela@sita.aero**