The Evolution of Identity for Travel

Paul Cross – Head of Border Management Sydney, SITA at Borders

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Air travel is recovering but infrastructure and processes will not keep up
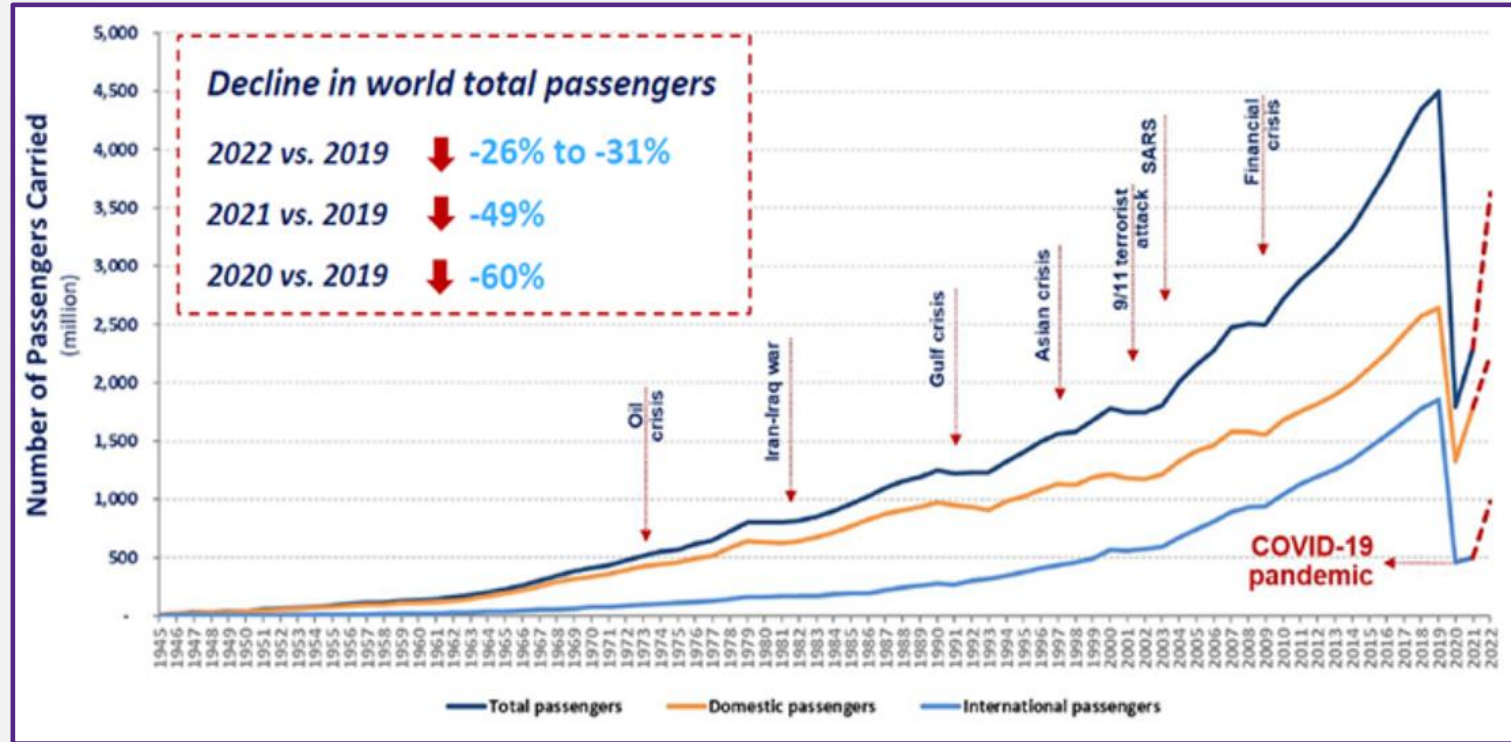
IATA Air Travel Growth March 2023

Geneva - The International Air Transport Association (IATA) announced strong demand growth in air travel for March 2023.

Total traffic in March 2023 (measured in revenue passenger kilometers or RPKs) rose 52.4% compared to March 2022. Globally, traffic is now at 88.0% of March 2019 levels.

Domestic traffic for March rose 34.1% compared to the year-ago period. Total March 2023 domestic traffic was at 98.9% of the March 2019 level.

International traffic climbed 68.9% versus March 2022 with all markets recording healthy growth, led once again by carriers in the Asia-Pacific region. International RPKs reached 81.6% of March 2019 levels while the load factor at 81.3% exceeded the March 2019 level by 10.1 percentage points.

ICAO World Traffic Evolution 1945 - 2022

Pre-COVID:
- Passenger volumes will double by 2037 (IATA)
- APAC will contribute 34% of world traffic (ICAO)

Then it all started again

British holidaymakers told to expect six hour airport queues

British holidaymakers told to expect six hour airport queues | Evening Standard

Long queues, delayed flights and irritated passengers: inside two years of chaos at New Zealand's airports

Long queues, delayed flights and irritated passengers: inside two years of chaos at New Zealand's airports | RNZ News

Queues greet holidaymakers at airports

Queues greet holidaymakers at airports | The Canberra Times | Canberra, ACT

Manchester Airport 'madness' as holidaymakers face two-hour waits at security

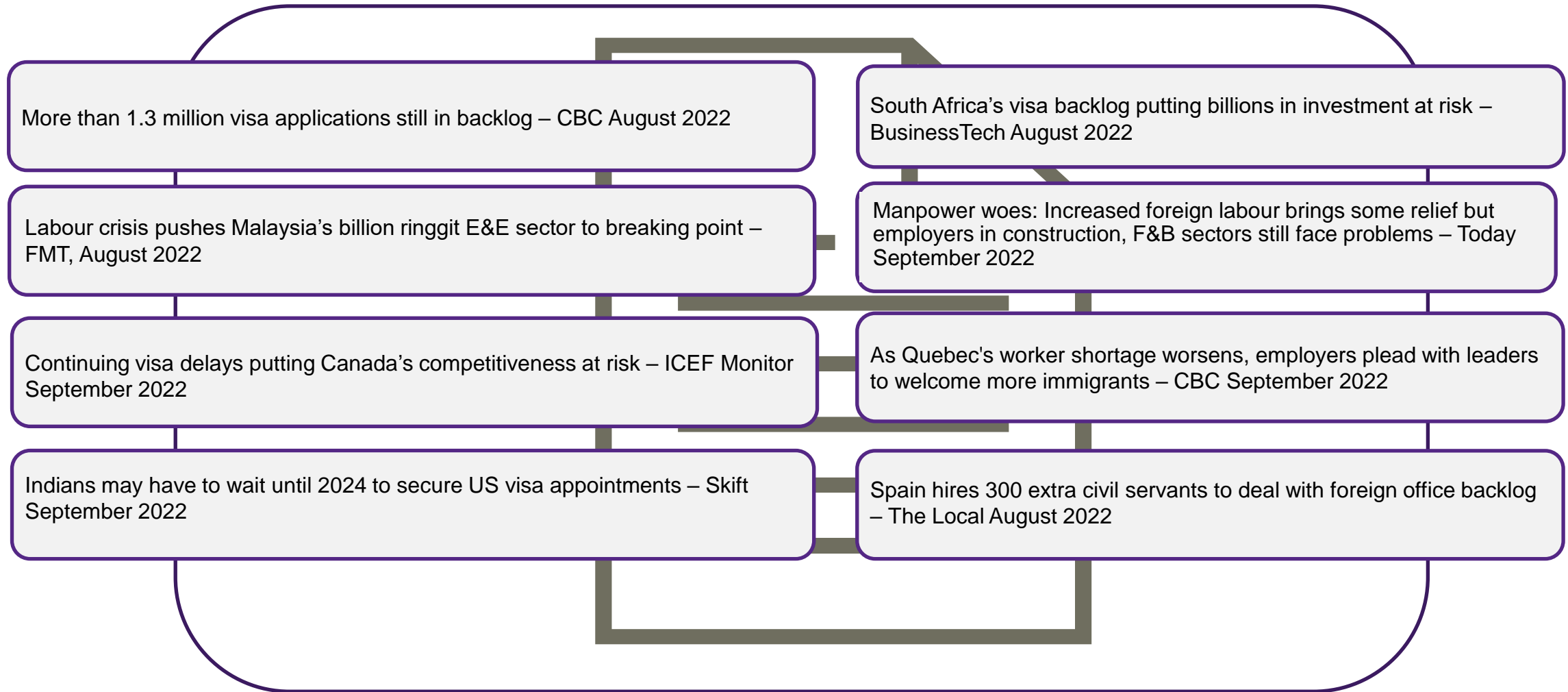Manchester Airport 'madness' as holidaymakers face two-hour waits at security - LancsLive

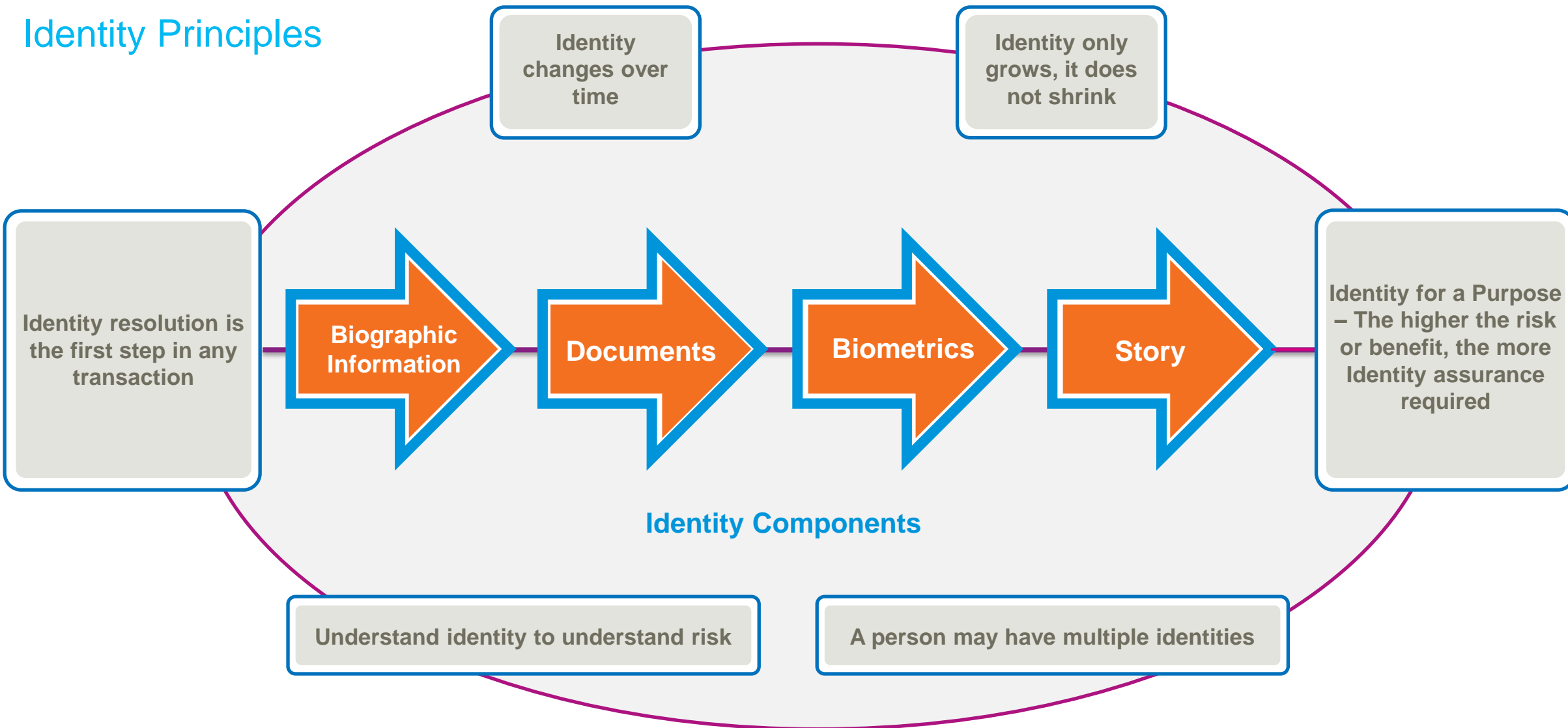Passengers queue outside terminal buildings at Dublin Airport as 50,000 people fly abroad

IRELAND

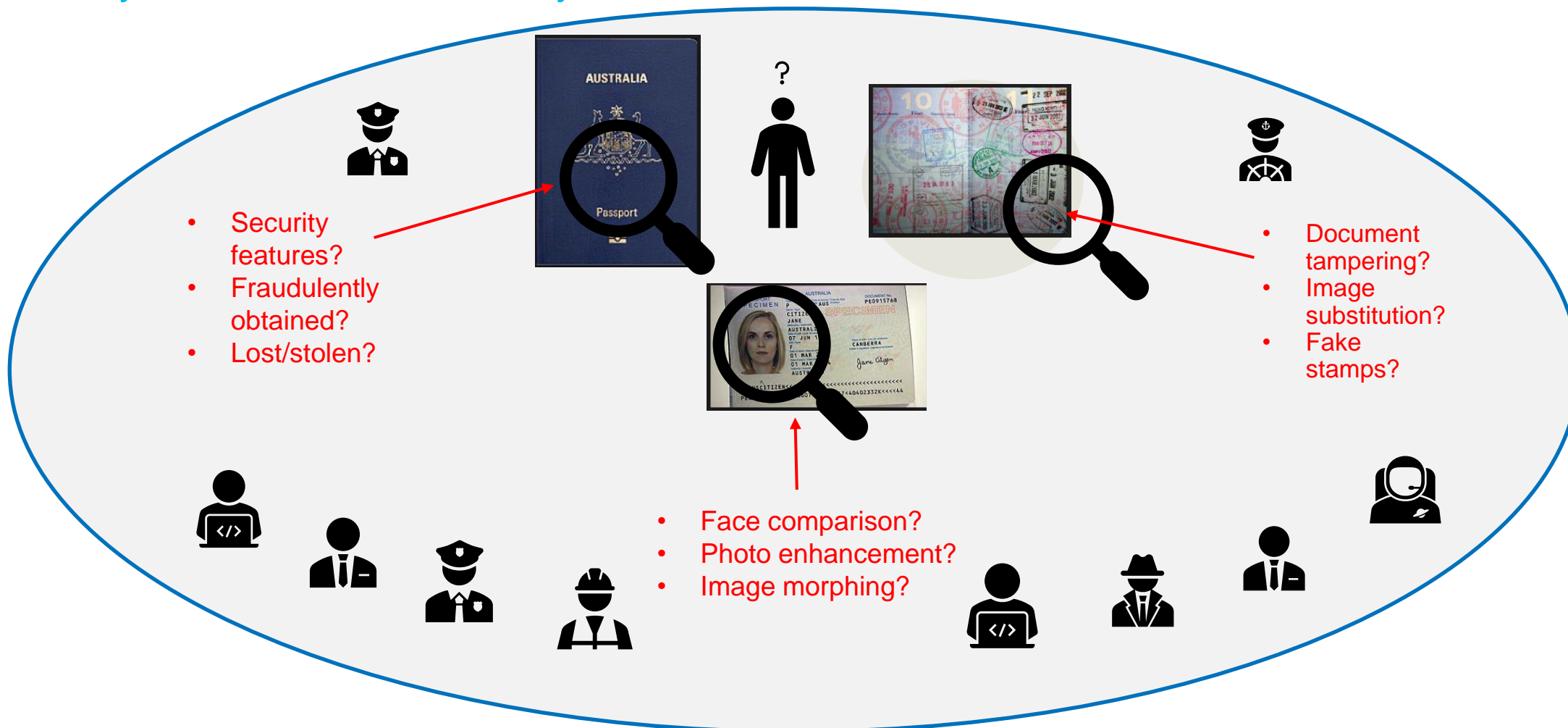Passengers queue outside terminal buildings at Dublin Airport as 50,000 people fly abroad (breakingnews.ie)

Pandemic impacts on business and migration

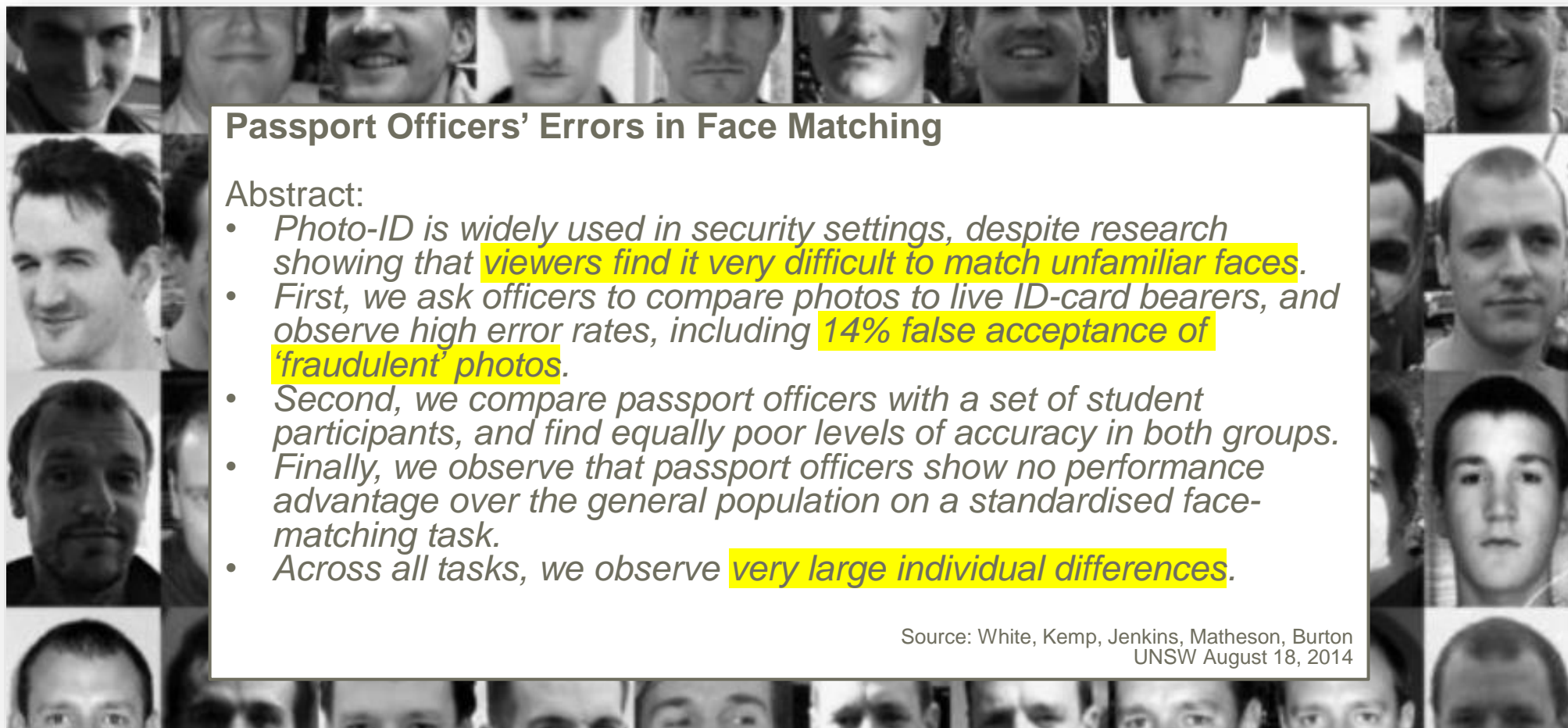More than 1.3 million visa applications still in backlog – CBC August 2022

South Africa's visa backlog putting billions in investment at risk – BusinessTech August 2022

Labour crisis pushes Malaysia's billion ringgit E&E sector to breaking point – FMT, August 2022

Manpower woes: Increased foreign labour brings some relief but employers in construction, F&B sectors still face problems – Today September 2022

Continuing visa delays putting Canada's competitiveness at risk – ICEF Monitor September 2022

As Quebec's worker shortage worsens, employers plead with leaders to welcome more immigrants – CBC September 2022

Indians may have to wait until 2024 to secure US visa appointments – Skift September 2022

Spain hires 300 extra civil servants to deal with foreign office backlog – The Local August 2022

Identity Principles

Identity changes over time

Identity only grows, it does not shrink

Identity resolution is the first step in any transaction

Biographic Information → **Documents** → **Biometrics** → **Story**

Identity for a Purpose – The higher the risk or benefit, the more Identity assurance required

Identity Components

Understand identity to understand risk

A person may have multiple identities

Identity assurance and identity stakeholders

- Security features?
- Fraudulently obtained?
- Lost/stolen?

- Document tampering?
- Image substitution?
- Fake stamps?

- Face comparison?
- Photo enhancement?
- Image morphing?

Face recognition skills

Passport Officers' Errors in Face Matching

Abstract:
- *Photo-ID is widely used in security settings, despite research showing that viewers find it very difficult to match unfamiliar faces.*
- *First, we ask officers to compare photos to live ID-card bearers, and observe high error rates, including 14% false acceptance of 'fraudulent' photos.*
- *Second, we compare passport officers with a set of student participants, and find equally poor levels of accuracy in both groups.*
- *Finally, we observe that passport officers show no performance advantage over the general population on a standardised face-matching task.*
- *Across all tasks, we observe very large individual differences.*

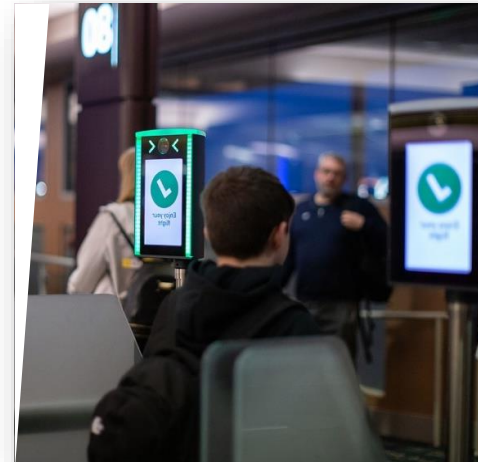Source: White, Kemp, Jenkins, Matheson, Burton
UNSW August 18, 2014

Industry Vision for Biometrically Enabled Travel and Nation Access

Create a contemporary, simple, convenient process for the traveler, harnessing the latest technologies

Leverage traveler's capacity to share ID & status with government
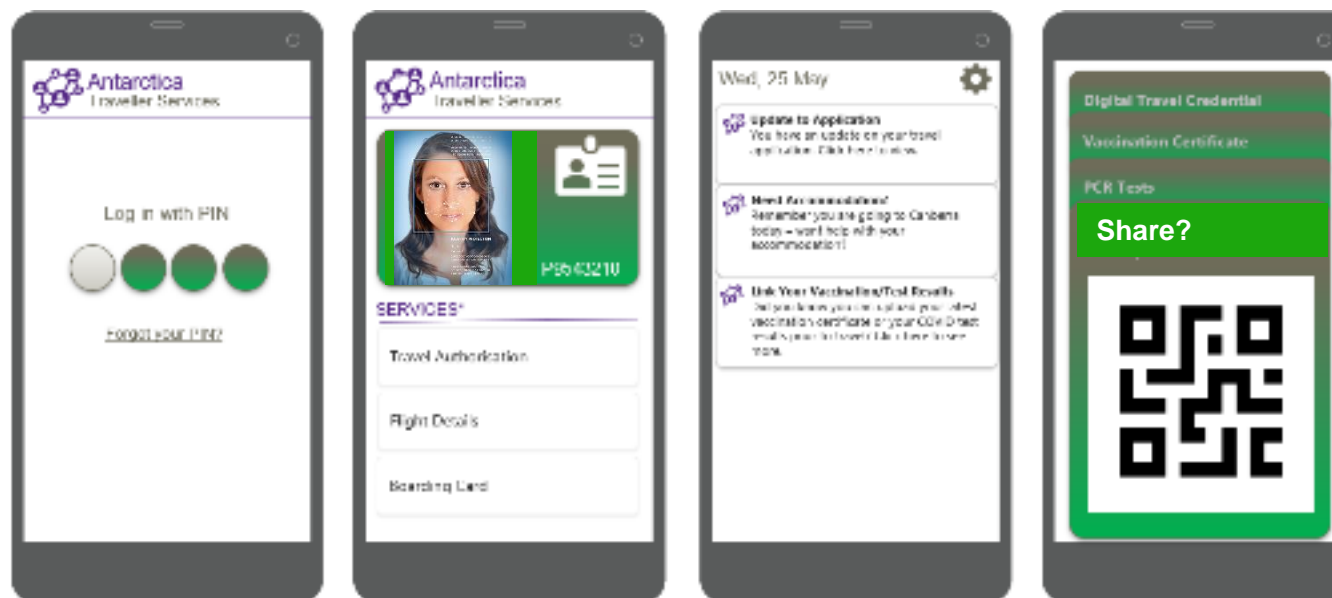
Maintain and enhance the security of the process, observe privacy

Create efficiencies for all stakeholders

Underpin existing investments, airport equipment agnostic, accelerate industry standards
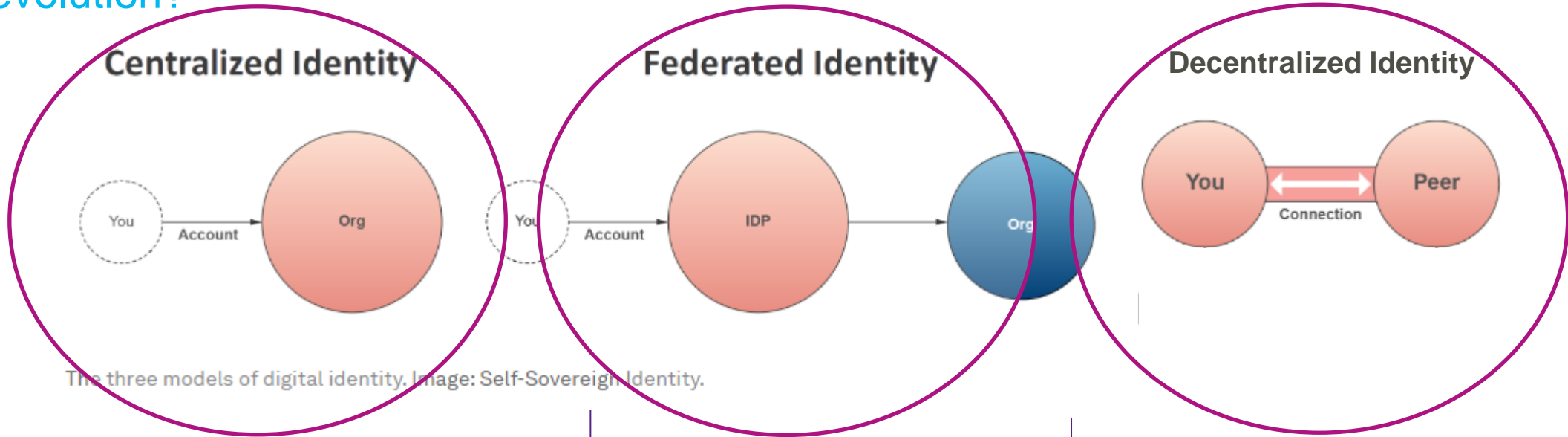
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- **'Game Changer' identity assurance:** biometrics, OCR, digital certificates, QR codes, passport chip validation.
- **Convenience**: improved usability and 'single window' constructs for all international travel requirements
- **Stronger engagement:** travelers through improved access to services and improved communication.

Identity assurance and enriched data, for improved security and fast border processing

The most intuitive and convenient channel for organizing international travel

An evolution?

The three models of digital identity. Image: Self-Sovereign Identity.

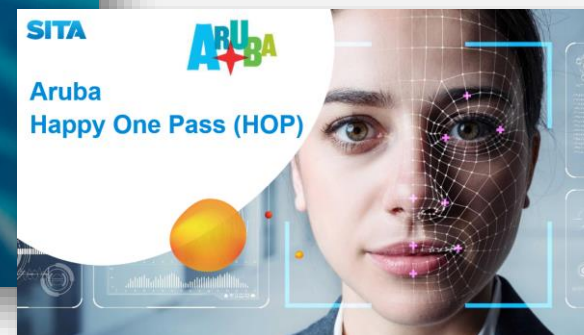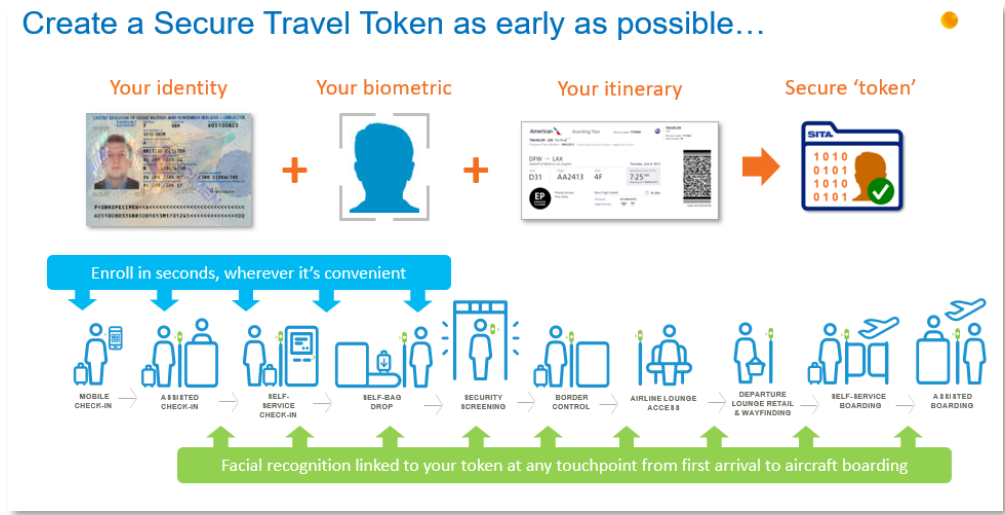|	Centralized Identity	Federated Identity	Decentralized Identity
STRENGTHS	Can be built with specific purpose in mind; potential for organizational vetting of identity data	Users can access a wider range of services; efficiency for organizations	Increased user control and reduced amount of information collected and stored by organizations
CHALLENGES	Generally low user control; centralized risk and liability; potential for abuse	Generally low user control; high technical and legal complexity	Governance model, acceptance and participation is complex; evolving landscape; complex liability

Digital Transformation for Travel

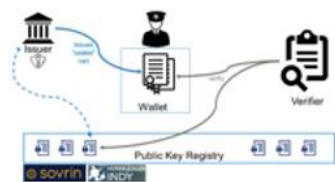# Industry Vision for Biometrically Enabled Travel and Nation Access

SITA Smart Path

Create a Secure Travel Token as early as possible…

Your identity + Your biometric + Your itinerary → Secure 'token'

Enroll in seconds, wherever it's convenient

MOBILE CHECK-IN → ASSISTED CHECK-IN → SELF-SERVICE CHECK-IN → SELF-BAG DROP → SECURITY SCREENING → BORDER CONTROL → AIRLINE LOUNGE ACCESS → DEPARTURE LOUNGE RETAIL & WAYFINDING → SELF-SERVICE BOARDING → ASSISTED BOARDING

Facial recognition linked to your token at any touchpoint from first arrival to aircraft boarding

ICAO Electronic Pilot License

Aruba Happy One Pass (HOP)

Evaluating Digital Identity Technology

Overview

In recognition of the increased use of digital identity documents, TSA is evaluating their potential impact on aviation security and operations.

TSA is integrating digital identity capabilities – including the acceptance of state-issued mobile driver's licenses – at the TSA checkpoint using the Credential Authentication Technology 2 (CAT-2) system to provide for a secure and seamless method of verifying an individual's identity.

A mobile or digital driver's license is a digital representation of the information contained on a physical ID, stored on and accessed through a mobile device (such as a smartphone).

TSA will continue to notify the public of its pilots and testing efforts through publicly issued Privacy Impact Assessments (PIAs).

Digital ID and Mobile Driver's License

TSA will deploy CAT-2 units in early 2022 to support the phased rollout of digital IDs, including mobile driver's licenses. During the initial stages of the rollout, TSA will only accept select mobile driver's licenses and digital IDs from TSA PreCheck® passengers.

Thank you

SITA

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