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Security & Facilitation

Past, Present, Future: 75 Years of Enabling Air Transport

Past, Present, Future: 75 Years of Enabling Air Transport

Chris Bonn

Chief Technology Officer / Finnish Immigration Service

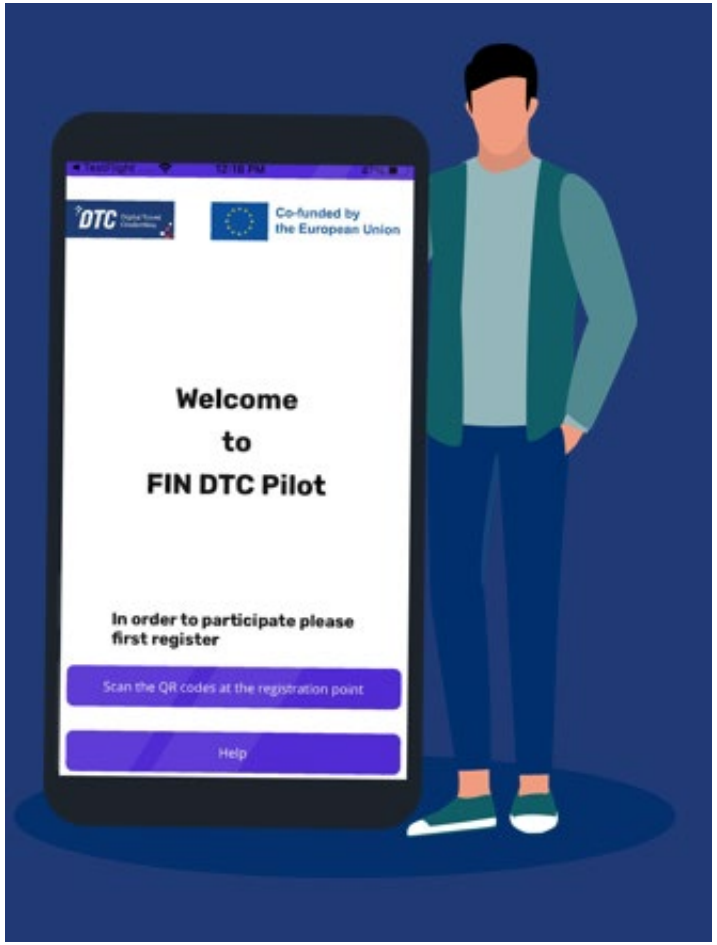
The Finnish DTC Type 1 pilot

01 Timeline

02 Processes

03 Defect Management

04 Digital Residence Permit



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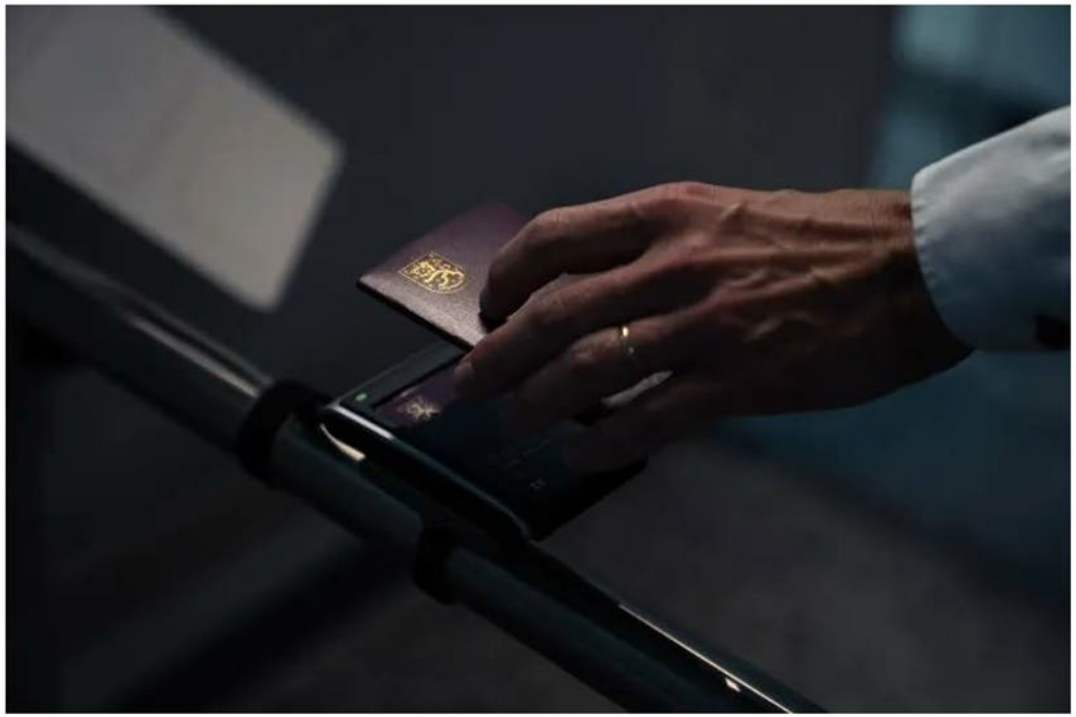
Media attention

The Best Inventions of 2023

An E-Passport

Digital Travel Credentials



BY PRANAV DIXIT

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01

Timeline

Co-funded by
the European Union

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28th August 2023 – launch of pilot

Three destinations

1st September 2023 - First passenger to use DTC Type 1

Autumn 2023 - Temporary suspension of pilot due to Russian hybrid influence

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19th December 2023 - restart

Increased DTC border control lines

Opened routes to 22 different destinations
(previously only three)

31st March 2024 end of pilot

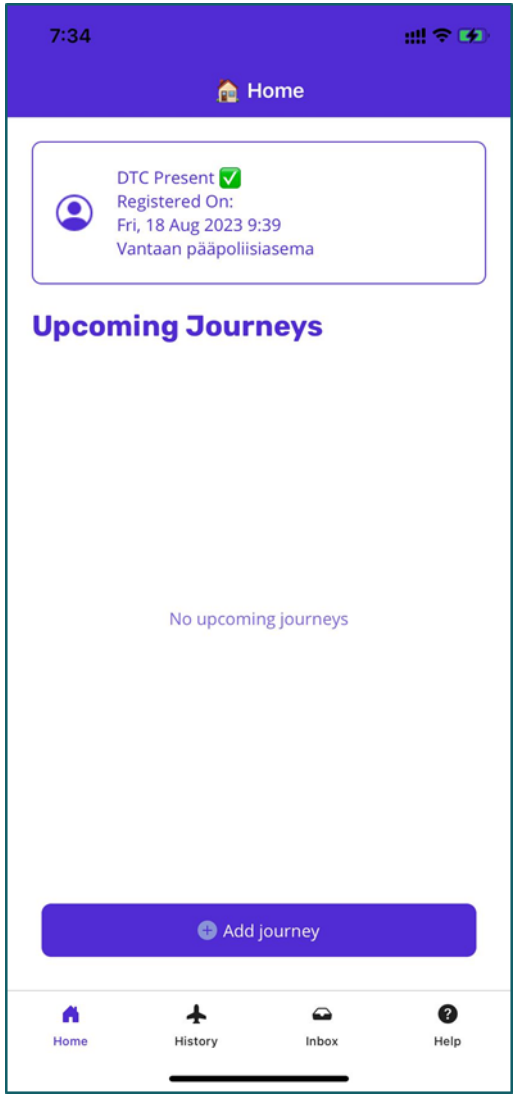
02

Process

Focus on Type 1

Live Enrolment

- 2 police stations (HEL airport and Tikkurila)
- Verification of identity
  - Consent form
  - Backend checks
- Chip validation
- Live photo
  - DTC v.1.5
- Derivation of DTC onto a mobile device
- DTC stored encrypted on holder's mobile device
- DTC-app password protected



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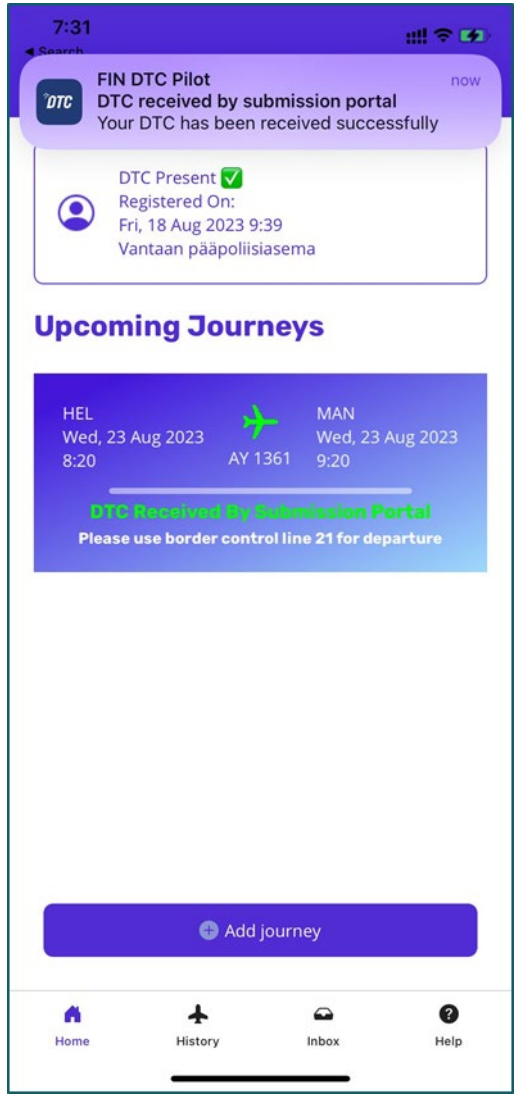
Pre-travel

- Submission of DTC to Border Guard
- 4 - 36 hours prior departure or arrival
- Only from or to HEL Airport
- Pre-screening of DTC

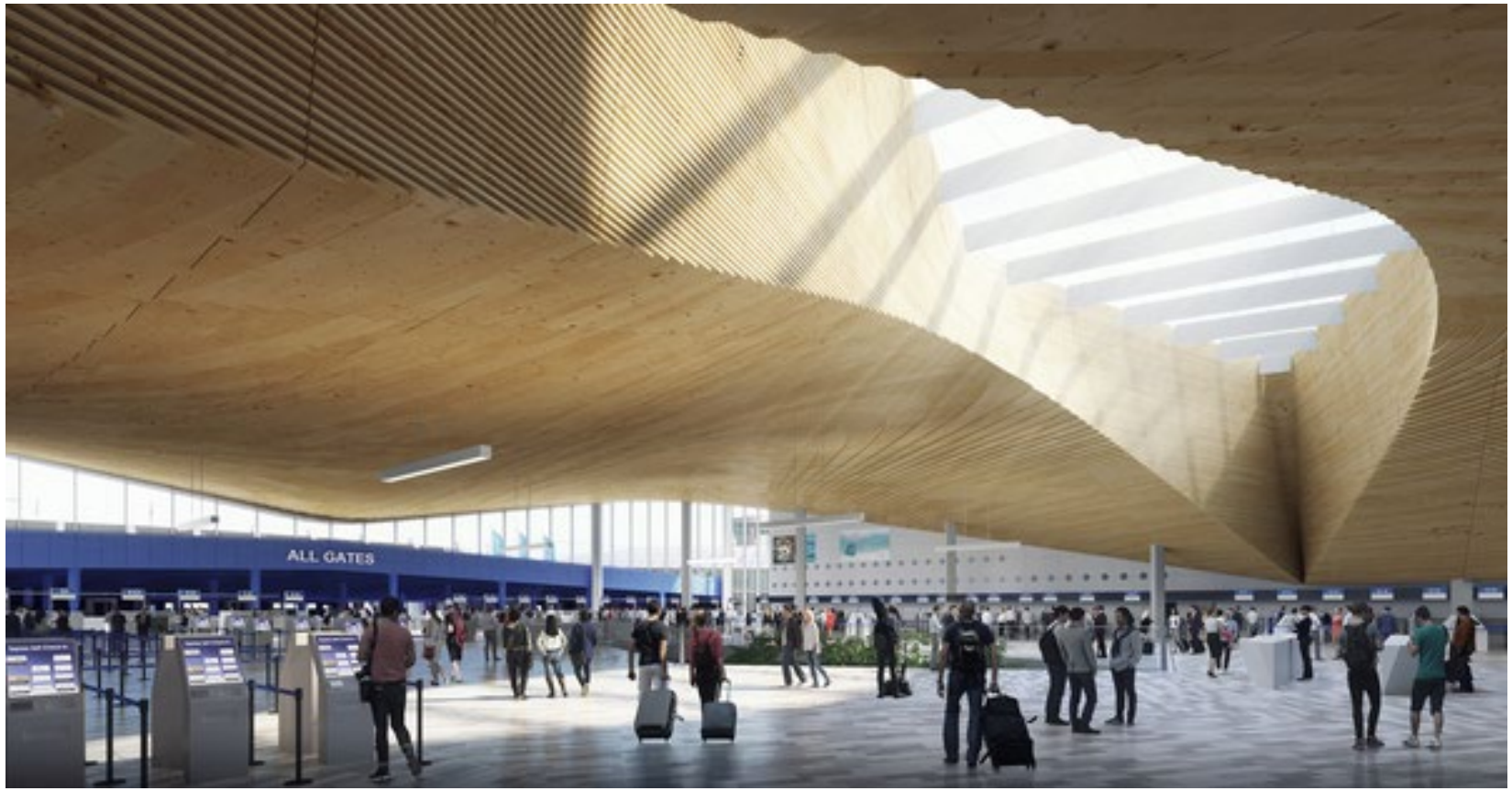


Border crossing

- Image capture
- Facial recognition 1:Few (DTC gallery)
- DTC data (MRZ) used to access the passport chip
- Only the Chip Authentication protocol was performed
- In total ~ 2 seconds

03

Defect Management



Defect management is essential for DTC use

Passport chips have defects
Genuine passports regularly fail validation
Defects may cause similar results as forged passports

The consequences of persistent false alerts:

- Challenging to confirm all passports failing validation
- Increased risk of misuse (not limited to border control)
- Time and resource consuming

04

Digital residence permit

Digital Residence Permit

The goal was to draft technical specifications on how to embed a facial image into a 2D-barcode

The ultimate goal was to use the TS to harmonise the ICAO IDB bardcode standard to ensure global interoperability

The challenge was to compress a facial image small enough to fit into the payload, but with sufficient quality for automated facial recognition

The technical specifications would not be limited to an eRP and could be any travel document requiring biopage data and facial image

Example – IDB with Signer Certificate

In accordance with the IDB standard the size – 2641 bytes

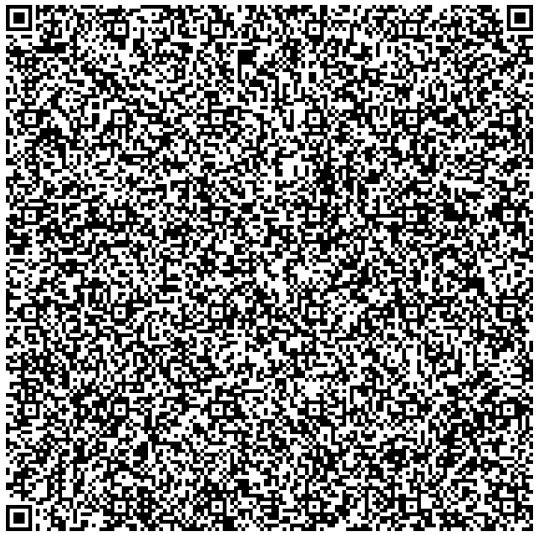
Physical size approximately 5cm X 5cm

Form formats;

- PDF-file
- Printed
- Polycarbonate (TD1)

Does not prevent copying

Data cannot be altered



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Thank You

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