Digital Travel Credentials Pilot

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REGIONAL SYMPOSIUM

BUILDING **FUTURE RESILIENCE:**
THE ROLE OF **SEAMLESS**
AND **CONTACTLESS** TRAVEL

From ePassport to the ICAO DTC-VC and DTC-PC

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PASPOORT

VC   **PC**

- Logical Data Structure;
- Security Object.

- Crypto chip;
- Secure memory;
- AA/CA private key.

An ePassport can be viewed as a combination of:

- A **Virtual Component (VC)** consisting of the data contained in the chip;
- A **Physical Component (PC)** consisting of the booklet and/or cryptographic link between the VC and the PC and acts as an **authenticator** (second factor).

ICAO DTC Hybrid Model

- The Data from the chip is enclosed in a file structure and called a Virtual Component (VC);

- A device that can be cryptographically linked to the VC and is called the Physical Component (PC).

ICAO DTC Types

Three Types

1. eMRTD bound DTC

   - Chipdata is read from existing travel document creating the VC
   - The eMRTD booklet acts as the authenticator and can be considered a PC
   - Anyone can create this DTC

2. eMRTD-PC bound DTC

   - Chipdata is read from existing travel document creating the VC
   - Option to cryptographically link to a different physical device(PC) with the eMRTD as a fallback
   - Can only be created by the same authority that issued the eMRTD
   - DTC can be issued any time after the issuance of the eMRTD

3. PC Bound DTC

   - No eMRTD is issued, but only a PC with form factor different from an eMRTD
   - Can only be created by an eMRTD issuing authority
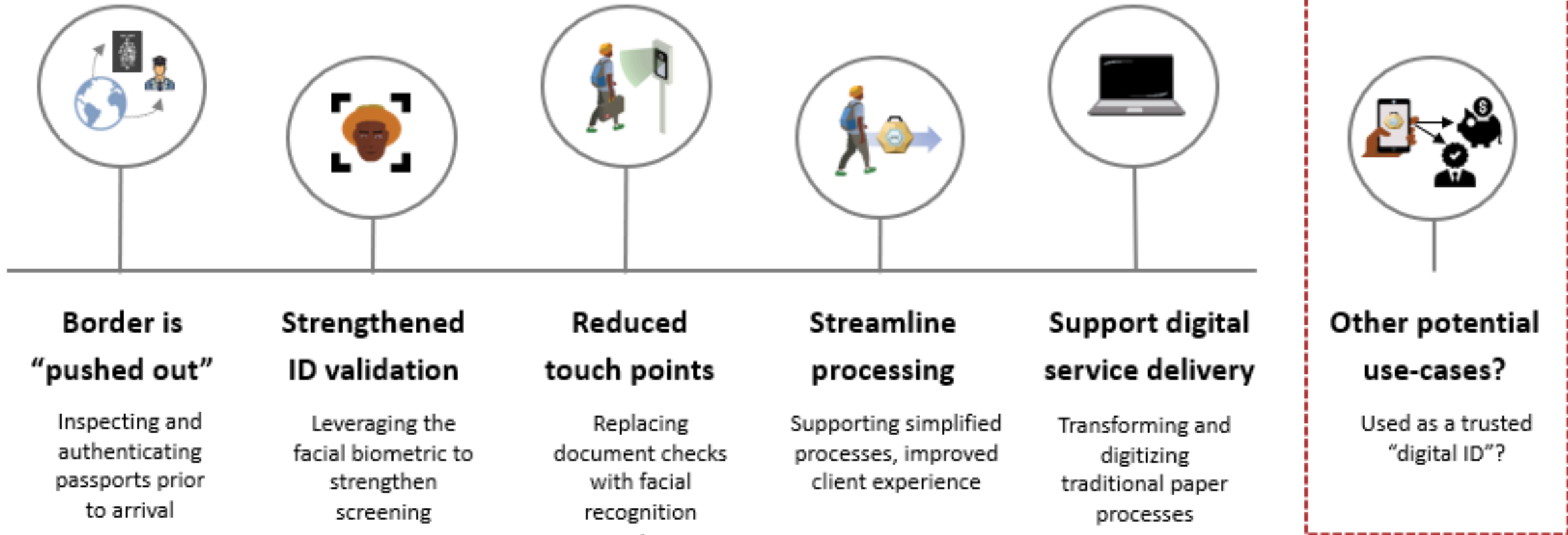   - No eMRTD available as a fallback

ICAO DTC Specifications

- ICAO DTC-VC Technical Report approved in 2020
- ICAO DTC-PC specifications divided into two phases
  - Phase 1 – maintain backward compatibility to the extent possible with existing inspection systems and replicate behavior of eMRTD – The Technical Report approved 2023
  - Phase 2 – investigate other form factors like mobile phones – currently a gap analysis is being conducted to identify the difference between policy requirements and technology landscape

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Use Cases :

- Seamless Travel
- Advance Travel Authorization (ETA/DTA/...)
- Improving border processing time
- Emergency Travel Document

Border is "pushed out"

Inspecting and authenticating passports prior to arrival

Strengthened ID validation

Leveraging the facial biometric to strengthen screening

Reduced touch points

Replacing document checks with facial recognition

Streamline processing

Supporting simplified processes, improved client experience

Support digital service delivery

Transforming and digitizing traditional paper processes

Other potential use-cases?

Used as a trusted "digital ID"?

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Finland Pilot

- European Commission initiated a pilot for DTC Type 1 – Finland, Croatia and Netherlands

- Will result in an EC Directive on the use of DTC at Schengen borders

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The next 4 slides are courtesy of
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THE MOTIVATION

- Increasing passenger flows

- Current full reliance on physical documents for international travel

- Increased digitalisation across different domains

- Emergence of new digitalisation technologies and lack of uniform approach

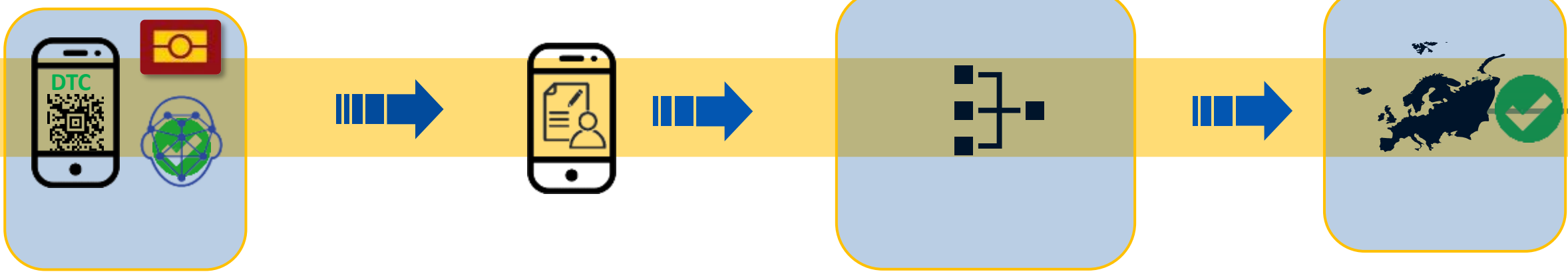→ **Problems:** security and less smooth travel

THE SOLUTION: DTC
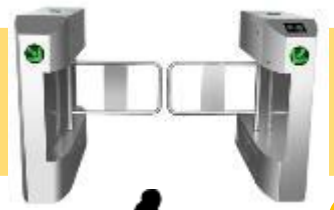
- The DTC seizes the opportunities by:
    - Increasing the efficiency and speed of border checks
    - Increasing data accuracy
    - Facilitating the boarding of transport vehicles with biometric matching

- **Additional advantage:** the DTC can be encrypted, ensuring higher security for the document holder

DTC derivation

Submission of DTC + data

Travel facilitation

(Pre-arrival) border check + notification via app

DTC

B3-B9

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Special Eurobarometer 536

Digitalisation of travel documents and facilitation of travel

A majority of Europeans are in favour of the use of digital travel documents when travelling to or outside the Schengen Area

24% Strongly in favour
44% Somewhat in favour
19% Somewhat opposed
9% Strongly opposed
4% Don't know

72% of Europeans think that the voluntary use of digital travel credentials will accelerate travel procedures (check-in, boarding, border checks) to or outside the Schengen Area

26% Yes, certainly
46% Yes, probably
16% No, probably not
6% No, certainly not
6% Don't know

Some of the **main concerns** related to the use of Digital Travel Credentials are soware failure, potential misuse, unintended access or disclosure of personal data, as well as device problems

What concerns, if any, do you have about using Digital Travel Credentials?

Software failure (the app is not working when I need it)	49%
Potential misuse of your personal data (for example, by the carriers)	48%
Unintended access or disclosure of personal data	47%
Device problems (for example, your phone being out of battery when you are at the border)	47%
Cyberattacks	40%
None	5%
Don't know	4%

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The next slide is courtesy of
Mika Hansson
Senior Adviser, Licence Administration
Police Operations Unit
National Police Board
Video provided by Finnish Border Guard

Operational Status of the FIN DTC Pilot

- First registration 28th August and first border check 1st September

- System is up and running

- Experiences have been good
  - Pilot is working as expected
  - Secure, easy to use, fast

- Pilot will end 31st March 2024

What next?

- Regulatory issues are the biggest challenge, not technical issues
  - Who owns the app
  - Who owns the created DTCs
  - Does the state have a responsibility to protect the DTC on your mobile phone
  - Ensuring that the DTC is sent to the right place (and ONLY the right place)
  - …..
- Does not make sense for every country to have it's own app – define common submission interfaces and allow for different apps to exist and submit to different use cases

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Thank you!

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