Mario Wiesen / Ciaran Carolan

Chair of the ICAO PKD Board / ICAO PKD Officer

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The ICAO PKD

In a nutshell
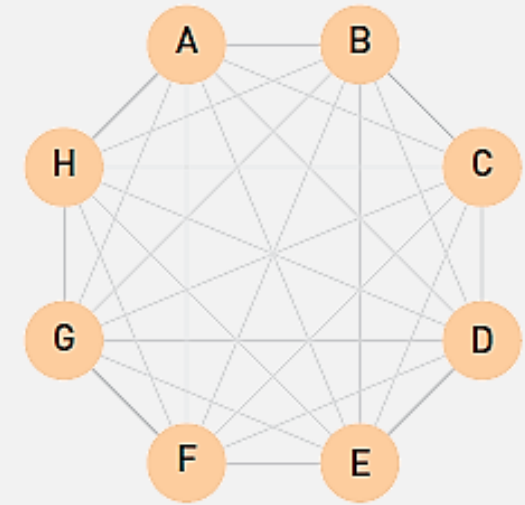
Electronic Verification of eMRTDs assures:

Authenticity
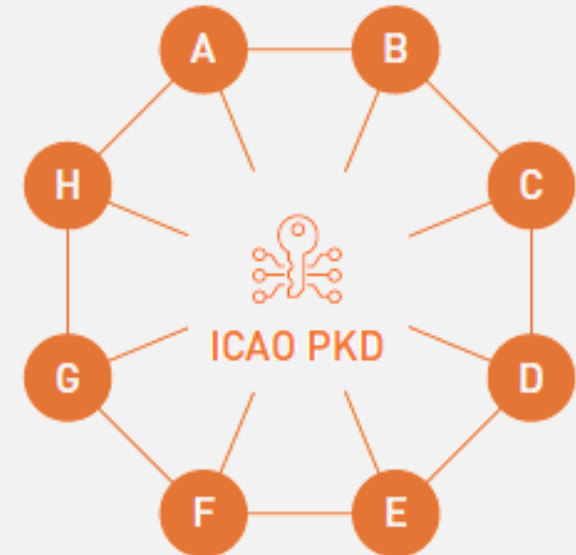
- Issuance by genuine authority

Integrity

- Data hasn't been changed since issuance (including the facial image)

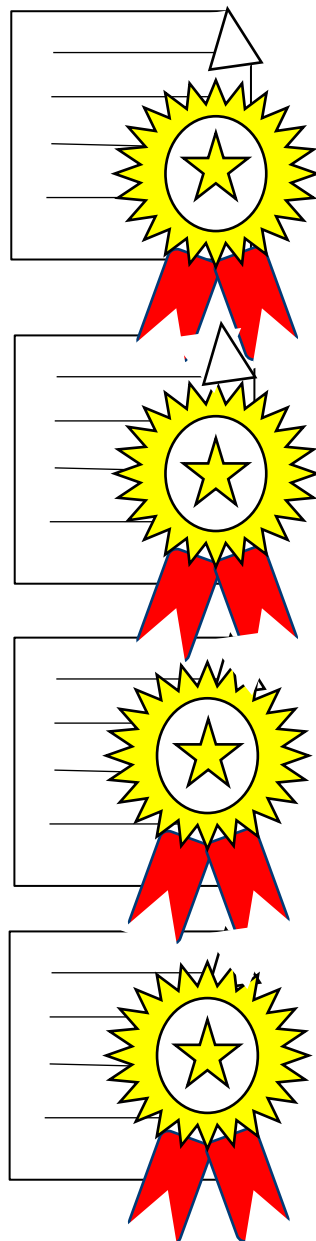**Electronic Verification needs availability of public keys**

Without the PKD

With the PKD

Public key Information in the ICAO PKD

Everything needed to validate the full ePassport certificate chain

= > A One-Stop Shop for ePassport Validation

CSCA certificates

DS certificates

CRLs

DLs

Encoded in the ICAO Master List (ML) and national Master Lists

Included in the main PKD repository

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Advancing the PKD to meet current and future needs

PKD Board priorities

Value for participants

Costs for participants

The ICAO PKD – complete, flexible, low cost and easy to use
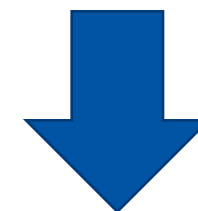
—**ICAO PKD** —**Bilateral ID schemes** —**Manual Passport checks**

⬆ Value

- Increase participation and use
- Intensify capacity building
- Include additional eMRTD certificates
- Build new partnerships
- Enhance flexibility to new developments

⬇ Costs

- Increase number of participants
- Retain technological simplicity

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The ICAO PKD Data Quality Coach initiative

↑ Value
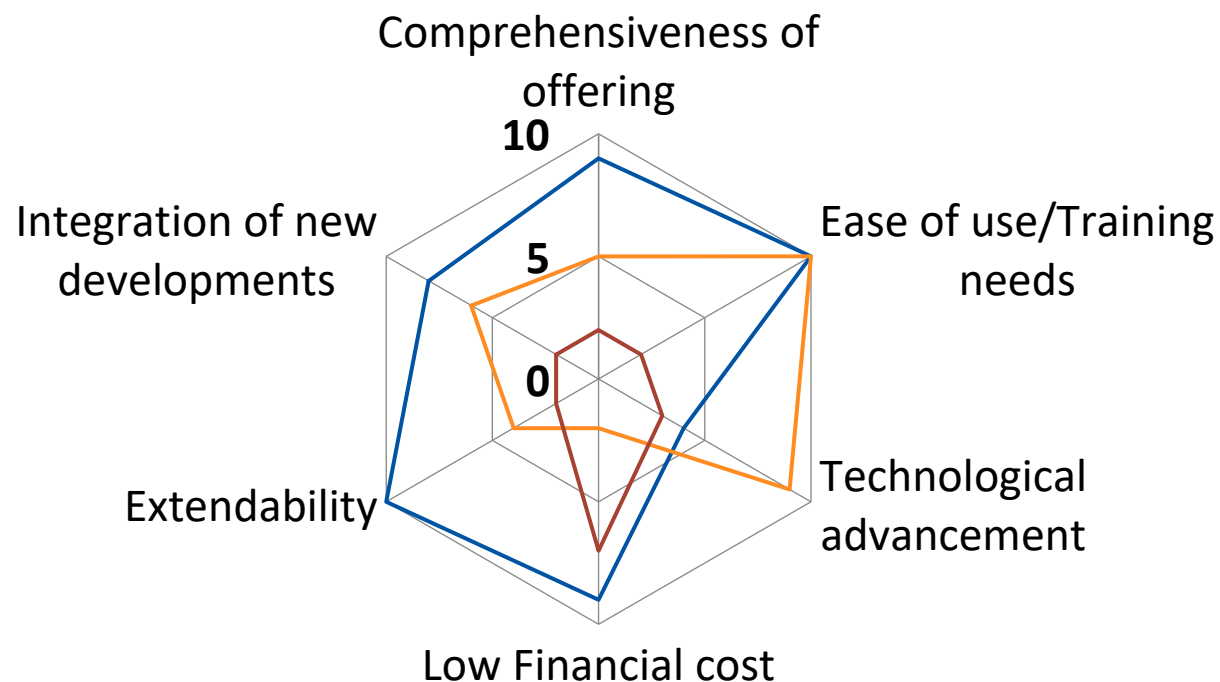
- Virtual calls to provide concrete support

- On-site visit to assess implementation and provide advice

- Follow-up support based on established relationships

The ICAO PKD Data Quality Coach initiative

2021-22- *Mongolia is the first recipient of the PKD DQ coaching program, supported by experts from Luxembourg*

2022 – *Further countries standing to benefit, beginning with Barbados, Cameroon and Uganda*

The program is open to all PKD participants, new and old, with selection of recipients based on submitted requests for support and geographic prioritization of the PKD Board year-to-year.

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ICAO PKD Workshop

Availing of all benefits of ICAO PKD participation: Considerations from operational and implementation points of view

Speke Resort Munyonyo, Kampala, Uganda

15 November 2022

- For existing PKD participants and representatives of States interested in possible future participation (separate tracks offered)

- Dedicated sessions for decision makers, operational staff and technical senior officers

- Objectives include:

o Enhancing understanding and awareness of ePassport PKI and the relevance of the PKD

o Supporting national implementations are optimal and ensure that all benefits are realized

o Facilitating exchange of information and perspectives

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The ICAO PKD Private Sector Use Pilot

Value
Cost

Grow participation amongst all who can benefit from the PKD in line with ICAO objectives

- Development of solutions by the private sector based on PKD data can enhance global capabilities to properly authenticate electronic travel documents
- Airlines/airports are asked to verify documents – we need to give them capabilities to do so!

Ensure that the PKD can support future development of globally interoperable solutions

- Standalone solutions from industry could help States more rapidly incorporate capabilities for authenticating new electronic documents (e.g. VDS-NC)
- Private sector usage can motivate improved usage of the PKD by States

Pilot project launched in 2021

Main principles

- Six month pilot period with collection of information and perspectives towards the end to direct next steps
- Usage of the existing public download capabilities to eliminate any need for capability development
- Authorization given based on derogation from defined Terms and Conditions on the PKD public download site
- Administration by the Secretariat, oversight by the PKD Board through Secretariat reporting
- Full alignment with the MoU approved by Council

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Status of the pilot
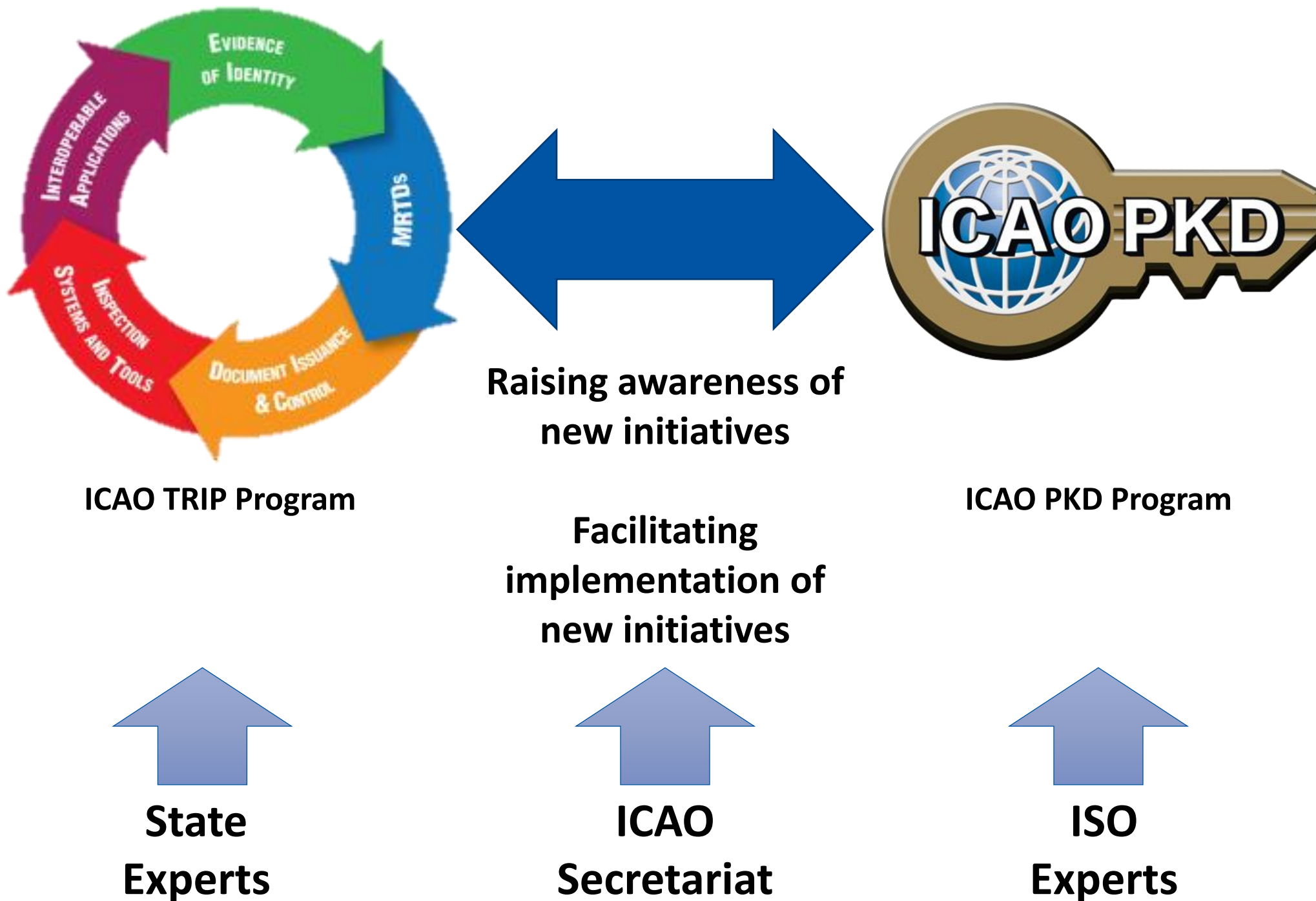
15 — Companies enrolled, more candidates expressing interest

23 Dec 2021 — Pilot kick-off

May 2021 — First Participant survey

31 March 2023 — Pilot end date

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ICAO TRIP Program

Raising awareness of new initiatives

Facilitating implementation of new initiatives

ICAO PKD Program

State Experts

ICAO Secretariat

ISO Experts

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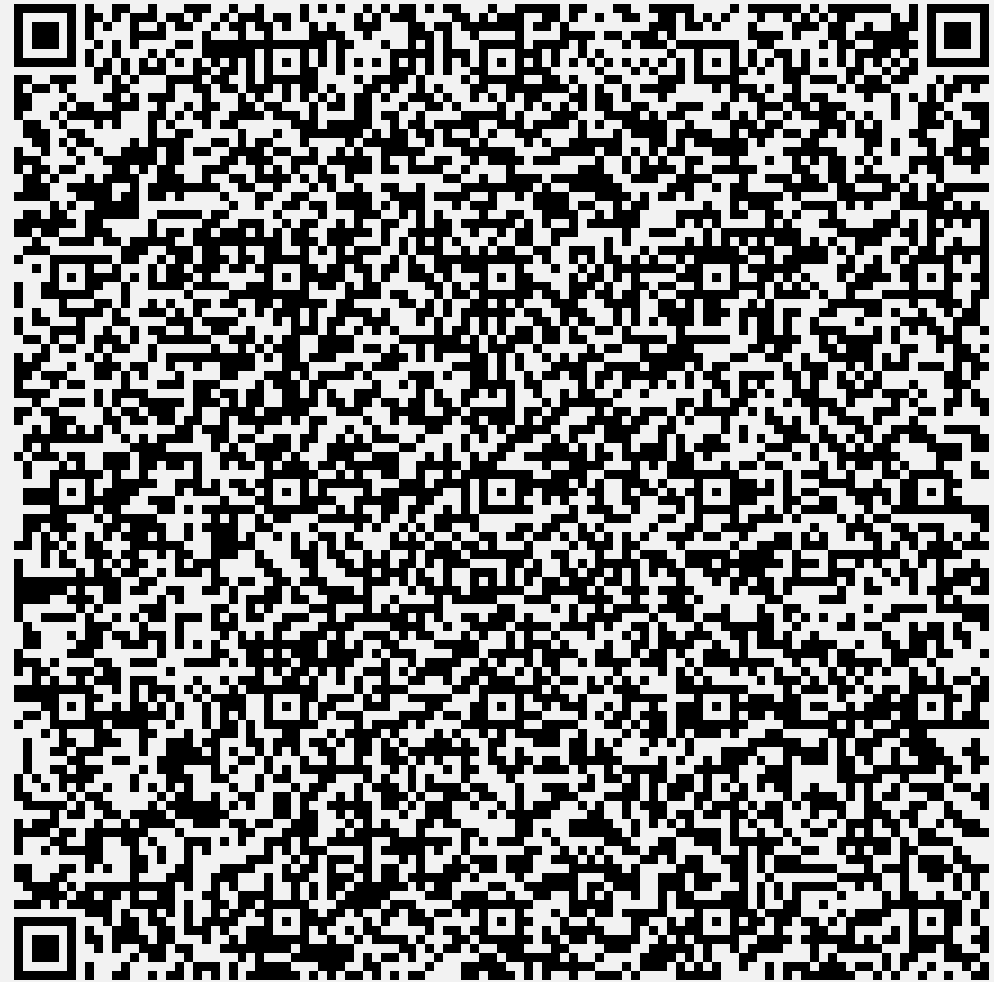ICAO

Supporting validation of ~~ePassports~~

eMRTDs

The ICAO Health Master List

Supporting use of the ICAO VDS-NC

- Public Key Infrastructure approach generally follows that of ePassports

- Trust anchor can be an existing CSCA or a different CA used for health proof purposes

- Encoding of the barcode signer certificate in the barcode is optional

  - International distribution mechanism needed for sharing of the health-oriented CA certificates and (preferably) the barcode signer certificates

-> The ICAO Health Master List

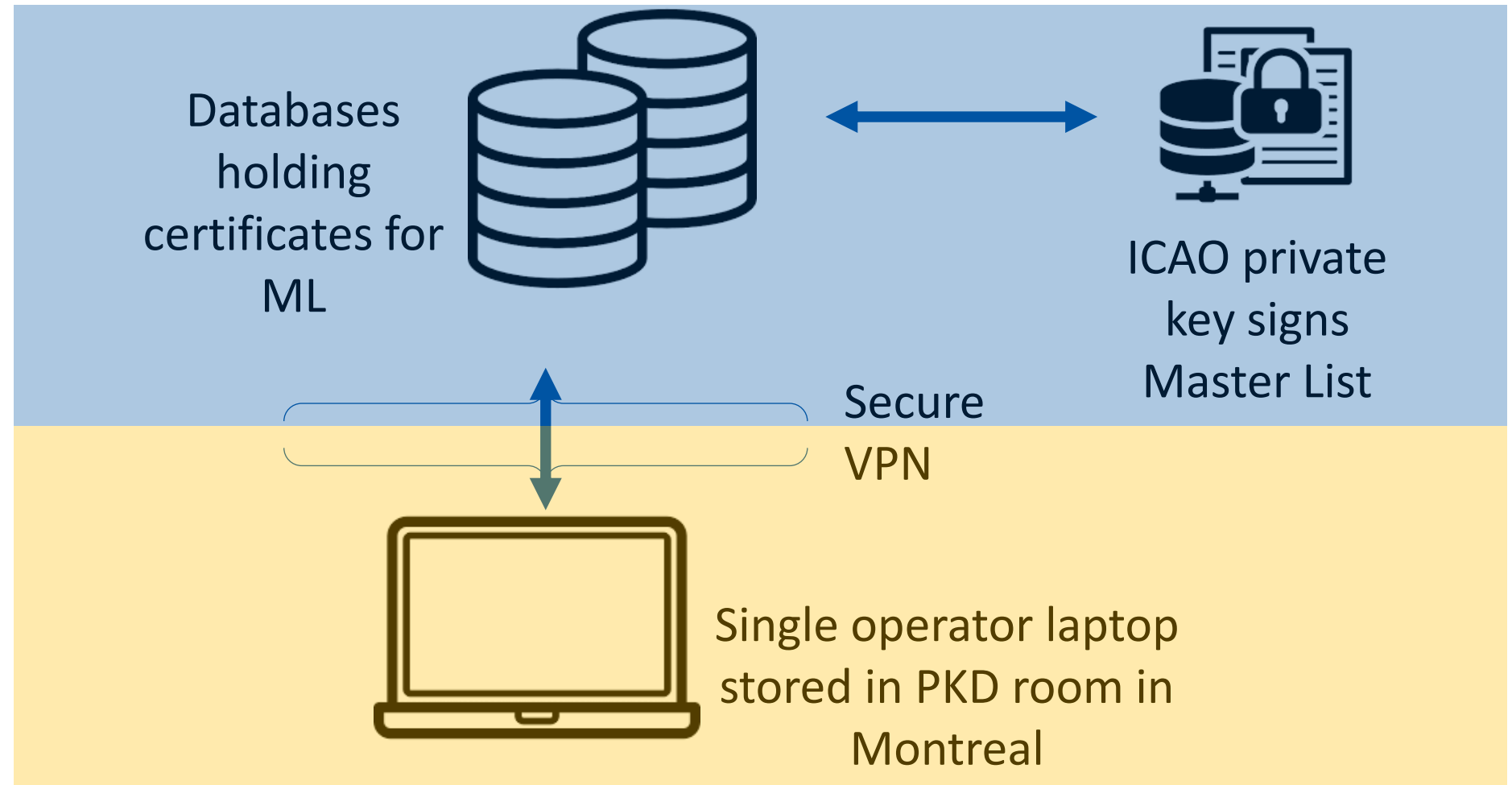# Global PKI in support of international health proofs for travel

The ICAO Health Master List

- All that is required to assure authenticity and integrity of VDS-NC
- Sharing trust anchors for international health proofs

Collaboration with INCERT LU -> free of charge for ICAO and for participants
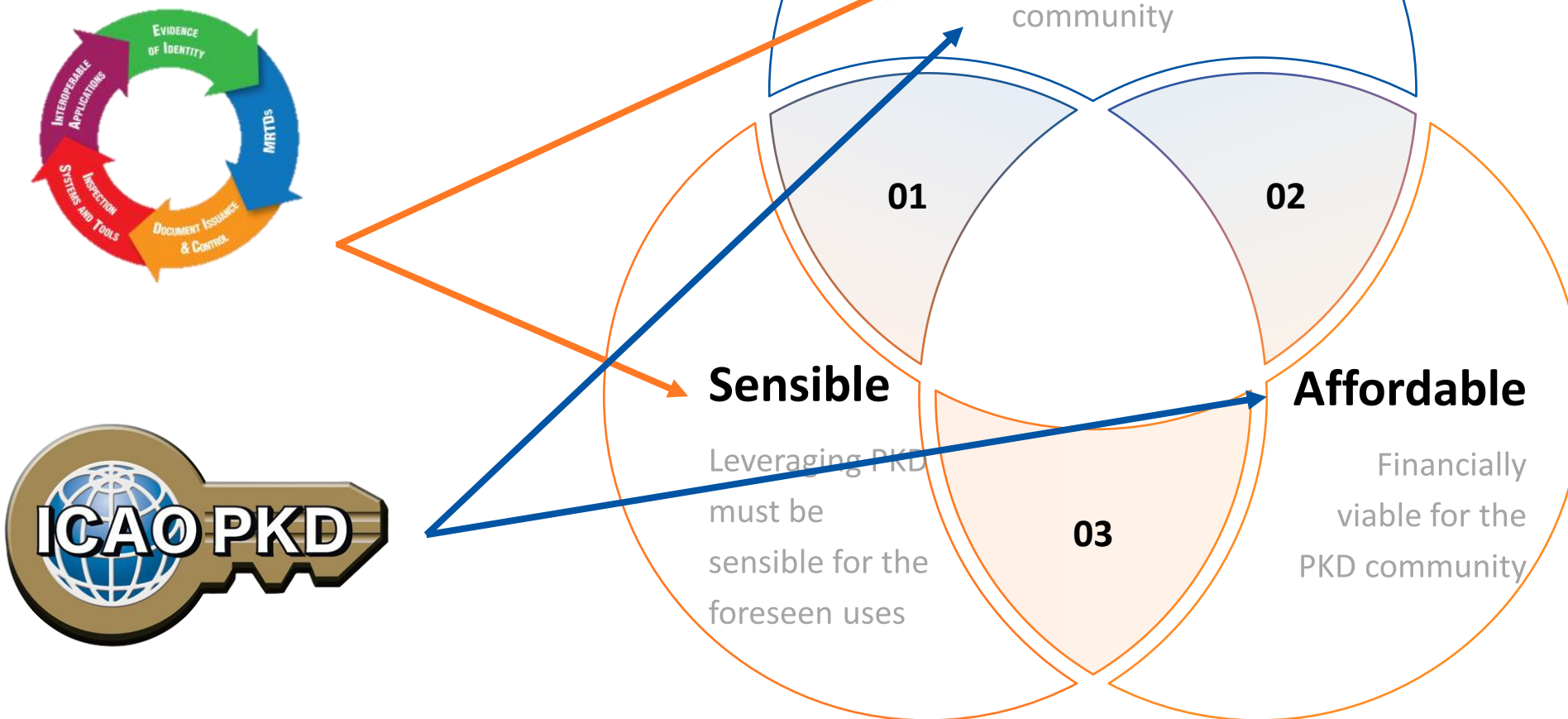
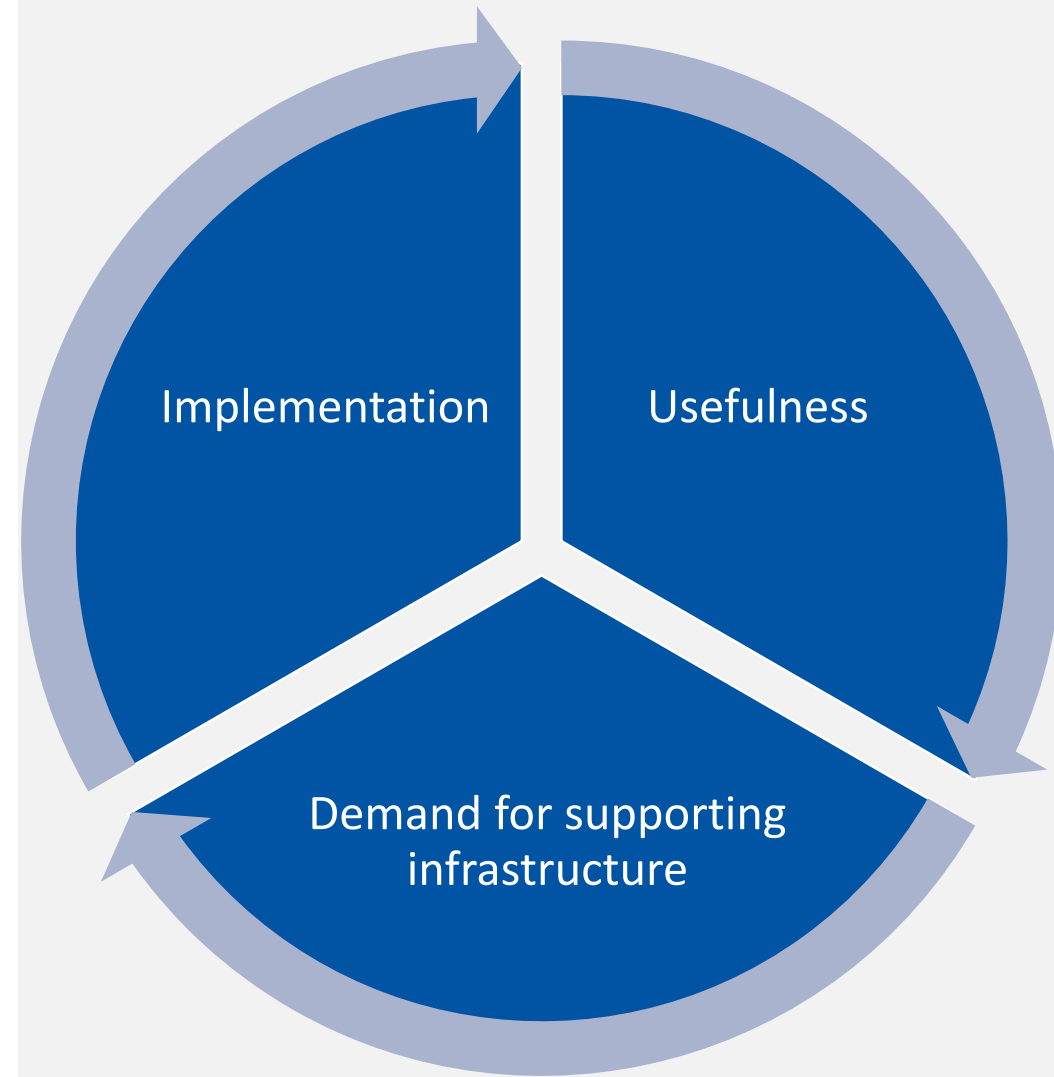# Visible Digital Seals (VDS) for Non-Electronic Documents –Part 13, 9303, 8th Edition

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VDS Barcode Signers in the ICAO PKD?
Discussion continues

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Useful

Benefits for the PKD community

01

02

Sensible

Leveraging PKD must be sensible for the foreseen uses

03

Affordable

Financially viable for the PKD community

TRIP-PKD Cooperation is essential

- Vital that specification development goes hand-in-hand with PKD implementation planning to the greatest extent possible

- Common awareness of interrelations critical within WGs and governance structures

- Mutual interest in capacity building and implementation support implies cooperation in this area

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Implementation

Usefulness

Demand for supporting infrastructure