ICAO Facilitation Regional Forum

Ulaanbaatar, Mongolia
7 to 8 July 2025

Hosted by:

GOVERNMENT OF MONGOLIA

The ICAO PKD – The most valuable component of your back-end border infrastructure?

A Tale told in Six Chapters

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ICAO Secretariat, Facilitation Section

Once Upon a Time

~~Fairy Tales~~

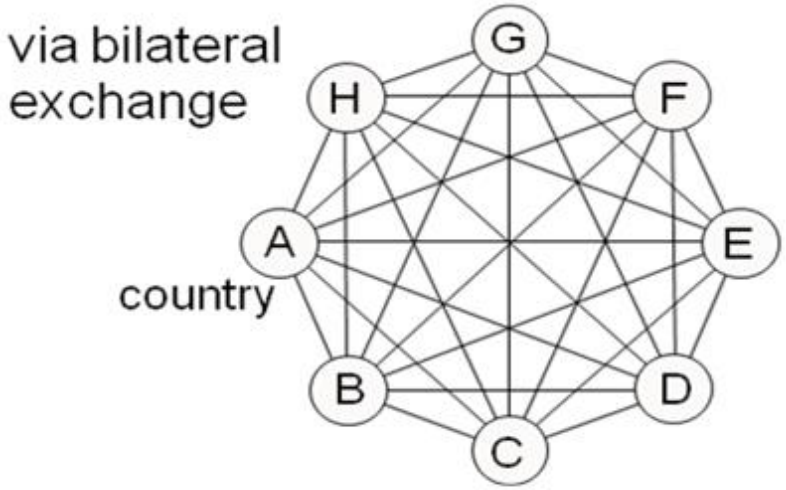
Facts and Insights to inform your future strategic planning!

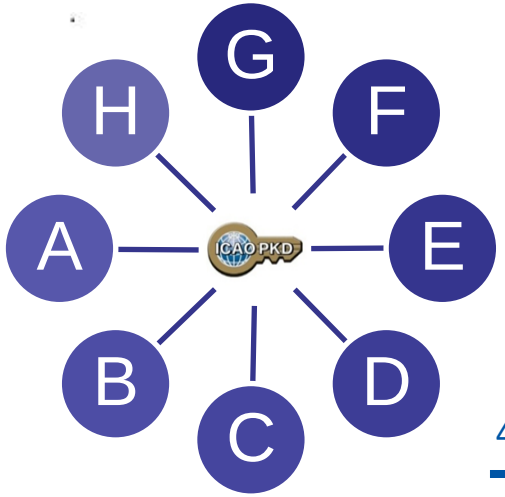
What is the ICAO Public Key Directory (PKD)?

A central repository of data to verify electronic and digital travel documents (e.g. ePassport)

These documents are **digitally signed.**

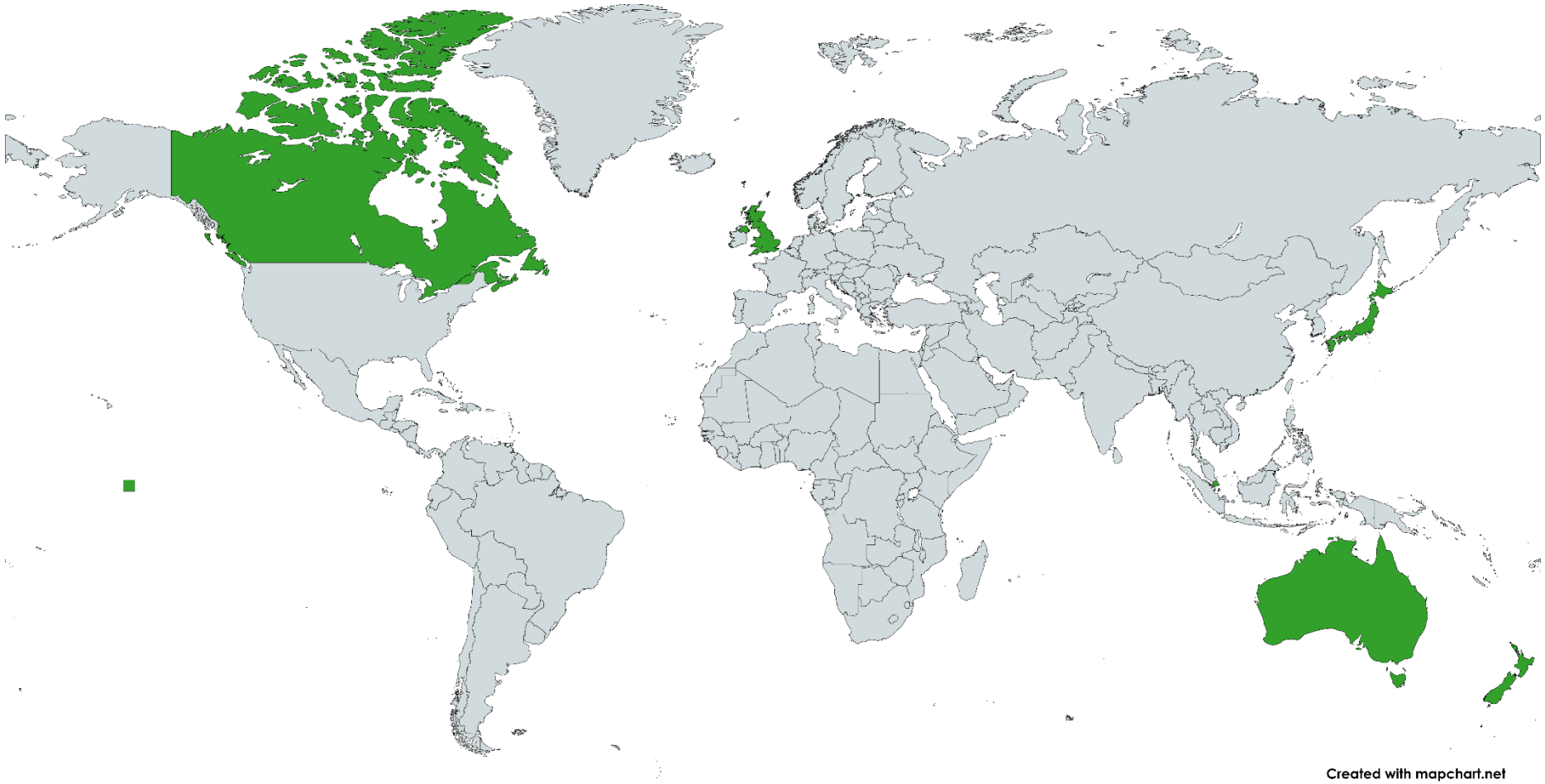
A verifying authority (e.g. border authority) needs **public keys provided by the document issuing authority** to verify this digital signature





Number one:
A Tale of Size

Once Upon a Time



Fast Forward to Today

FAL Regional Forum

The ICAO PKD

A comprehensive and trustworthy resource

The ICAO PKD contains data provided by programme participants.

More participants => More data shared

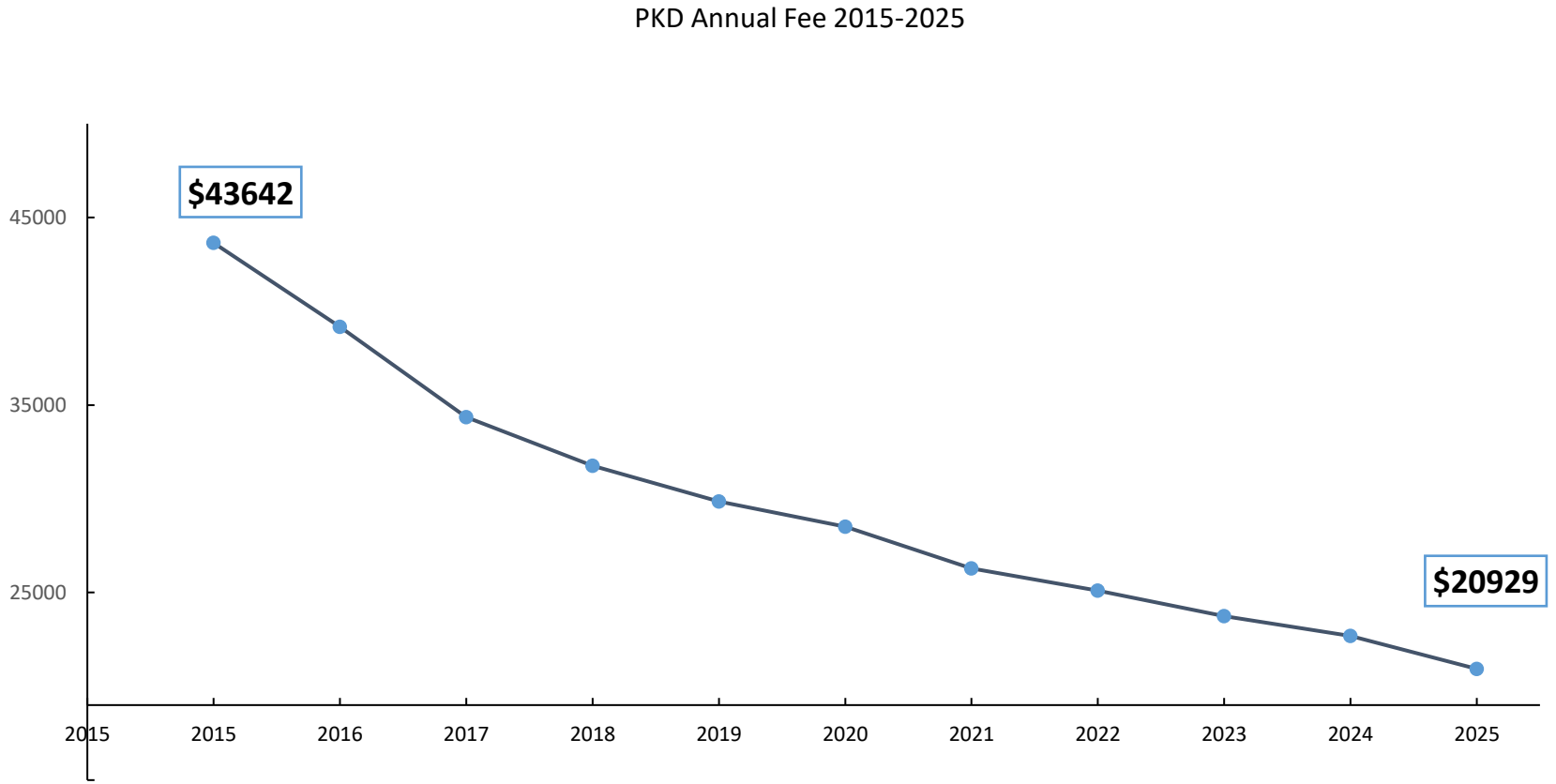
More data => Improved capacities for document verification

All data in the ICAO PKD is received based on provision of this data in a **diplomatic handover**

=> **Value** to document issuing authorities and border authorities based on **comprehensiveness** of **trustworthy** data

The ICAO PKD

An Accessible Resource



02

Number 2: A Tale of Need

Once Upon a Time

Few ePassports in circulation

2004 – First ICAO ePassport standard

2007 – ICAO PKD established

Fast Forward to Today

Majority of Passports are ePassports

- >160 States issuing ePassports
- c. 90% of passports in circulation are ePassports

The ICAO PKD

A needed resource

ICAO Annex 9

3.9.3 Recommended Practice.— Contracting States implementing checks on eMRTDs at border controls should join the ICAO PKD and use the information available from the PKD to validate eMRTDs at border controls.

The majority of checks at many borders will be on ePassports (eMRTDs).

=> **Value** to border authorities based on availability of **data needed for the majority of border checks**

03

Number 3: A Tale of usefulness

Once Upon a Time

The only eMRTD was an ePassport

Fast Forward to Today

DIGITAL TRAVEL AUTHORIZATION
notification of decision

AUTHORIZATION APPROVED

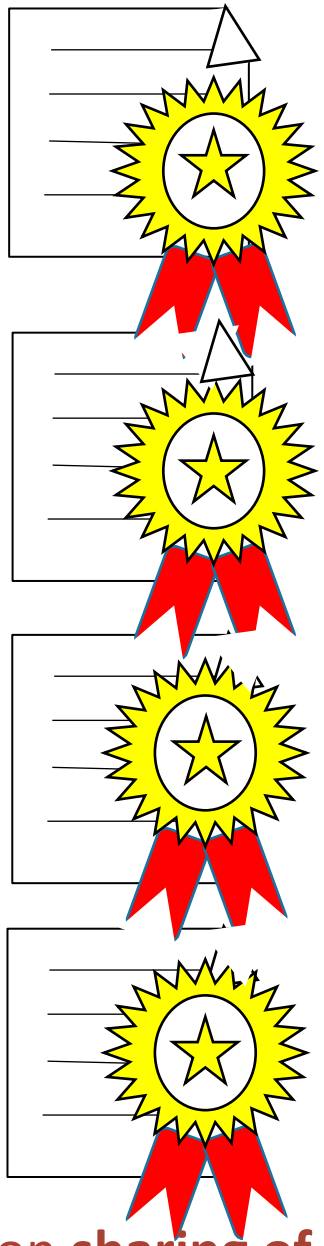
Name	ANNA MARIA ERIKSSON
Passport Number	L8988901C
Date of Birth	11 March 1952
Nationality	United States of America
Sex	Female
DTA Number	123889546
Issuing Country	Utopia
Place of issue	Peacetown
Valid from (date)	10 December 2020
Valid until (date)	10 December 2025
Duration of Stay	5 years
Number of entries	Multiple
Type/class/category	Tourist
Additional information	Employment Prohibited

You have successfully submitted payment for the application listed above. A request by the cardholder to the bank or your payment service for a refund of fees will result in an automatic denial of the application.
Download and print out this form and retain throughout your travel.

The ICAO PKD

A multi-purpose resource

- **ICAO Master List** introduced in 2020 provides the root of trust CSCA certificate for ALL electronic and digital documents
- **Barcode Signer Certificates** for all Barcode types can be shared since 2023



CSCA certificates

DS and BCS certificates

CRLs

DLs

A one-stop shop for electronic and digital document verification

⇒**Value** to document issuers based on **sharing of data for a variety of document types**

⇒**Value** for border authorities based on **flexibility** to **verify different documents** from international issuers

04

Number 4: A Tale of Cooperation

Once Upon a Time

The ICAO PKD was a limited and somewhat exclusive club

- Few participants
- Better resourced States with specialized capabilities

Fast Forward to Today

CERTIFICATE

OF COMPLETION

THIS CERTIFICATE IS AWARDED TO

Ciaran Carolan

Workshop

Electronic Machine Readable Travel Documents, Public Key Infrastructure and the use of the ICAO Public Key Directory (PKD)

Mastering technology and organization to enhance international trust in travel documents

7 November 2023
Willemstad, Curaçao

ICAO PKD

MARIO WIESEN
Chairperson, ICAO PKD

The ICAO PKD

A community of practice

- **Regular workshops** for all participants
- A formal **coaching programme** where experience members mentor participants, funded by the ICAO PKD
- **Regional and international networks** of support
- **A vibrant community** – support benefits everyone!

⇒**Value** to national authorities based on **support available to maximise benefits from participating in the PKD programme** and the **insights and expertise available from international exchange**

05

Number 5: A Tale of Strategy

Once Upon a Time

1.1 B

Asia-Pacific passenger numbers in 2014

Reflecting 33% of Global air traffic

Fast Forward to the near future

4.1 B

Anticipated Asia-Pacific passenger numbers in 2043

More than 50% of Global Air Traffic

The ICAO PKD

A necessary resource for the modern border

Travel demand, infrastructural limitations and pressures on border management require:

- More **efficiency**
- More **flexibility**
- More **consistency** in checks

ICAO Annex 9

3.33.5 Contracting States utilizing ABC systems should, pursuant to 3.9.2 …use the information available from the PKD to validate eMRTDs….

⇒**Value** to national border authorities based on **fundamental importance in automating checks** and obtaining associated benefits

See the **ABC Cost-Benefit Analysis tool** at https://www.icao.int/Security/FAL/PKD/Pages/ABC_CostBenefitAnalysis.aspx

06

Number 6: A Tale of necessity

Once Upon a Time

Fast Forward to Today

- More spacious facilities
- More adaptable and flexible processes and tools

- More flexibility in issuance of digital documents
- More readiness to verify different digital documents in travel

The ICAO PKD

A basis for agility in border processes

Pivoting to new digital formats and processes

The ICAO Health Master List was quickly implemented through the ICAO PKD to provide the data needed to verify digital health credentials presented during travel

BUT

Quick and proper use required existing national infrastructure and capabilities

⇒ Connect to and Use the PKD NOW

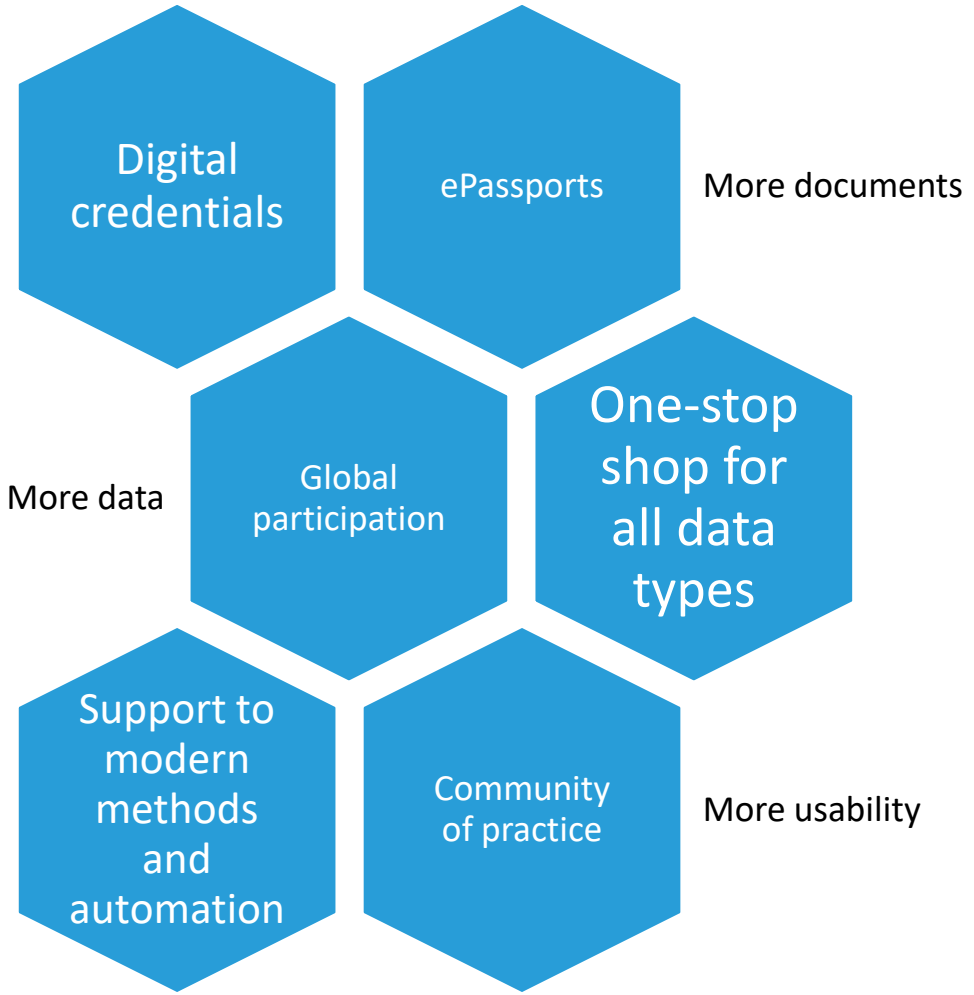
⇒ Become **resilient** to situations needing updated processes, issuance of or verification of new credentials LATER

⇒ **Value** to national authorities that may need an international distribution mechanism for new public keys in crisis situations

⇒ **Value** to national border authorities who can quickly **pivot** processes and capabilities to new needs **when the PKD is part of the existing back-end infrastructure**

Concluding

The ICAO PKD – a vital border resource



Once Upon a Time

- The ICAO PKD was something that was nice to have

Today

- The ICAO PKD is a key component of border infrastructure and increasingly important for quality delivery demanded by all

Thank You

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(NACC) Office
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(ESAF) Office
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Lima

Thank You

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