



International Civil Aviation Organization

## Sixth Symposium and Exhibition on ICAO MRTDs, Biometrics and Security Standards

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# Evidence of Identity - a cornerstone of a secure travel document

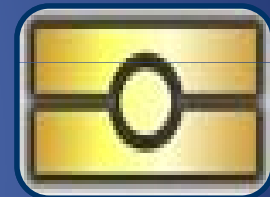
Annette Offenberger

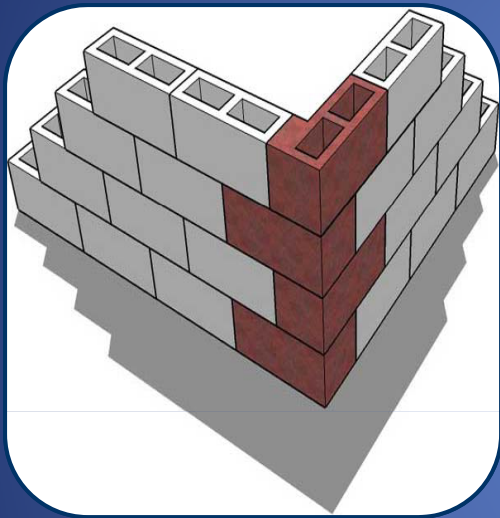
Chair

ICAO Technical Advisory Group  
for Machine Readable Travel Documents  
TAG/MRTD

# Background

- Technical and physical security features, and increased checking at the border, is making it more difficult to produce counterfeit travel documents
- As quality and integrity of the physical travel document improves, weaknesses in the issuance process will be targeted
- Poor issuance processes can undermine the integrity of the travel document and the State's investment in secure technology





Using robust processes to establish the identity of an applicant is a cornerstone of secure travel document issuance



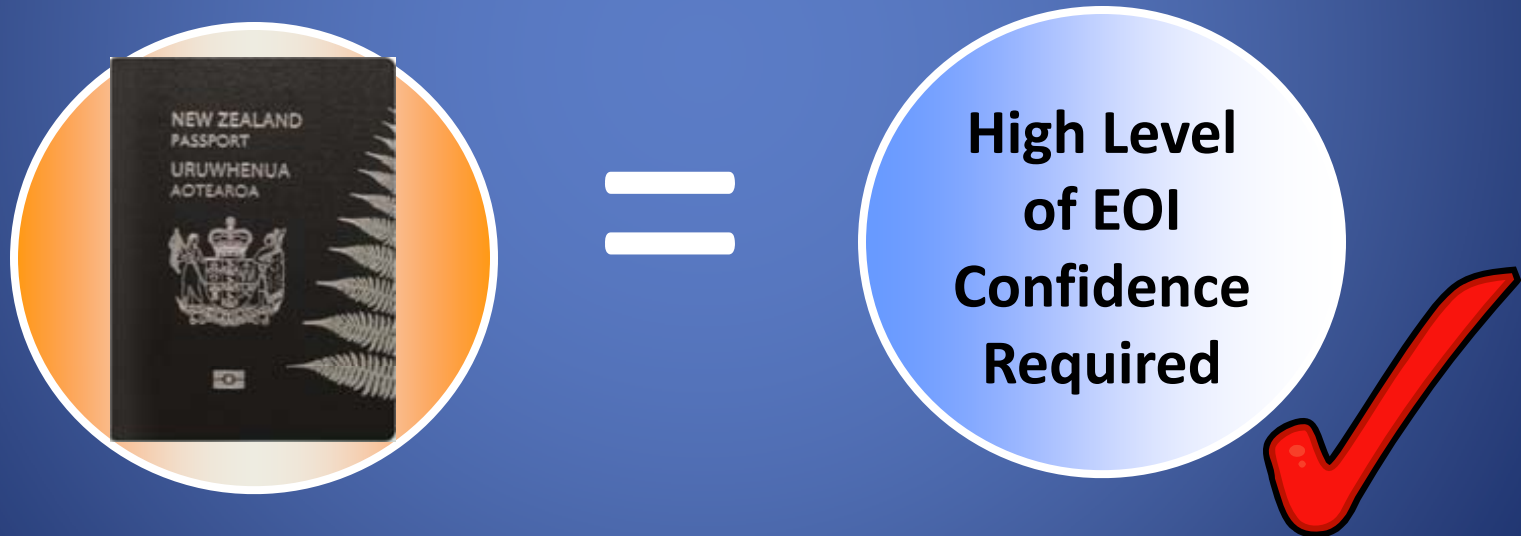
# Evidence of Identity (EOI)

- EOI is growing internationally as an area of focus
- Some States have developed national standards and frameworks
- Other States employ robust EOI processes as part of their issuance process without developing standards at a national level



# Risk-based EOI

- EOI requirements should be relative to the risks and downstream effects of providing the product or service





# EOI Authentication Principles

Identity  
Exists and is  
Living

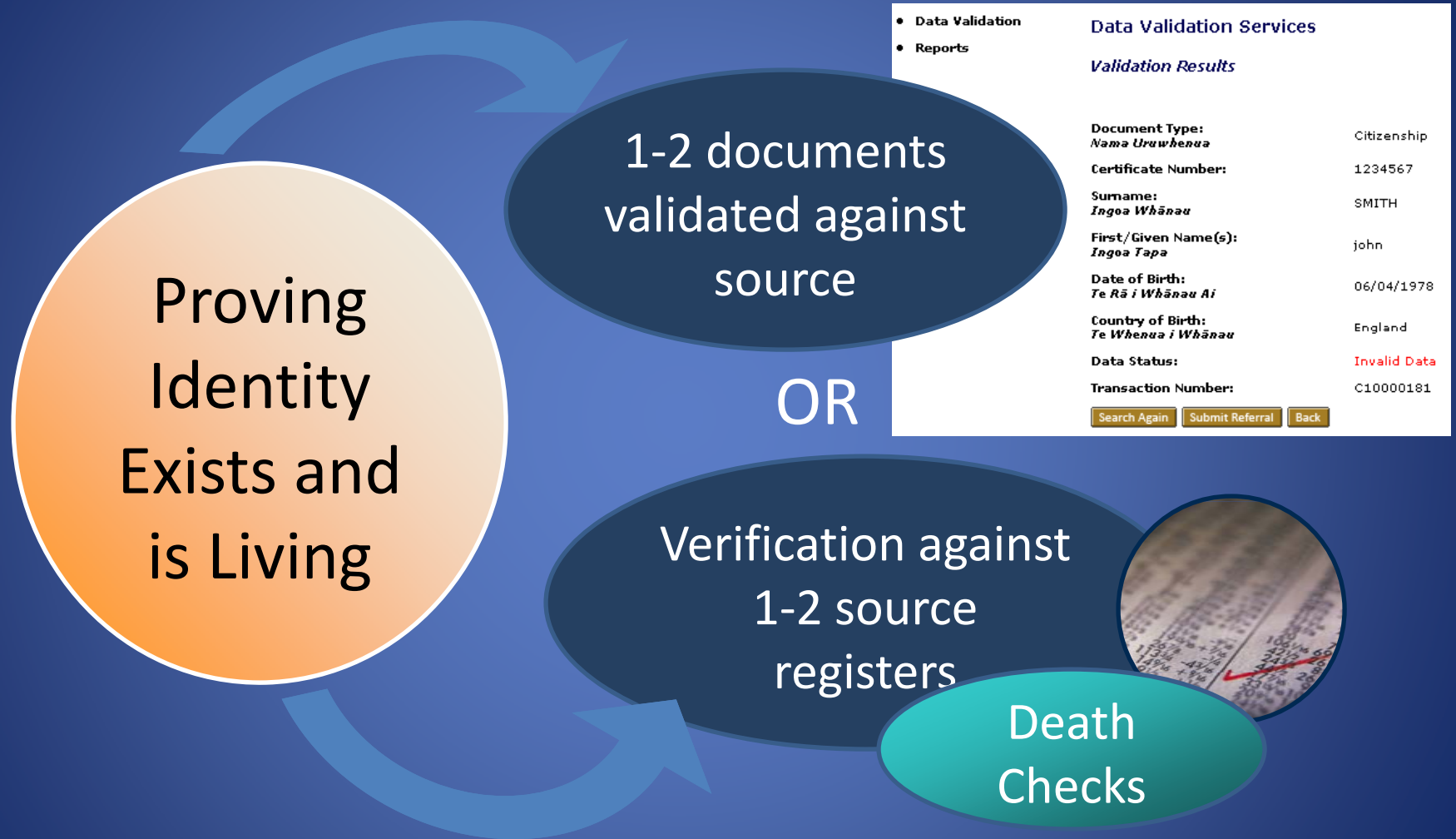
Applicant  
Links to  
Identity and  
is the Sole  
Claimant

Applicant  
Uses  
Identity in  
the  
Community

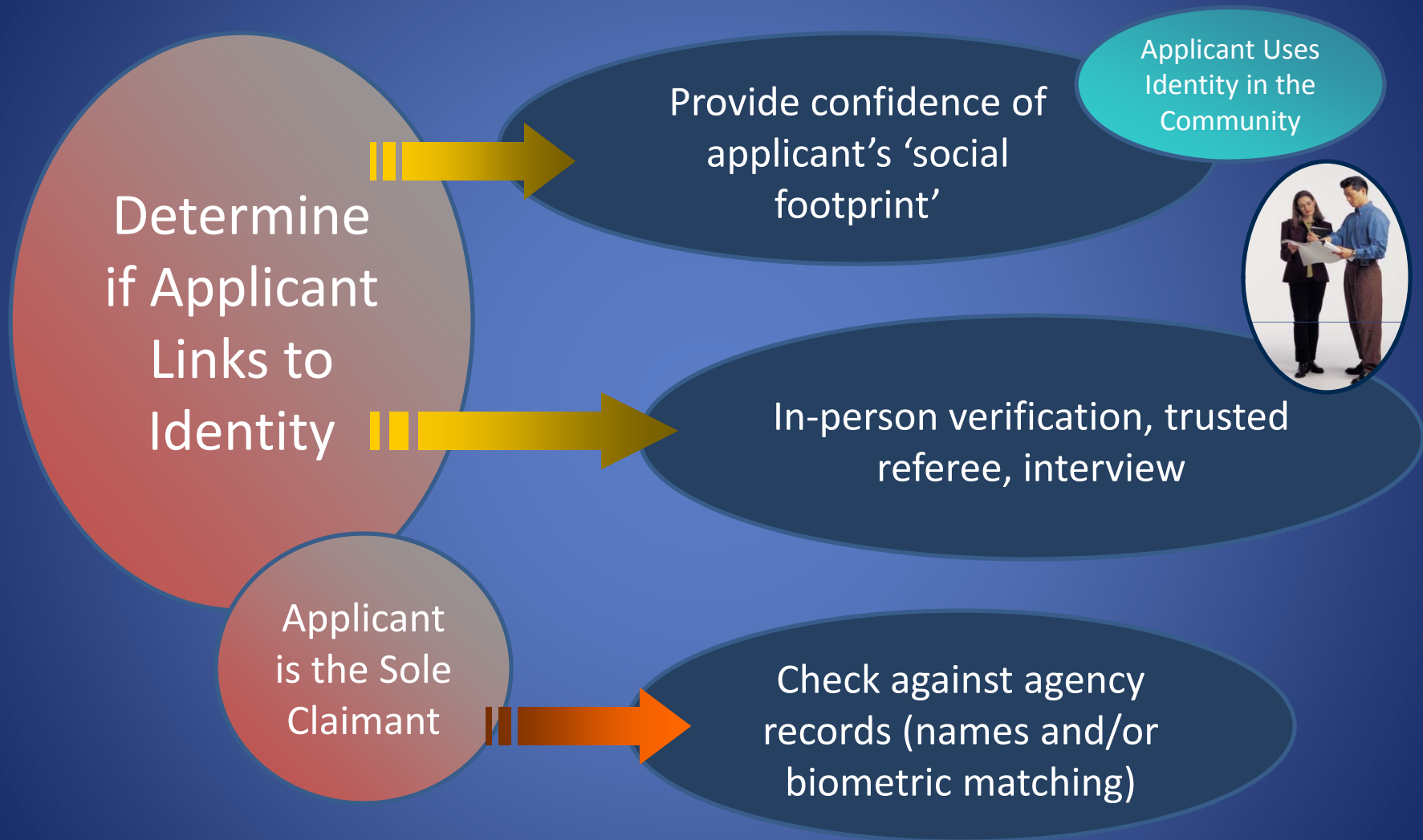
- First-time interaction **MUST** be robust so that subsequent contact can leverage off initial EOI



# EOI Principle 1: Proving



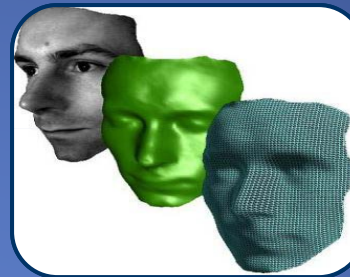
# EOI Principles 2 & 3: Linking





# Final Step: Binding

Binding to  
Biometric



Associating the  
record/data with  
one or more  
biometrics





- Different challenges for different issuing authorities
- Legislative environment can have an impact on information sharing/validation



# EOI Analysis

- EOI information stock-take



- Analysis of each potential document or record and its value in an EOI process

Process for  
Registration of  
Birth



Citizenship  
Process



# EOI Analysis (2)

- Confidence that an identity is operating in community is becoming increasingly important to issuing authorities
- Less confidence in civil registry information may result in need to increase EOI confidence in other areas ('social footprint')
  - electoral role
  - school and hospital records
  - driver and firearms license
  - utility bills / bank records





# Evolving EOI

- Applying EOI is an evolving process – as technology/environment changes, States need to adjust
- EOI and technology must move forward together





# Biometrics

- Every State already collects face biometric – potential for Facial Recognition
- Give confidence to linking process, and that the applicant is the sole claimant
- Scale of deployment can be ‘fit for purpose’ to complement back office risk profiling and data mining
- Can benefit productivity as well as improving integrity



# Applying EOI

## Case Study – New Zealand

- EOI Standard first published in October 2006 (revised 2009) as part of a suite of Authentication Standards
- Multi-agency development
- Adopted across government, including:
  - Inland Revenue (Tax)
  - Transport Authority (Driver License)
  - Ministry of Social Development (Welfare Benefits)



# Case Study – New Zealand (2)

Proving  
Identity  
Exists and  
is Living

Verification against  
1-2 source  
registers

Death  
Checks

- EOI Standard is integrated into passport issuance process
- Electronic access to authoritative source registers to verify NZ life event details
  - name at birth, parent's details, name change and marriage/civil union details
  - verification against citizenship database
  - death checks
- No longer rely on physical documents so no risk of counterfeits

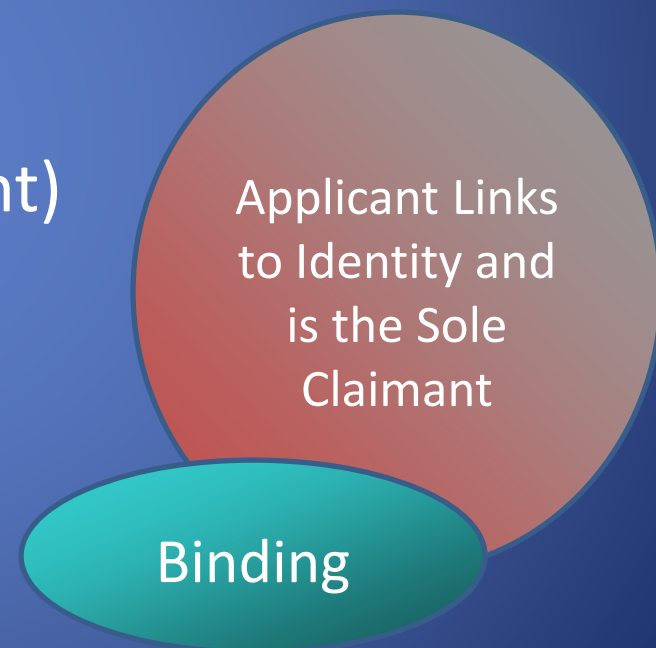


# Case Study – New Zealand (3)



Trusted referee (NZ passport holder)

- Previous passport records
- Facial recognition
  - 1:n matching (sole claimant)
  - watch-list
  - adult renewals



# Case Study – New Zealand (4)



- NZ has high confidence in registry information, so less emphasis has been placed on evidence of 'social footprint'
- NZ moving towards automated checks, including social footprint (electoral role), other government databases, and possibly private sector information
- NZ source documents and data are from public registers – robust back-office checking/validation can still result in high EOI confidence





# Key Points

- Broad EOI concepts are applicable to any passport issuing organization
- Passport issuing authorities need to develop a framework – approach EOI in a systematic way
- Evaluate and understand EOI environment

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# Support and Guidance



- EOI Guidance material
  - New Zealand EOI Standard (available at [www.dia.govt.nz](http://www.dia.govt.nz))
  - Australia Gold Standard Framework
- ICAO New Technologies Working Group is developing guidance material
- ICAO Implementation and Capacity Building Working Group can assist with assessments and developing robust EOI processes for TD issuance





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