The Evidence of Identity (EOI) Approach

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Things Mr Dharwadker probably almost certainly would have said …

- Identity is **diverse, dynamic and complex**

- There is **no "silver bullet"** and **no "one-size-fits-all"** to establishing identity

Principle 1 - Identity Exists

Objective A - The identity exists (i.e. is not fictitious)

Objective B - The identity is living

Principle 2 - Applicant links to Identity

Objective C - The presenting person links to the identity

Objective D - The identity is UNIQUE to your system (i.e. only has one claimant)

Principle 3 - Applicant uses Identity

Objective E - To provide confidence of the presenter's use of the identity in the community

At the end of this presentation

- Know what an 'Evidence of Identity Approach' is and how you might apply it to your own context

- Biometrics is part of the solution, but …

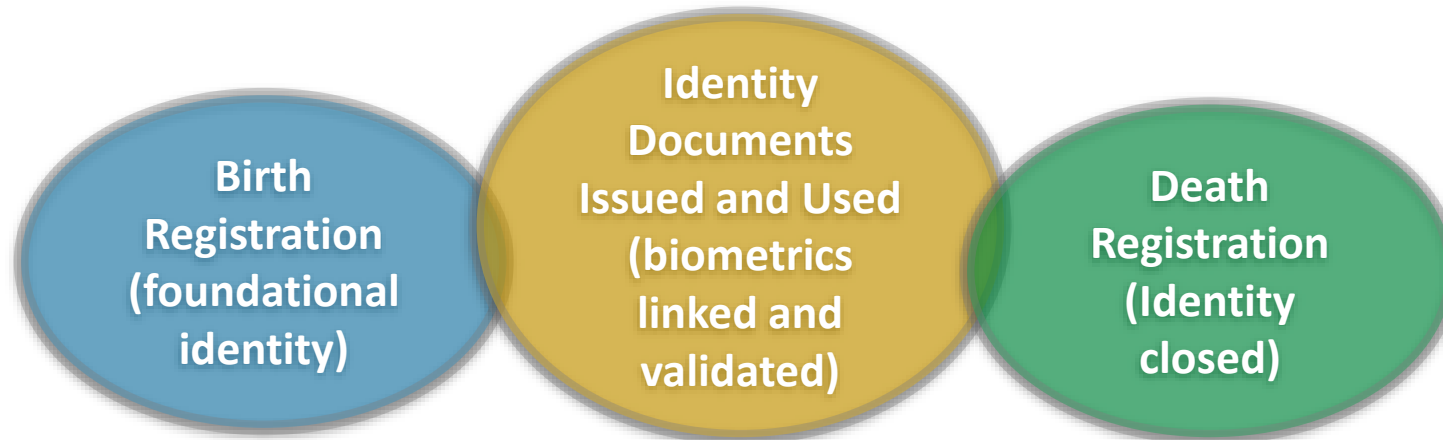- Some exciting and scary stuff

Biometrics is NOT this Greek goddess

The problem

Oh no

- As the security and integrity of physical travel documents improved there was a move away from counterfeit passports

- Weaknesses in passport issuance processes increasingly targeted

- Genuine passports that have been falsely obtained are much harder to detect at Border

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Traditional Identity Chain

Birth Registration (foundational identity)

Identity Documents Issued and Used (biometrics linked and validated)

Death Registration (Identity closed)

BUT ... we have biometrics right?

Identity Documents Issued and Used (biometrics linked)

Data clean-up $$

Deduplication $$

Multi-modal biometrics $$

Thanks Panacea ... you were pretty close

Unique to your System

Most important aspect of any identity system … but not the only one.

Is the biometric anchored to a genuine biographical identity, and does it belong to the claimant?

Still have Fraud? Yes you do.

Custom NZ tightens rules after 'unruly' tourist James Nolan flees

MELANIE EARLEY · 16:22, Apr 11 2019

James Nolan deliberately evaded authorities by using an eGate and a passport that belonged to someone else.

Customs NZ has tightened its processes after a man travelling with a group of 'unruly tourists' fled the country while facing multiple charges, including assault, driving and fraud charges.

Customs officers would now always conduct face-to-face checks when eGates reject a passenger, Minister of Customs Kris Faafoi said on Thursday.

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Human Factors

- FR technology is **WAY more accurate than people**
  - Exceptions go to people
  - People don't know they can't match
- Facial Recognition Aptitude
  - 20% potential 'Super Matchers' (90% or above)
  - 20% of concern (70% or below)
  - Testing must be part of recruitment
  - Joined up training with border sector
- University of New South Wales (FR Study)
  - Training makes 5% difference
  - How does this affect recruitment and workforce?
  - Think about exception processing

NIST - "Morphing is Easy"
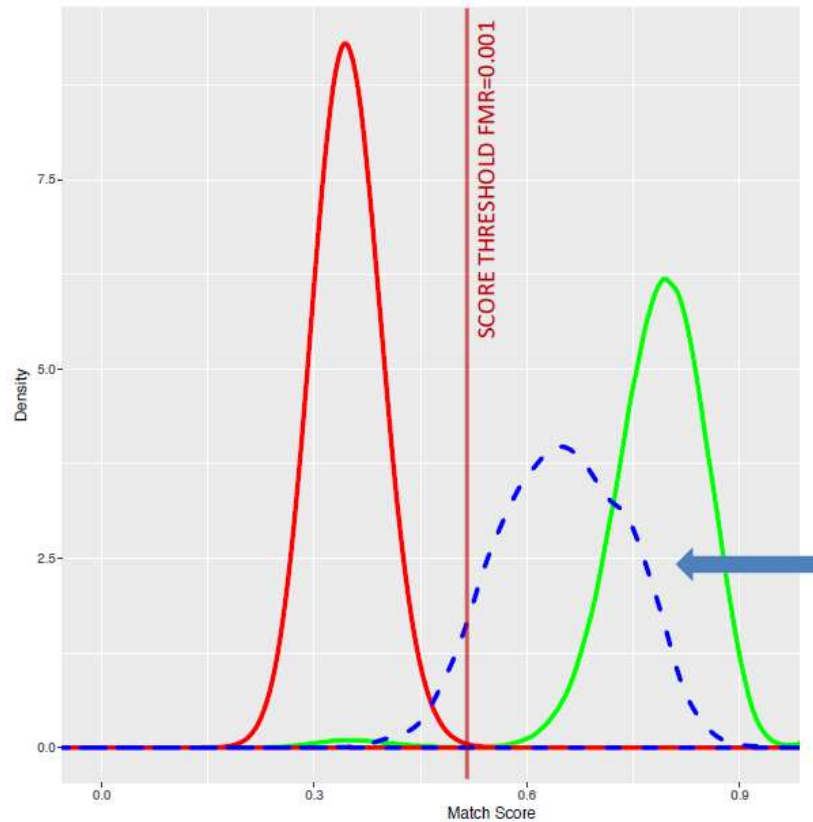
Most morphs match over the threshold – trend across ALL leading algorithms

ePassports – PKD ... ABCs

165+

100

ICAO PKD

?

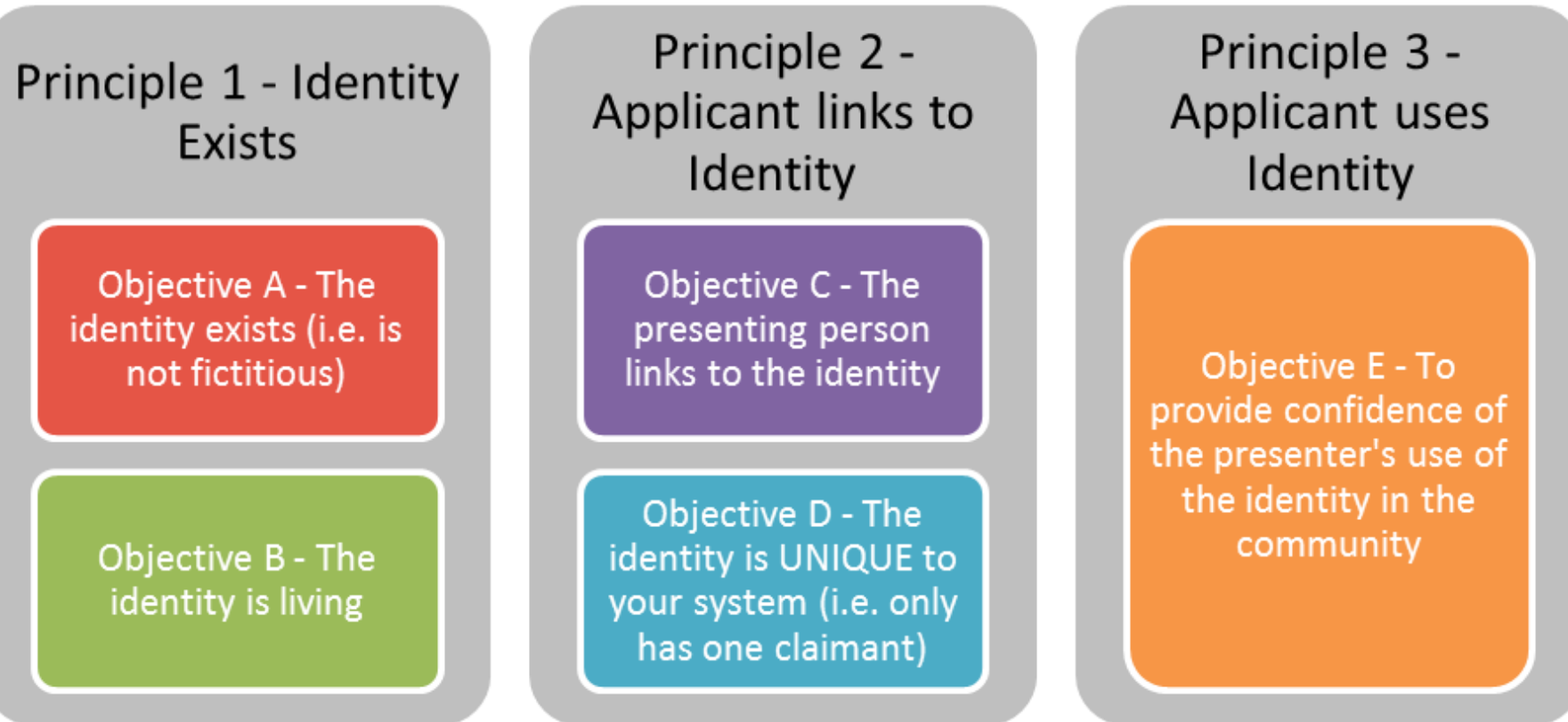Compliant?

55
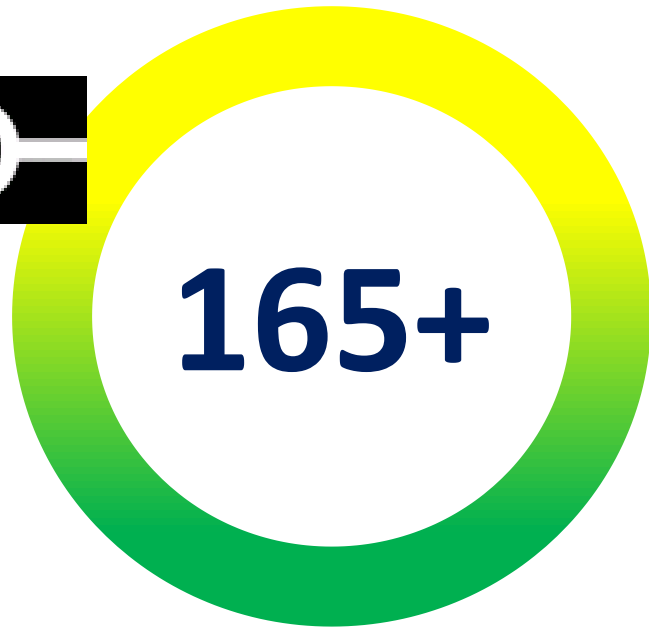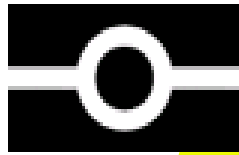
DEFECTS PREVENTING VERIFICATION

?

Validating?

Global View

- ICAO is looking for uniquely identified travellers across the **global system** to increase security and facilitation

- Requires improved and more **holistic Evidence of Identity processes** from individual Passport Issuance authorities, supported by an integrated border approach

- Requires a different understanding of the identity system, and an **increased understanding** of the role biometrics plays

EOI Authentication Principles

Principle 1 - Identity Exists

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EOI Approach

- Identity is understood as an **eco-system**

- EOI framework is focussed on understanding and using information to gain a **level of confidence rather than proof – NO ABSOLUTES**

- Establishing and verifying identity is about **probabilities**

- There is **no "silver bullet"** and **no "one-size-fits-all"**

EOI Approach 2

- Identity and identity-related information is broad, covering public and private sector, and **differs between cultures, countries and geographical regions**

- Harnessing information beyond the traditional chain to build confidence over time

- Importance of aspects such as consistency, distributed information, social footprint and connections between information

- Considers **continuity and longevity** of information

- Understand and maximise the data you hold

EOI Evaluation

- Evaluation: follow EOI principles to systematically document and understand your **'identity ecosystem'** and key risks

- Analyse ALL potential document, record or information sources available and its value in an EOI process (a matrix is helpful)

- Understand the security of "foundational" records, data and the issuance process that sits behind them

- Identify threats gaps and look to other areas of EOI to increase confidence …
  THEN design the approach

- Then … **do it again .....**

8/10

3/10

MORPHING ... SORRY ZEALOTS
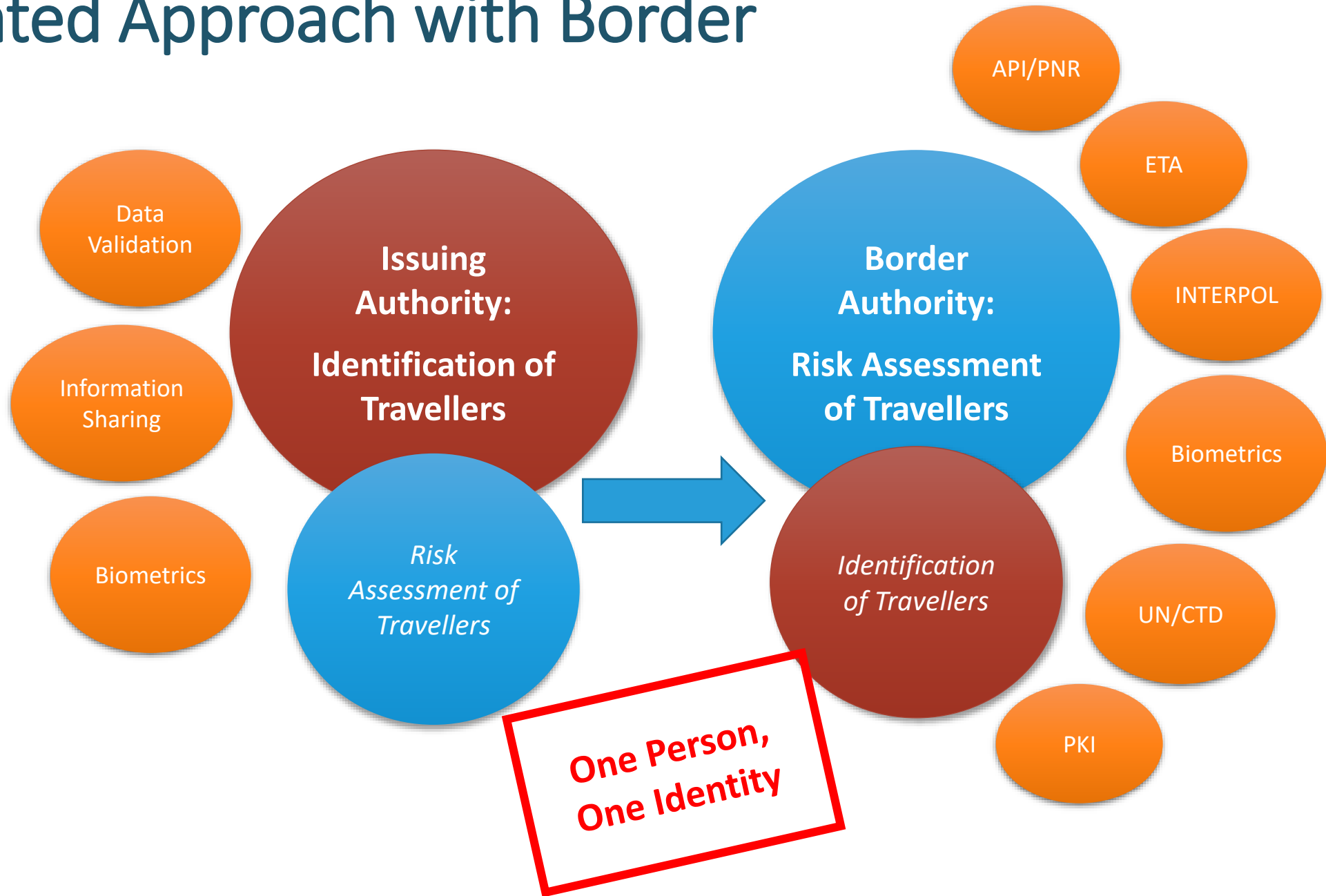

One threat vector among many

Still part of an operational context – with controls

Still needs an available identity – through collusion or theft

Some automated indicators depending on use case:

e.g. Multiple 1:Many high score biometric matches within your own system an indicator

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Integrated Approach with Border

EOI Guidance Material

- New Zealand EOI Standard (available at www.dia.govt.nz)

- ISO/IEC TS 29003:2018 – Identity Proofing

- ICAO Implementation and Capacity Building Working Group (ICBWG) Guidance on Evidence of Identity

  - ICAO Guide on Evidence of Identity

  - ICAO Border Management Guide

- Guidelines on the Legislative Framework for Civil Registration, Vital Statistics and Identity Management (under development)

- UNCTED and BI Guide on Biometrics

Evidence of Identity Standard

VERSION 5.3, MAY 2018

ICAO TRIP Guide on
EVIDENCE OF IDENTITY

ICAO Security and Facilitation

Why Invest in Foundational ID and EOI?

- We all face cost pressures – demand for efficiency gains

- High confidence in EOI and resulting data assets and systems enables efficiencies, costs savings and new services

- Robust first-time interaction for travel documents means subsequent contact can leverage off initial EOI

- A well-understood EOI approach will enable more effective targeting of resources (people and system design)

Risk

Service
Excellence

99.99

0.01
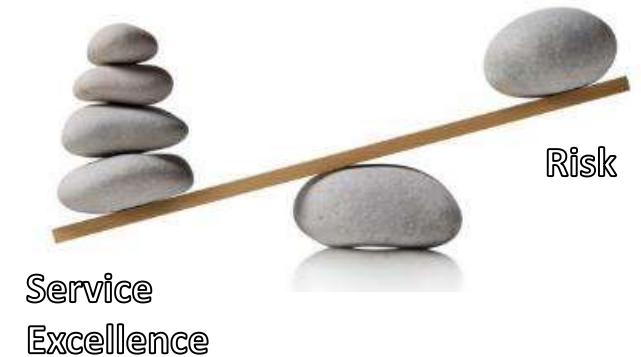
Risk

Service
Excellence

Top Takeaways

- Identity verification is **not absolute** – it is dynamic, based on context, probabilities and levels of confidence
- Understand what can be combined with biometrics to give confidence - **things WILL change**
- **Maximise your own data/information** to make risk-based decisions
- Take a systematic approach to EOI systems and processes - develop a case for investment in EOI based on security AND efficiency
- Look for a **flip-side benefit** or different use to technology – if there is an EOI technology you are using to guard against something, there is a good chance it will facilitate something too – MAYBE ACROSS GOVERNMENT