International Civil Aviation Organization

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

ICAO Headquarters, Montréal, Canada
1 - 4 November 2010

The changing global dynamic of travel document fraud

Presenter
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ISO
De La Rue Identity Systems

Shift from Fraudulent Alteration of Travel Doc to Identity Fraud

– Is this correct?

– Is it a global phenomenon?

– If so, when did it occur?

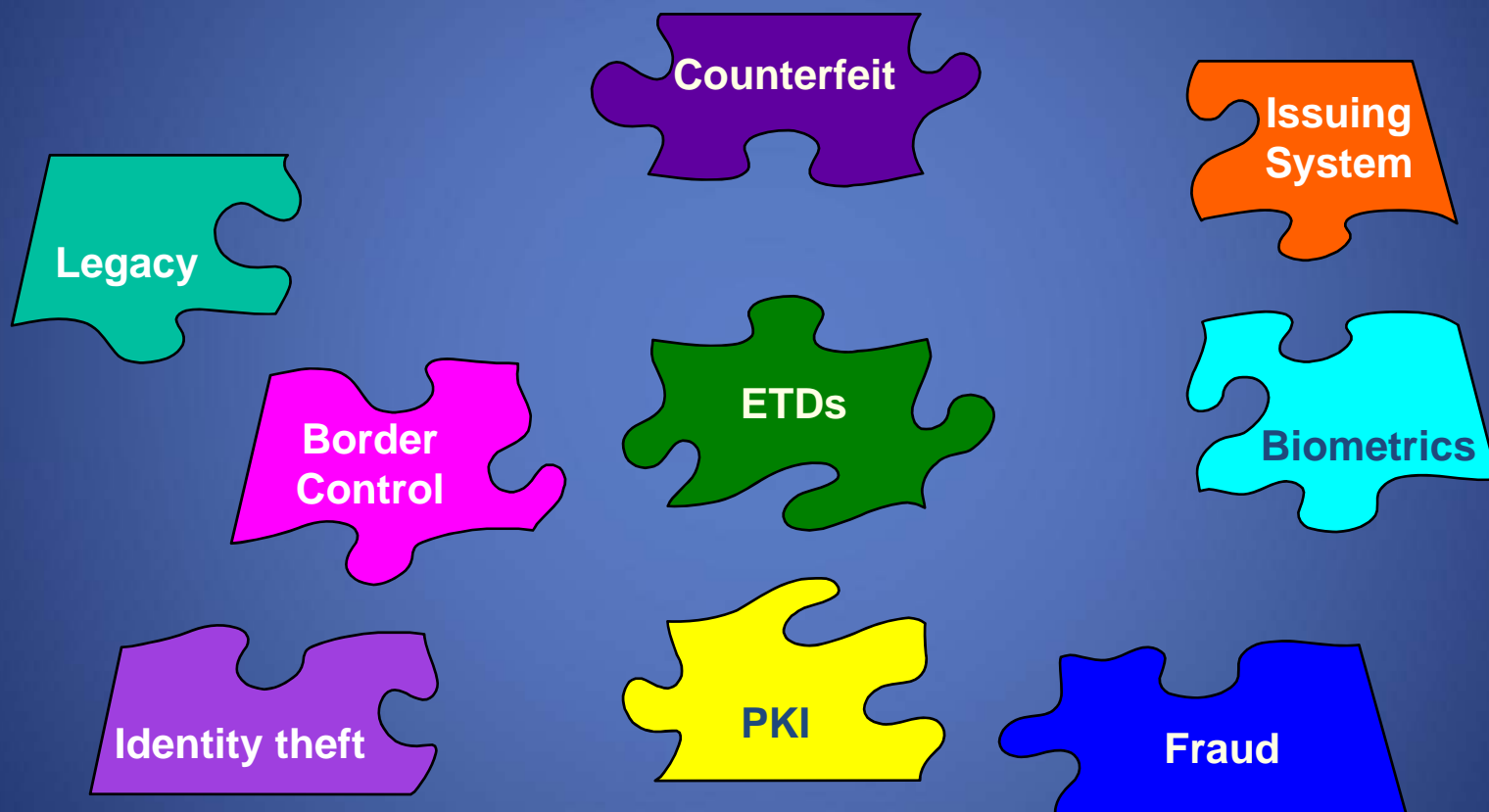– Why did it occur?

– What affect does it have?

Threat

- Criminals will always pick the weakest link:
  - Document security
  - Issuing procedures
  - False identity
- Threat changes as technologies & procedures develop
- Threat varies from country to country & region to region

All Component Parts must be Mutually Supporting

Balance between Document Security & Identity fraud

- **Document fraud**
  - Fraudulent alteration
  - Counterfeit

- **Identity fraud**
  - Fraudulently acquired TDs
  - Identity theft
  - Look alike

Document Fraud

1980 to 2010

ICAO Definitions
Document Fraud

- Counterfeit:
  - An unauthorised copy or reproduction of a genuine security document made by whatever means

- Forgery:
  - Fraudulent alteration of any part of the genuine document e.g. changes to the biographical page or the portrait

Advances in Document Security

- 1980s: Intro of MRP - Photo sub
- 1990s:
  - Digital image replacing stuck-in photo
  - Membrane laminates
  - DOVIDs / OVI
  - Move of data page away from cover
  - Digital security
  - Laser engraving
- 2000s: Biometrics & ePassports

1980s
Stuck in photographs

"One person one passport"
Annex 9 to Chicago Convention

Summary of Document fraud in 1980s

- Photo substitution
- Stuck in photos
- Thick & insecure laminates
- Data pages on cover
- Hand infilled / impact printers
- Only seven countries issuing MRPs
- Very few MRP readers deployed

Advances in Document security and Personalisation Technologies in the 1990s

- Improvement in digital printers:
  - Incorporation of digital images
- Moving data page away from cover
- Incorporating bank note features
- Introduction of laser engraving & polycarbonate data pages
- Ink jet printers
- Move to MRP – all bio data on one page

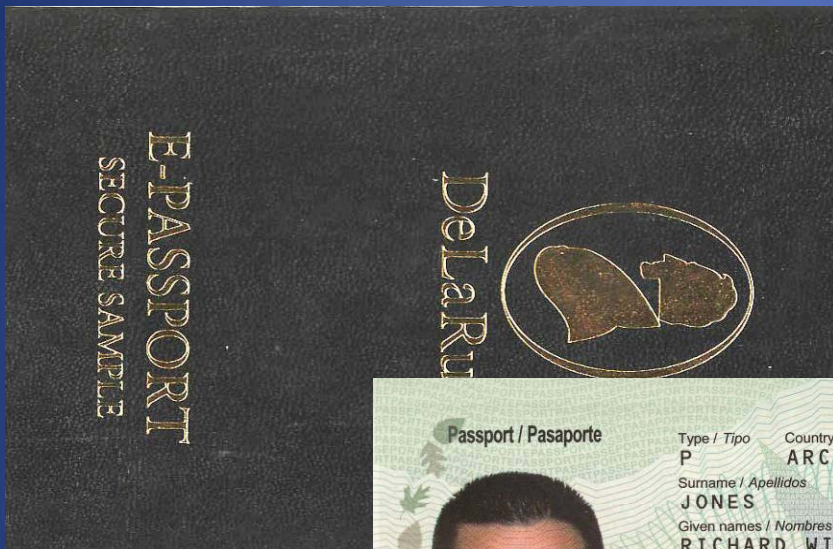# Data page removed away from cover and introduction of digital imaging

Data page – under pressure

- The page with all the personal data and the most examined page

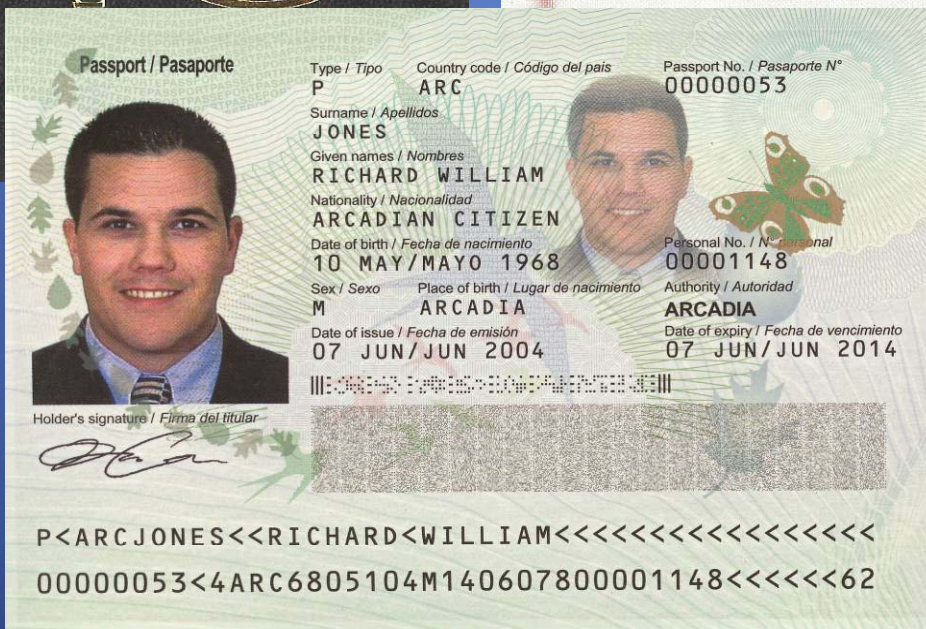- It must provide protection against counterfeit and fraud, especially from desk-top publishing

2000s - ePassport

Arial

Chip
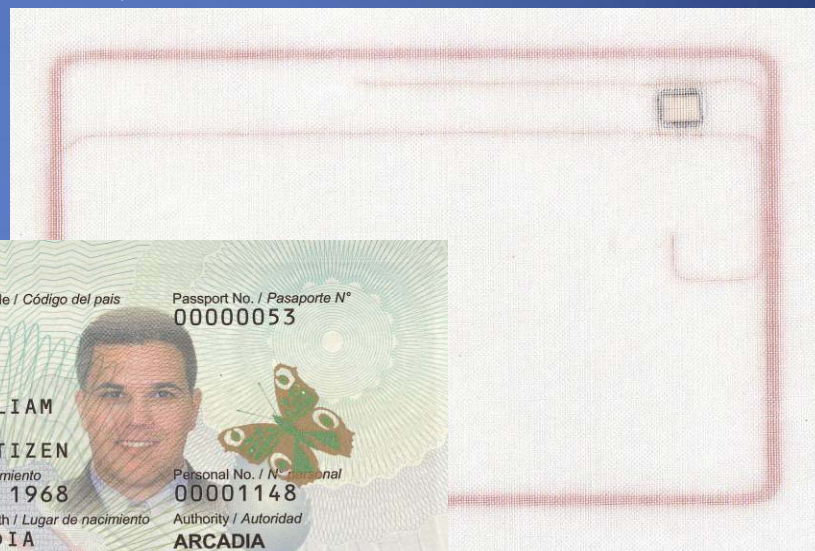
E MRP

Machine Assisted Document Security Verification

ICAO NTWG paper on subject

- A structure feature:
  - hologram or DOVID
- A substance feature;
  - Inks / fibres etc
- A data feature:
  - Digital security - Steganography

Structure Feature

Substance Feature

- OVI
- Fibres
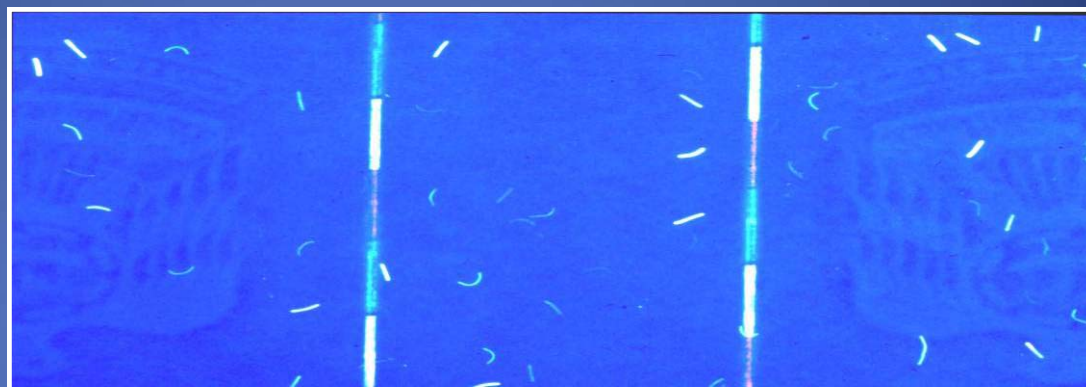
Data Feature - Digital Security

Belgium Passport

Image perforation

Laser engraved image

Pictogram

Self authentication feature

Colour UV replication of data page

OVI

InkJet
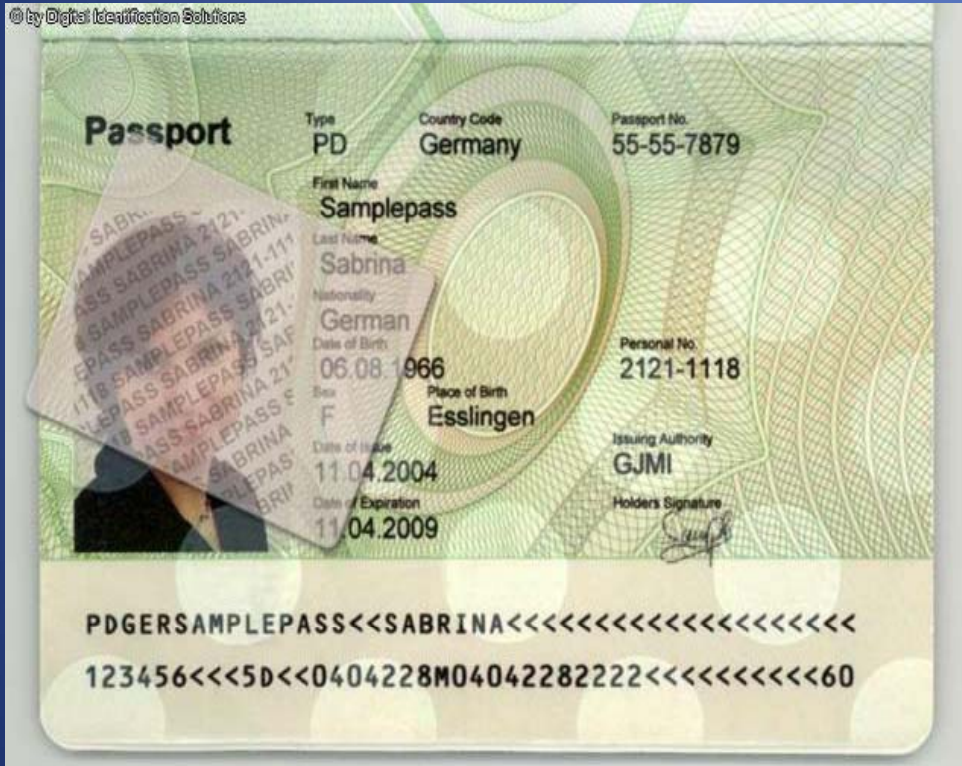
Clear polycarbonate sheet
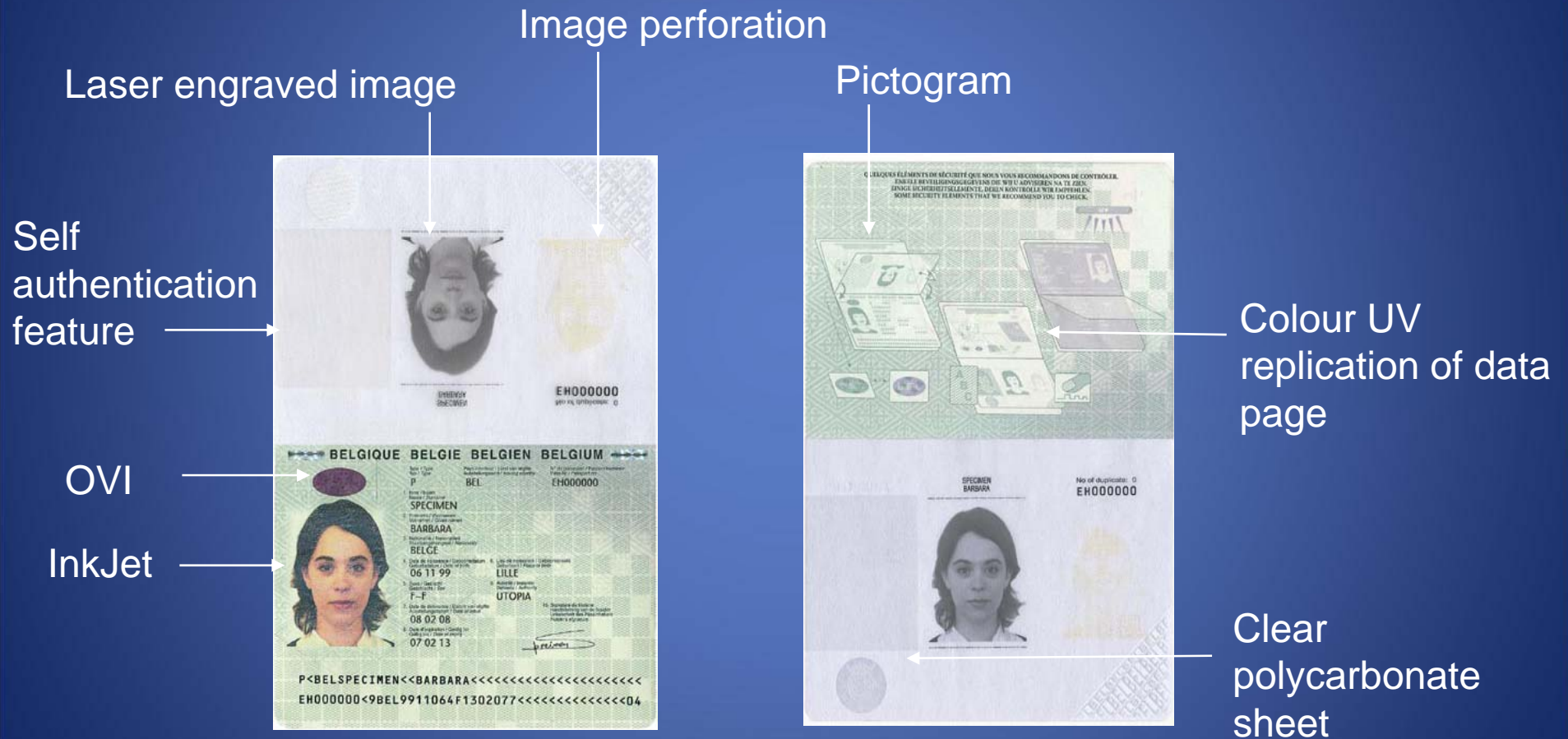
Identity Fraud

1980 to 2010

Identity Fraud

- Threat
  - 40,000,000 births go unrecorded p.a.
  - Breeder documents - birth certificates
  - Poor issuing procedures
  - Internal fraud
  - Poor training of border control officers
  - Linking of databases. Births & deaths
  - Poor exchange of information between countries
  - Political – failed states
  - Lost & stolen. Lack of passport readers

Identity fraud in
1980s / 1990s

- Few national data bases

- Births & deaths not linked
  - The day of the Jackal

- Insecure breeder documents

- Ease of assuming an identity
  - Threat differed from region to region

Improvements in Issue Procedures
2000s

- Increased use of data bases:

- Linking births & deaths

- Linking of government data bases
  - Legal issues / data protection

- Advanced Passenger Information (API)

- Social footprint - Interviews

- Use of biometrics to prevent multiple applications

- Automation of biometric checks

Summary
2010

- ePassport most secure passport ever issued
  - Not many readers deployed
  - Does not prove identity but seals ID
  - Not all ePassports protected by PKI security
- In general Poor National identity management
  - Establish identity
  - Confirm citizenship
  - Assess entitlement

ICAO Doc 9303

- Informative appendix 1 to sect III
  - Security standards for MRTDs
- Informative appendix 2 to sect III
  - Machine assisted document verification
- Informative appendix 3 to sect III
  - The prevention of fraud associated with the issuance process
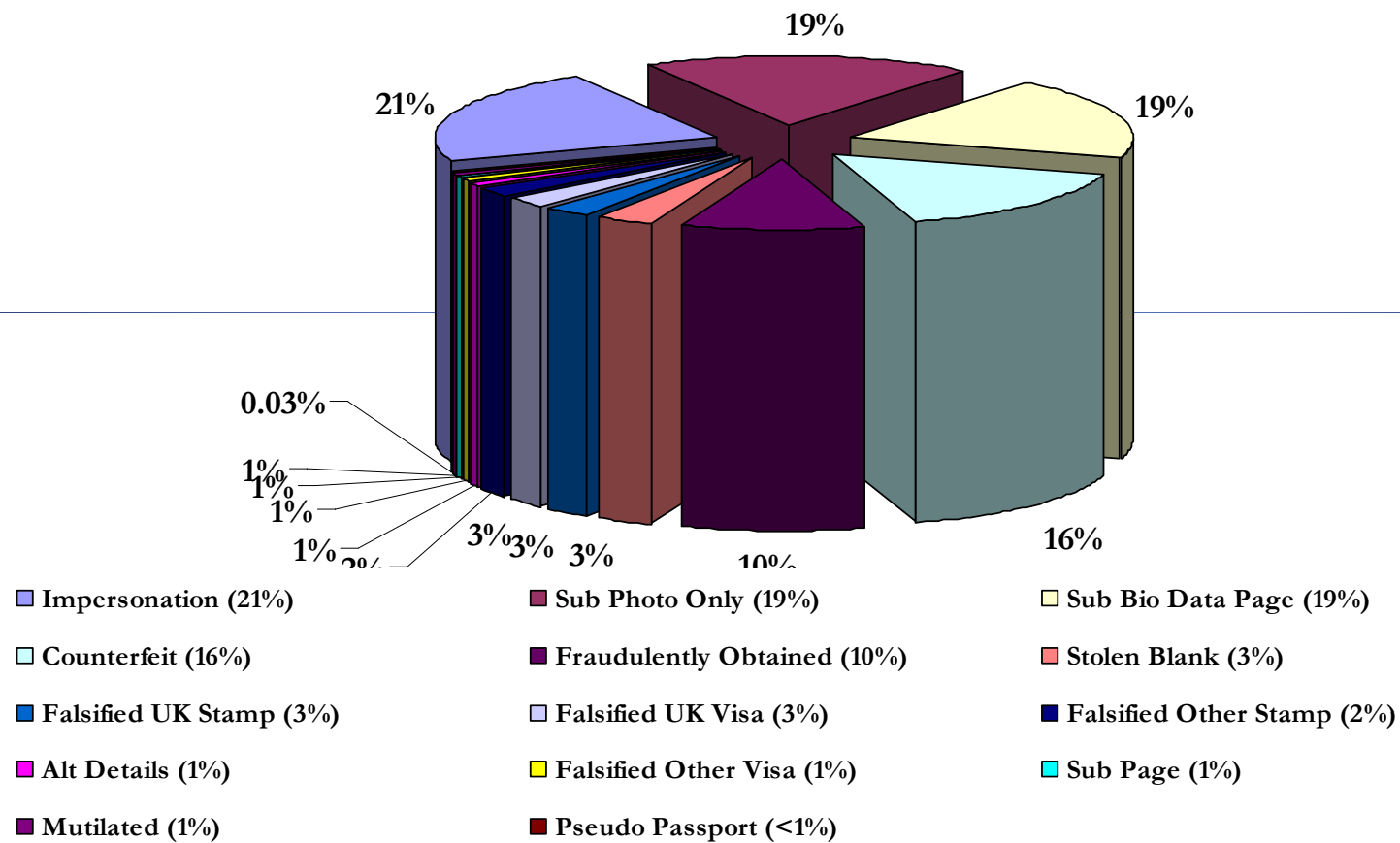 - Originated from a G8 paper

NTWG Report

- Towards better practices in national identity
- Guidance for passport issuing authorities & national identity management

Forgery Detections by Forgery Category
UK Border Control 2007

19%

21%

19%

0.03%

1%
1%
1%

1%
2%
3%
3%
3%

10%

16%

- ▤ Impersonation (21%)
- ▤ Sub Photo Only (19%)
- ▢ Sub Bio Data Page (19%)
- ▢ Counterfeit (16%)
- ▤ Fraudulently Obtained (10%)
- ▤ Stolen Blank (3%)
- ▤ Falsified UK Stamp (3%)
- ▢ Falsified UK Visa (3%)
- ▤ Falsified Other Stamp (2%)
- ▤ Alt Details (1%)
- ▢ Falsified Other Visa (1%)
- ▢ Sub Page (1%)
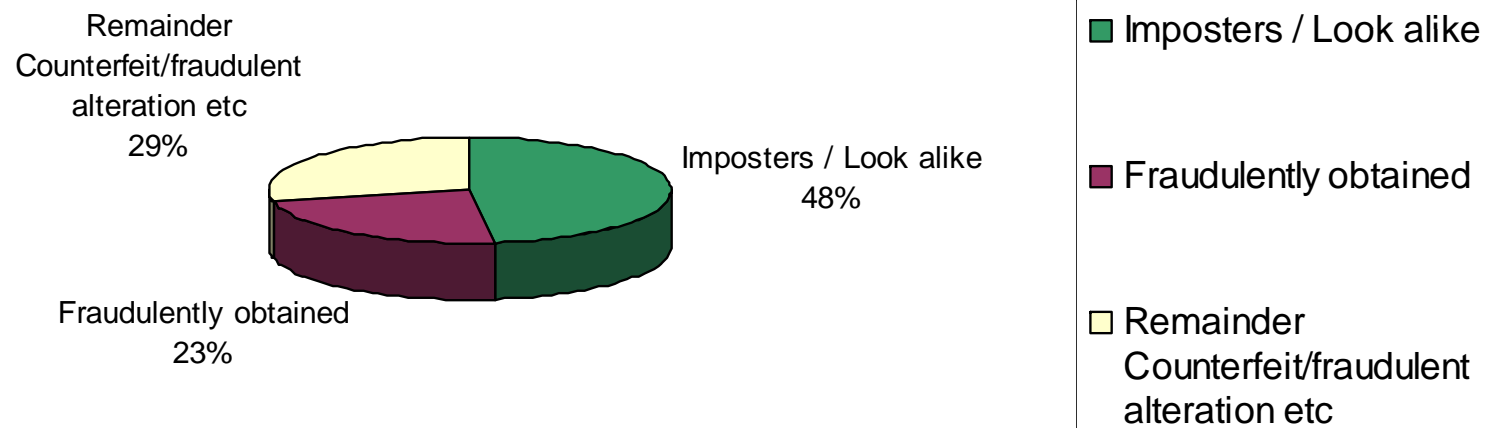- ▤ Mutilated (1%)
- ▤ Pseudo Passport (<1%)

Statistics for 2007

- Identity Fraud: 31%
  - Impersonations / Lookalikes: 21%
  - Fraudulently obtained: 10%
- Document fraud 54%
  - Photo sub: 19%
  - Bio data page sub: 19%
  - Counterfeit : 16%
- Remainder: 15%

Stats from Sept 2009

Remainder Counterfeit/fraudulent alteration etc
29%

Imposters / Look alike
48%

Fraudulently obtained
23%

Legend:
- Imposters / Look alike
- Fraudulently obtained
- Remainder Counterfeit/fraudulent alteration etc

Statistics from 2009

- Identity fraud: 71%
  - Imposters / lookalikes: 48%
  - Fraudulently obtained: 23%
- Document fraud: 29%
  - Fraudulent alterations / counterfeits / others:

Summary

- 2007
  - Identity Fraud = 31%
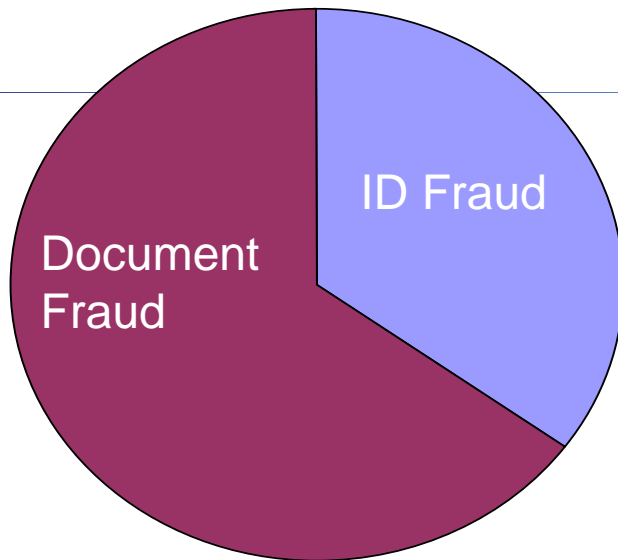 - Document Fraud = 54%
  - Remainder = 15%

- 2009
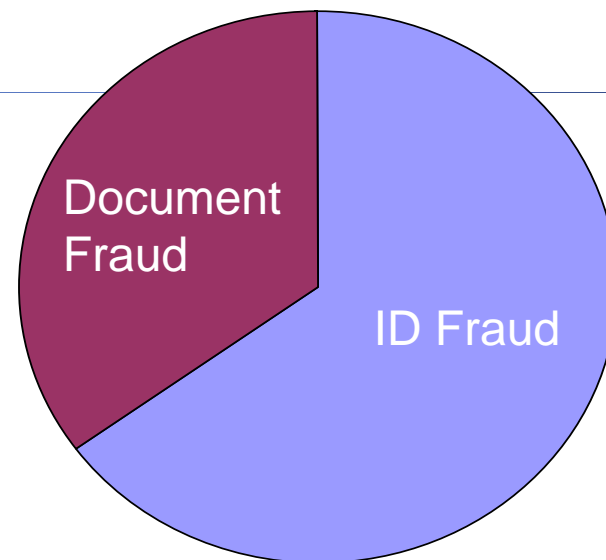 - Identity Fraud = 71%
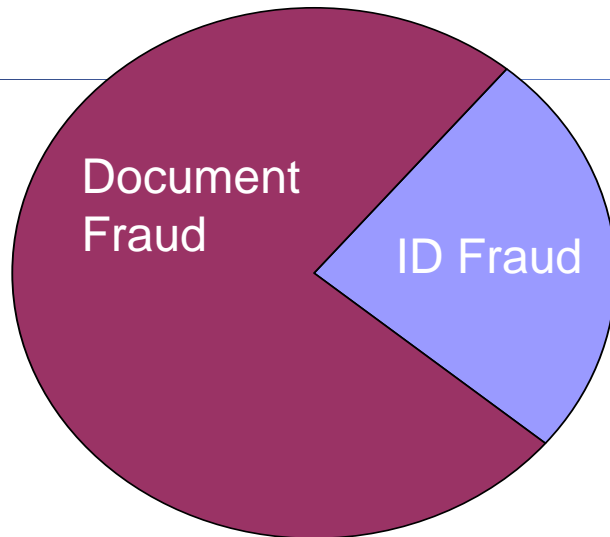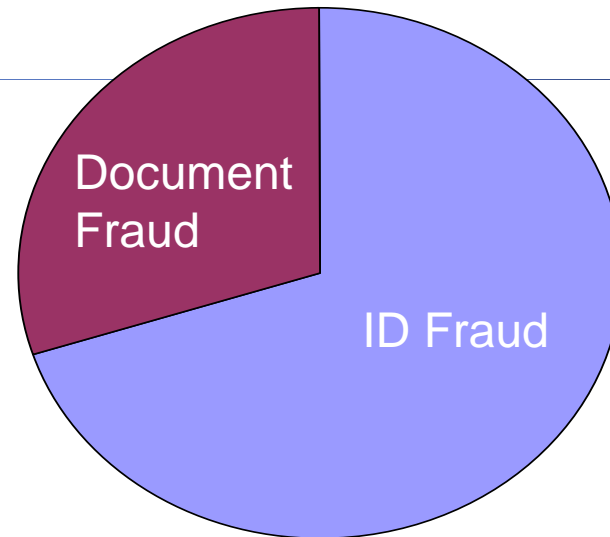 - Document Fraud = 29%

Country A

2006　　　　　　　　　　　　　　　　　　　　**2009**

Document Fraud

ID Fraud

Document Fraud

ID Fraud

Country B

2006

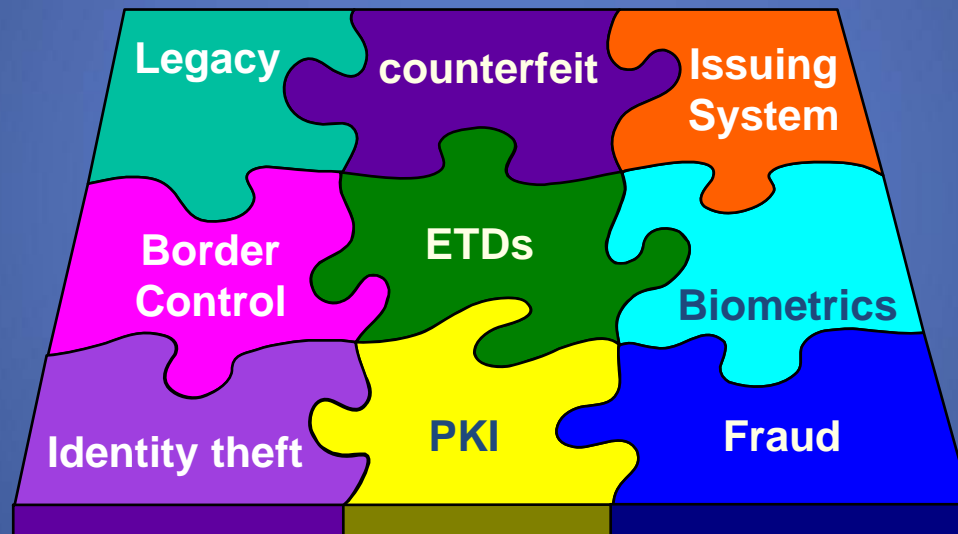**2009**

Document Fraud

ID Fraud

Document Fraud

ID Fraud

Threat constantly changing

Biometrics in Issue Process as well as in Document

Biometrics

- Biometrics will help to solve Identity fraud, lookalikes & imposters
- Biometrics will not prove an identity but will seal an identity
- ePassports just another security feature
  - Still a need for traditional security features

Conclusion

- It would seem that Identity Fraud has now become the major problem

- ICAO has identified that establishing an "Evidence of Identity" is a major requirement

- The danger of issuing highly secure MRTDs based on insecure and corrupt issuance procedures

- Thank you for your attention

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      Email: malcolm.cuthbertson@uk.delarue.com

MRP Summary

- 169 out of 190 countries issuing MRPs
- 21 countries still not issuing MRPs
- 10 of these 21 countries have tenders or contracts in place
- ICAO requirement for all countries to issue MRPs by 1st April 2010
- No non MRPs after 2015

ePassport Summary

2009 - 58 countries. 67,400,000 issued p.a.

2010 - Possible additional 28 countries.14.6 M

- **Total of 86 countries out of 190**

- **Total Annual volume 82 million out of   120 million**

International standards

Identity Fraud

- Internal fraud

- Lost & stolen

- look alike

- Breeder documents

- Evidence of identity

- Renewals

- ETDs

- Legacy books. 10 yrs to 5yr validity

- Political - Failed States

Internal Fraud

- Secure & centralised issuing process
- Limit the number of officers who can grant authority
- Make officers accountable
- No one person can issue a passport
- Audit trail

Summary 2010

- Document fraud
- Pro's
  - E MRP most secure ever
  - Seals an ID
- Con's
  - Lack of readers
  - Not protected by PKI
  - Legacy documents

- ID Fraud
- Pro's
  - Increase use of linked databases