

Regional Seminar on MRTDs, Biometrics and Identification Management

Sint Maarten, 9-11 July 2013



**W.Ronald BELSER**

**EU FIDELITY / BREEDERDOCUMENTS**

**“The weakest link in the Identity chain”**

**Immigration and Naturalization Service**

**KINGDOM of the NETHERLANDS**



**“FIDELITY: Fast and trustworthy Intity  
Delivery and check with ePassports  
Ileveraging Traveler privacy”**



FP7-Security project SEC-284862

**The focus of FIDELITY is the security and usability of e-travel documents and more particularly ePassports**

BREEDER DOCUMENTS,  
THE WEAKEST LINK IN THE IDENTITY CHAIN

SO WE NEED A WORLDWIDE  
MINIMUM SECURITY STANDARD  
FOR BREEDER DOCUMENTS.

## ● IDENTITY

- Religious identity
- Cultural identity
- Social identity
- Ethnic identity
- Etc. identity



**PERSONAL IDENTITY** (who are you)

**BREEDER DOCUMENTS,**  
THE WEAKEST LINK IN THE **I**DENTITY CHAIN

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- 
- **PERSONAL IDENTITY** (unique identity)
    - Name
    - Date of birth
    - Place of birth
    - Name of the parents
  - Registration

**BREEDER DOCUMENTS,**  
THE WEAKEST LINK IN THE **I**DENTITY CHAIN

SO WE NEED A WORLDWIDE  
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- **IIDENTITY** in the past

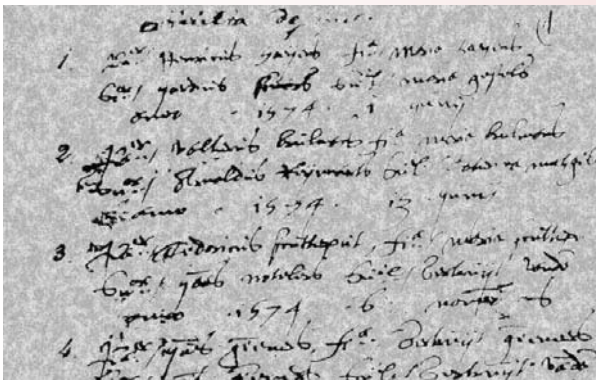
- In the past we nearly did use a personal or unique identity. We used the identity of the religious-, cultural, social- or ethnical group who we belong.
- This group of people didn't need any personal IDentity documents.
- Only small group of people use a personal or unique identity like pilgrims, peddlers, beggars and messengers.
- To prove the "right" identity they often use a kind of laissez-passer when they are traveling around and cross borders.

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• **IDENTITY** registration in the past

• **CHURCH**



– Dutch church book anno MDLXXIV

**1574**

Sub Ministerio fol. 1.  
M. Wolfgangi Ludovici Speidelii Würtemb.  
Sapientis Eccles. Saspacensis.  
sunt neffolgende Kinder getauft worden.  
Anno. M. DCCXXII. = 1722.

Dag.	Kinden.	Eltern.	Bevaterdeuffte.
1722. 11 <sup>ten</sup> Maj.	Johann Georg.	Barr. Peter Eli. pontij. Helig. up. Anna Catharina.	Barr. P. Jörg gladtrierer. Bev. geuer. für. ein Com. Anna Margareta.
1722/ 16. Oct. 17. Nov.	Anna Elisabetza. x	Barr. D. Clara. Brunner jun. up. Anna Catharina.	Barr. P. Jacob Duffler. Bevater auf ein Heufl. und Anna Catharina upor ejus.
1722. 1. Nov.	Geinhard Philip Fridrich.	c. J. Herr Chri- stoph Ferdinand von Segetfeld. Herr zu Hof. etc. Conj. H. Frau Clara geborene von Ge- mingen.	H. H. Herr Johann Hoff- gang albrecht gele. von Segetfeld, Herr zu Hof. etc. und H. Frau von Ge- mingen. H. H. Frau alle geborene von Ge- mingen, Herr zu Hof. etc.

– German church book anno MDCCXXII

**1722**

Project presentation P.6

BREEDER DOCUMENTS,  
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SO WE NEED A WORLDWIDE  
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- IDENTITY registration today

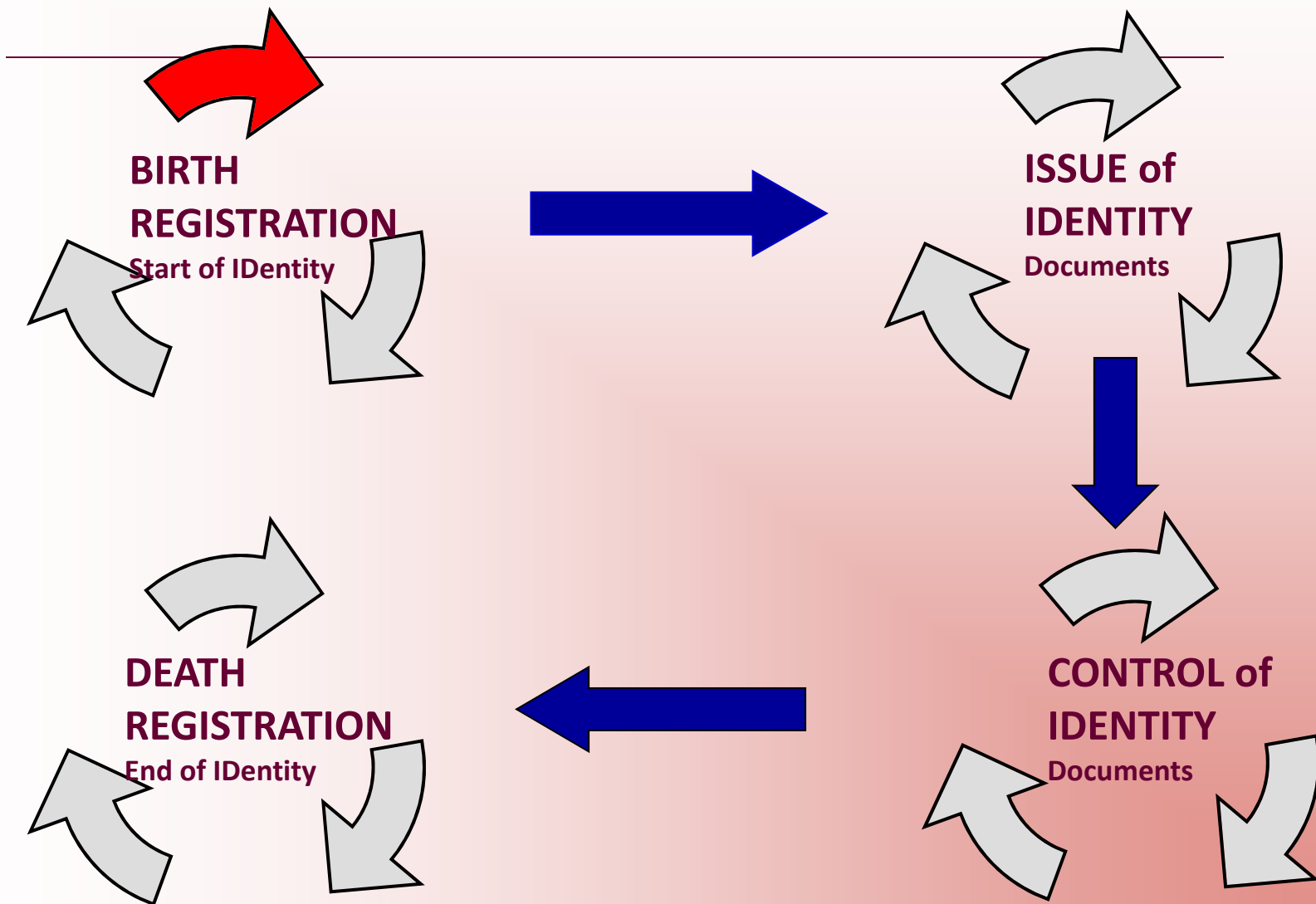
- In a modern way in databases

- Or in a less modern



Municipality  
Monrovia (Liberia)

# IDENTITY CHAIN

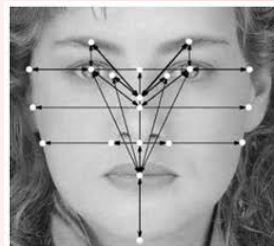
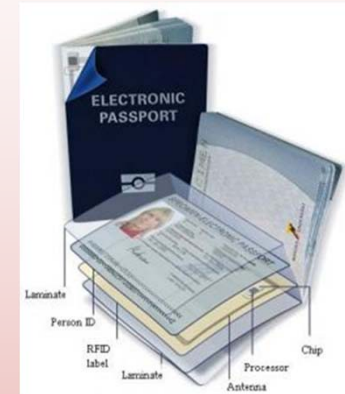




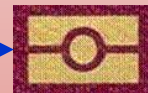
**BREEDER DOCUMENTS,**  
**THE WEAKEST LINK IN THE IDENTITY CHAIN**

**SO WE NEED A WORLDWIDE  
 MINIMUM SECURITY STANDARD  
 FOR BREEDER DOCUMENTS.**

- Thanks to ICAO and ISO, Launch of the **ePassport**
  - specified by **ICAO (9303)**
  - most secure travel document ever
  - **embedded RFID chip**
  - **contains electronic ID data** (e.g. fingerprint, face...)



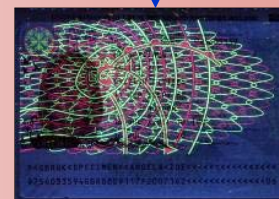
**chip features  
& data**



**VIS**

**UV**

**IR**

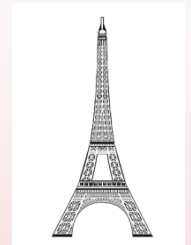


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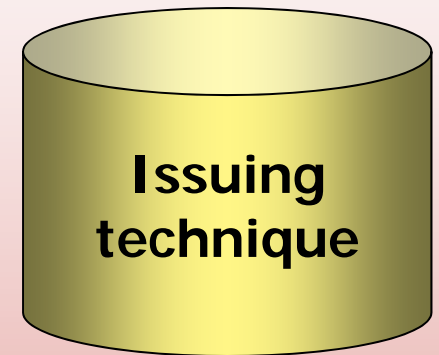
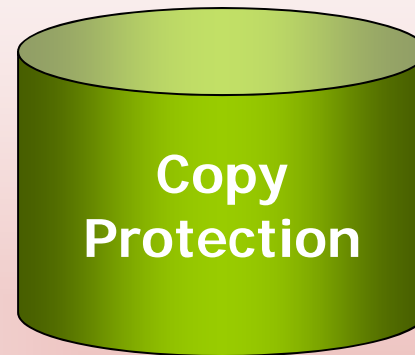
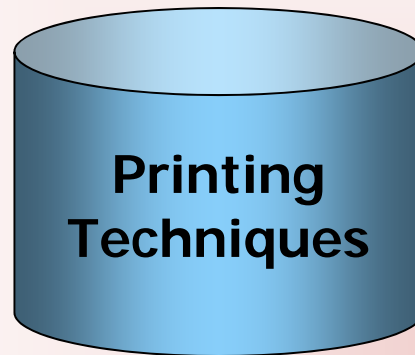
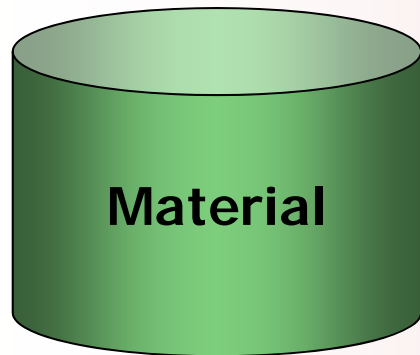
**SINCE 1920 (PARIS CONFERENCE ON PASSPORTS AND CUSTOMS FORMALITIES)  
WE HAD A LOT OF ATTENTION FOR TRAVEL-, IDENTITY-,  
RESIDENCE DOCUMENTS AND VISA:**



- **WORLD WIDE (GLOBAL)**  
*WE HAVE ICAO MRTD DOC. 9303 WITH SPECIFICATIONS FOR:*
  - PART 1. TRAVELDOCUMENTS
  - PART 2. VISA
  - PART 3. ID-DOCUMENTS WITH A TRAVEL FUNCTION
  
- **EUROPE (REGIONAL)**
  - REGULATION FOR PASSPORTS OF EUROPEAN MEMBER STATES
  - REGULATION FOR UNIFORM FORMAT FOR EU VISA
  - REGULATION FOR UNIFORM FORMAT FOR EU RESIDENCE PERMIT

EU regulation 2252/2004 **Minimum Security Standards** for all **EU MS passports**:  
EU regulation 1683/95 **Harmonized EU visa sticker** for all **MS**  
EU regulation 1030/2002 en 380/2008 **Harmonized EU Residence Permit** for all **MS**

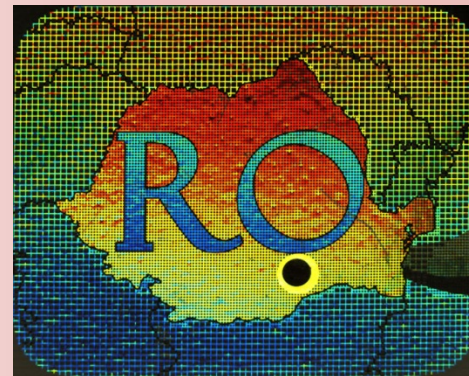
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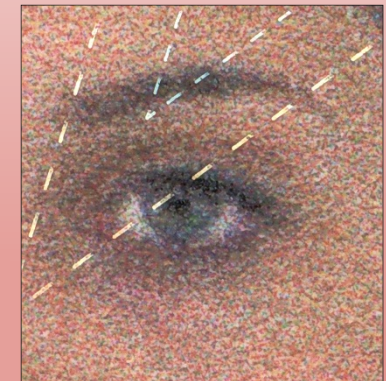
CZE: watermark



SVK: Intaglio: latent image



ROU: hologramm



BIH: ink-jet personalization

**BREEDER DOCUMENTS,**  
**THE WEAKEST LINK IN THE IDENTITY CHAIN**

**SO WE NEED A WORLDWIDE  
MINIMUM SECURITY STANDARD  
FOR BREEDER DOCUMENTS.**

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**EVERYONE KNOWS  
BREEDER DOCUMENTS AND TRAVEL DOCUMENTS  
HAVE IN COMMON  
THAT THEY BOTH SERVE  
TO ESTABLISH/DETERMINE SOMEONE'S (UNIQUE) IDENTITY**

**EVERYONE KNOWS  
THERE IS A DIRECT (IDENTITY) LINK  
BETWEEN BREEDERDOCUMENTS  
AND THE TRAVEL-, IDENTITY- AND RESIDENCE DOCUMENTS  
WHICH ARE ISSUID  
DURING THE LIVETIME OF THE IDENTITY CHAIN.**

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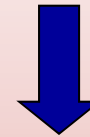
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## TRAVEL-    **CONTRA**    BREEDER DOCUMENTS

WHAT IS DIFFERENCE BETWEEN THESE DOCUMENTS



- REGULATION (ICAO / EU)
- INTERNATIONAL TREATY
- WELL-ORGANIZED AMOUNT
- SYSTEMS AND HANDBOOKS
- SECURITY FEATURES



- NO REGULATION
- NO INTERNATIONAL TREATY
- UNKNOWN AMOUNT
- NO SYSTEMS AND HANDBOOKS
- HARDLY ANY SECURITY FEATURES

**BREEDER DOCUMENTS,**  
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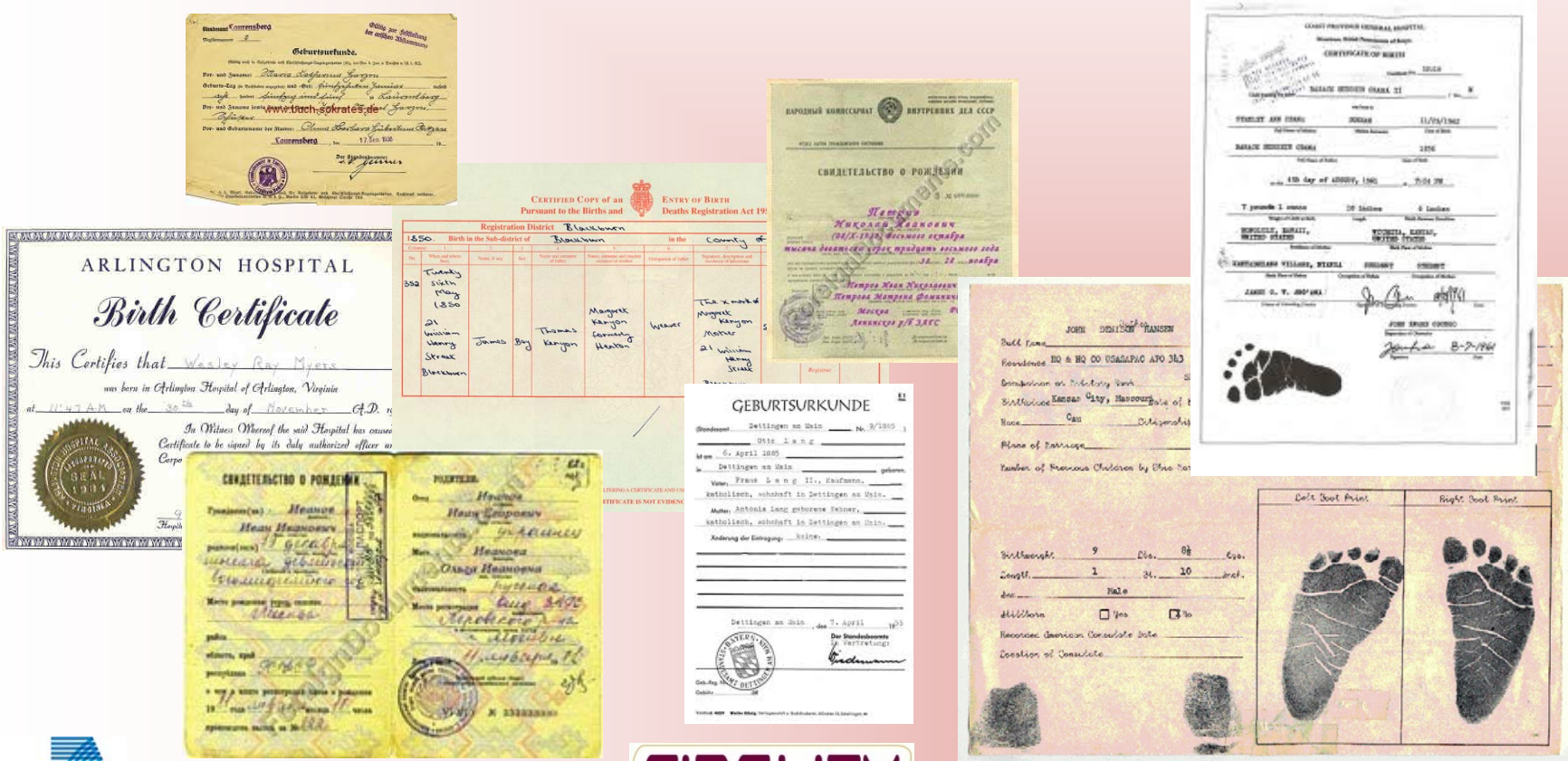
WHY DO WE HAVE IN GENERAL SO MUCH ATTENTION FOR  
TRAVEL, IDENTITY, RESIDENCE DOCUMENTS AND VISA

and

SO LITTLE ATTENTION FOR BREEDER DOCUMENTS THAT  
ARE OFTEN THE BASIS FOR ISSUING AN IDENTITY  
DOCUMENT, PASSPORT OR RESIDENCE PERMIT.

# Breeder documents: the weakest link

- Breeder documents (e.g. birth certificates):
  - have no common format / content



# Breeder documents: the weakest link

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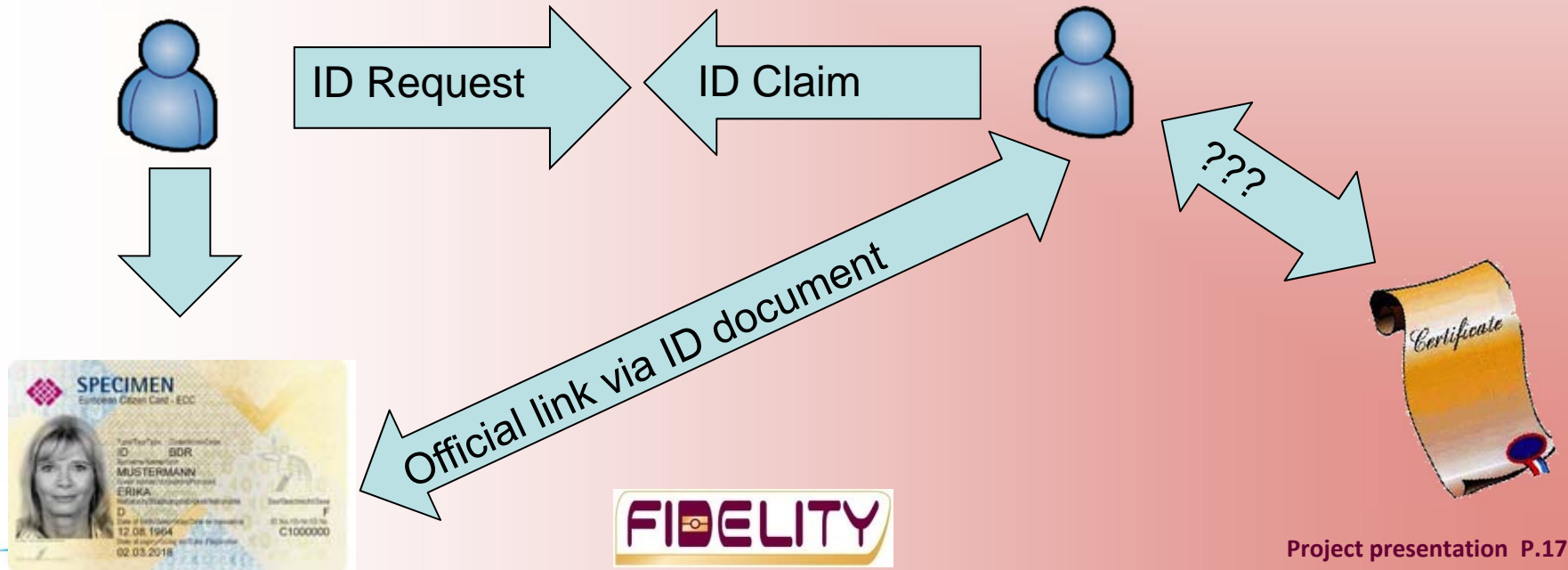
- Breeder documents (e.g. birth certificates):
  - have no common format / content
  - have no common set of security features (special paper, special ink, ...)

	<b><u>EUROPE</u></b> EU Member states	<b><u>NON-EUROPE</u></b> Non-EU Member states	<b><u>SECURITY</u></b> <b><u>FEATURES</u></b>
<b>NUMBERING</b>			
Letter press	40,1%	37,7%	Not
Toner technique	24,2%	7,7%	Not
Type writer	24,7%	10,0%	Not
Handwriting	6,6%	17,7%	Not
Other technique	4,5%	26,8%	Not
<b>PERSONALIZATION</b>			
Toner technique	48,5%	18,7%	Not
Type writing	26,5%	36,3%	Not
Hand writing	13,6%	37,4%	Not
Other	11,4%	7,7%	Not



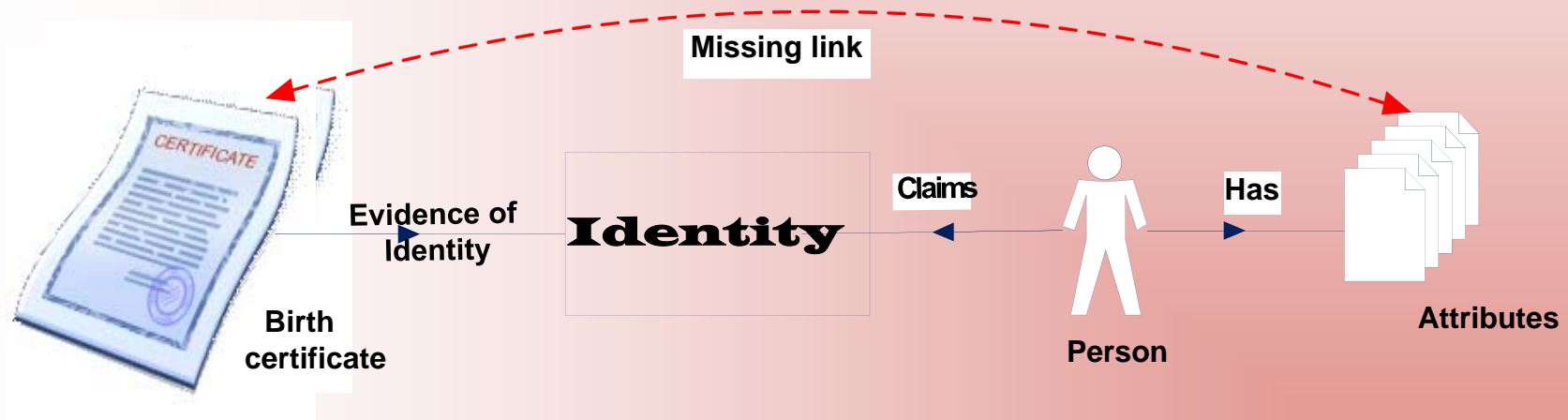
# Breeder documents: the weakest/missing link

- **Breeder documents (e.g. birth certificates):**
  - have no common format, content or common set of security features
  - **Consequences:**
    - Can be counterfeited quite easily
- **Main problem**
  - false (breeder) documents in the application processes will lead to genuine / authentic ID document (e-passport)



# Urgent need to establish a secure birth certificate

It is now time to establish minimum standards for birth certificates and other evidence of identity to improve the level of integrity of ID documents



# Breeder documents regulation?

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Since 1920 we had a lot of attention for travel-, identity-, residence documents and Visa:

## WORLD WIDE (GLOBAL)

WE HAVE ICAO MRTD DOC. 9303 WITH SPECIFICATIONS FOR:

PART 1. TRAVELDOCUMENTS

PART 2. VISA

PART 3. ID-DOCUMENTS WITH A TRAVEL FUNCTION

**PART 4. NEED FOR BREEDER DOCUMENT SPECIFICATIONS**

## EUROPE (REGIONAL)

REGULATION FOR PASSPORTS OF EUROPEAN MEMBER STATES

REGULATION FOR UNIFORM FORMAT FOR EU VISA

REGULATION FOR UNIFORM FORMAT FOR EU RESIDENCE PERMIT

**NEED FOR REGULATION FOR A MINIMUM SECURITY STANDARD  
FOR BREEDER DOCUMENTS**

# FIDELITY general objectives

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- To develop and demonstrate solutions that enable faster and more secure and efficient real-time authentication of individuals at border crossing
- To protect privacy of the travel document holders with a privacy-by-design approach
- To develop the solutions which will **improve the issuance process of breeder documents**

FIDELITY deliverables:

D6.1	New Breeder documents design - intermediate report	Feb 2013
D6.2	Security features for breeder documents	April 2014
D6.3	Process definitions for breeder documents	April 2015

BREEDER DOCUMENTS,  
THE WEAKEST LINK IN THE IDENTITY CHAIN

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**TRUST IN BREEDERDOCUMENTS  
INCREASE THE INTEGRITY OF  
THE e-DOCUMENT ISSUING AUTHORITY  
IN COMMON**

**&**

**INCREASES THE LEVEL OF ACCEPTANCE  
OF THE (e)DOCUMENTS  
IN PARTICULAR.**

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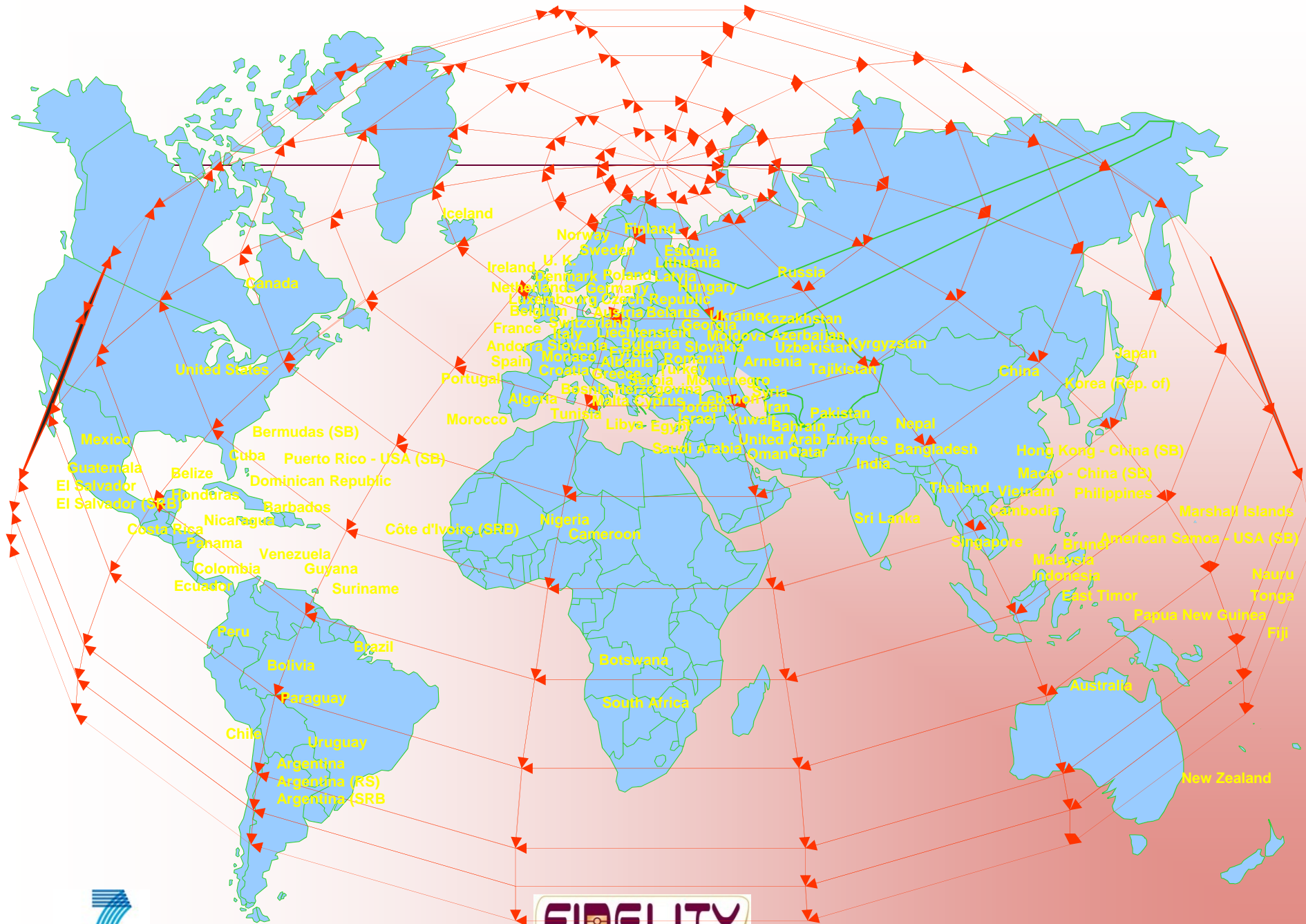
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... can we trust the million eID documents that are in circulation ?



Example: In France 500,000 to 1 million of the 6.5 million biometric passports in circulation are estimated to be false, having been obtained on the basis of fraudulent breeder documents.

*(see e.g. article in "Le Parisien", 19.12.2011)*



# FIDELITY – The project

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## The project

- Funded by the European Commission's FP7 Security theme
- Collaboration of 19 partners (SMEs, Industry, End-users, Academic partners)
- 4-years
- Morpho as coordinator

## Objectives

- SWOT (Strength Weaknesses opportunity Threats) Analysis of the ePassport life cycle:
  - from **breeder document** to passport expiration and revocation
  - Develop solutions and recommendations to improve:
    - ePassport issuance,
    - ID controls at borders,
    - Citizens' trust.
  - Recommend how to improve (end-to-end) security and the usability of ePassports



# Fidelity Breeder documents

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- Main goals:
  - Formulate basic requirements/to propose solutions for the process of the issuance, verification, and using of breeder documents in Europe
  - Recommendations for reliable breeder document management processes
  - Consider/Define the general life cycle of a breeder document
  - Consider international (EU/ICAO) discussion activities
  - ePassport issuing process, security of breeder documents

# Fidelity Breeder documents

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- Main requirements:
  - Secure the document.
    - It needs to prevent copying, fraud, alteration etc
    - This could be well covered by a combination of classical and/or digital security features of level 1, 2 and 3
  - Easy authentication of the document
  - Homogenization of the authenticated feature, documents format & creation/verification processes between member states
  - Strong link between person and document. (Central DB and/or Biometrics )
  - When should the link “chain of trust“ be established?
    - At time of birth (then which type of e.g. biometrics is used?)
    - Later (then how is the authenticity of the attributes provided is verified?)

# FIDELITY consortium

## Industry:



## Users:



## Academic partners:



## SME:



## Advisors:

Advisory board composed of 19 experts from 10 countries representing MS ministries, police, data protection agencies, and consultants





The FIDELITY project receives funding from the European Community's Framework Programme (FP7/2007-2013) under grant agreement n° 284862.



More information: [www.fidelity-project.eu](http://www.fidelity-project.eu)

**Thank you for your attention!**