

Tenth Symposium and Exhibition on Machine Readable Travel Documents (MRTDs) and Border Security, October 7-9, 2014.

**AN EUROPEAN PERSPECTIVE  
ON  
EVIDENCE OF IDENTITY**

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**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

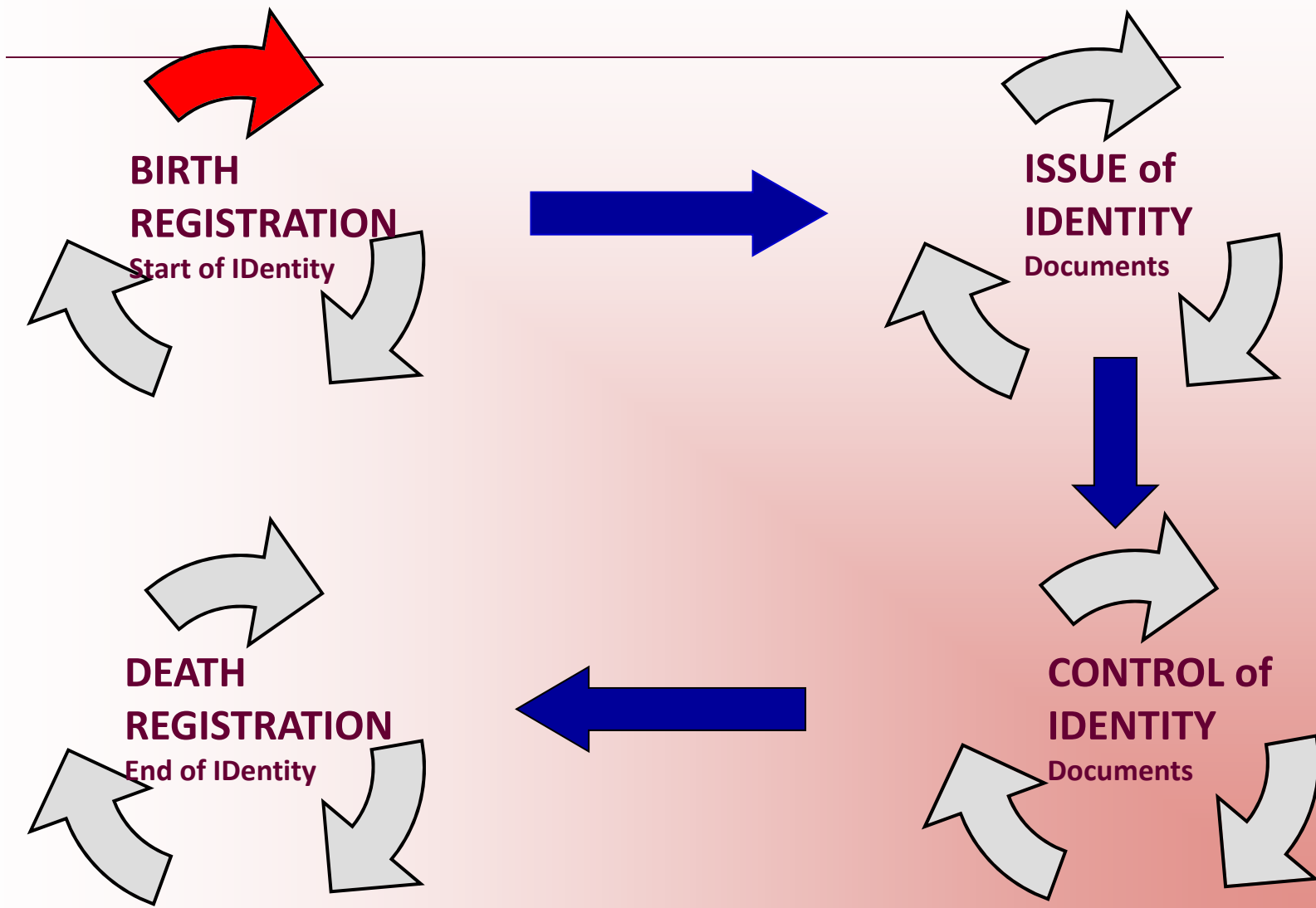
- Religious identity
- Ethnic identity
- Cultural identity
- Social identity
- Etc. identity

Cultural  
identity



**PERSONAL IDENTITY** (who are you)

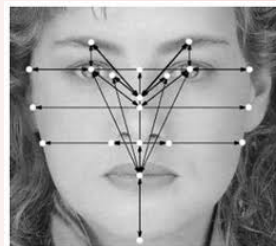
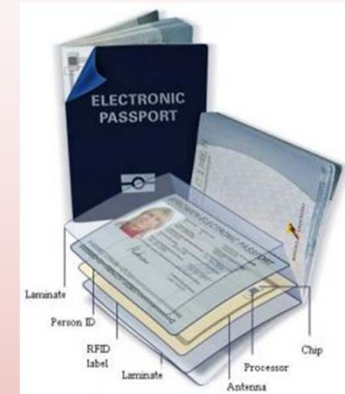
# IDENTITY CHAIN



**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...)



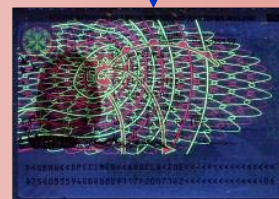
chip features  
 & data



VIS

UV

IR

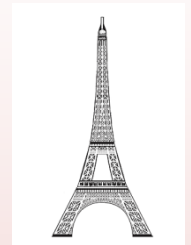


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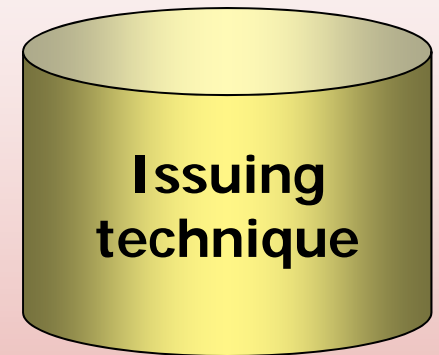
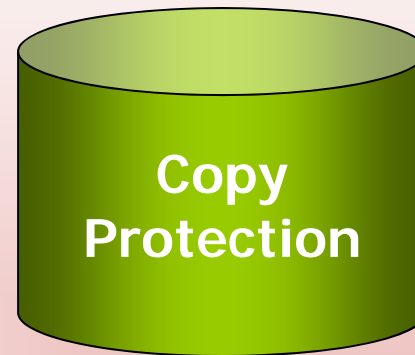
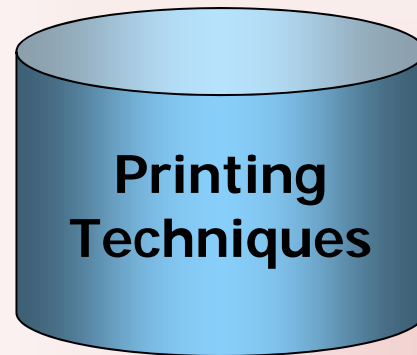
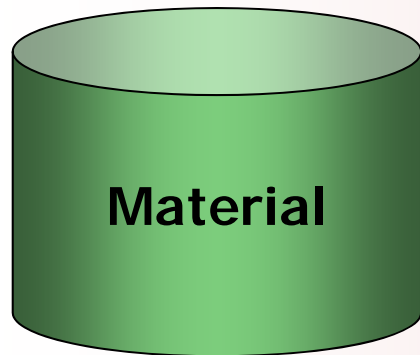
**SINCE 1920 (PARIS CONFERENCE ON PASSPORTS AND CUSTOMS FORMALITIES)  
WE HAD A LOT OF ATTENTION FOR TRAVEL-, IDENTITY-,  
RESIDENCE DOCUMENTS AND VISA:**



- **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**

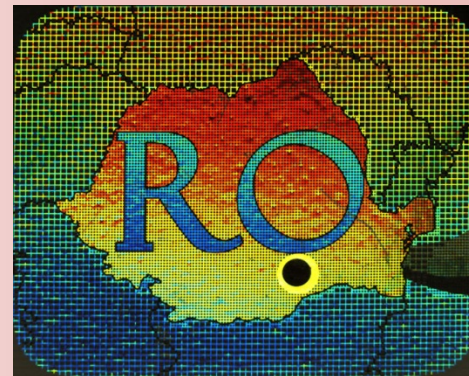
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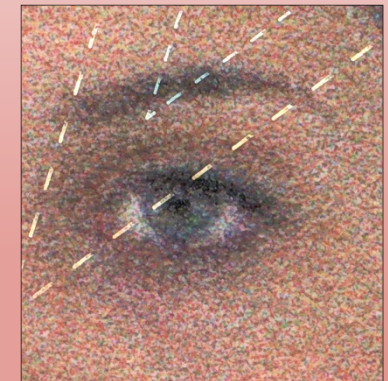
CZE: watermark



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.**



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

SO WE NEED A (WORLDWIDE)  
MINIMUM SECURITY STANDARD  
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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.

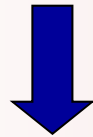
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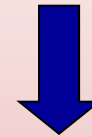
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## **TRAVEL-    CONTRA    BREEDER DOCUMENTS**

**WHAT IS DIFFERENCE BETWEEN THESE DOCUMENTS**



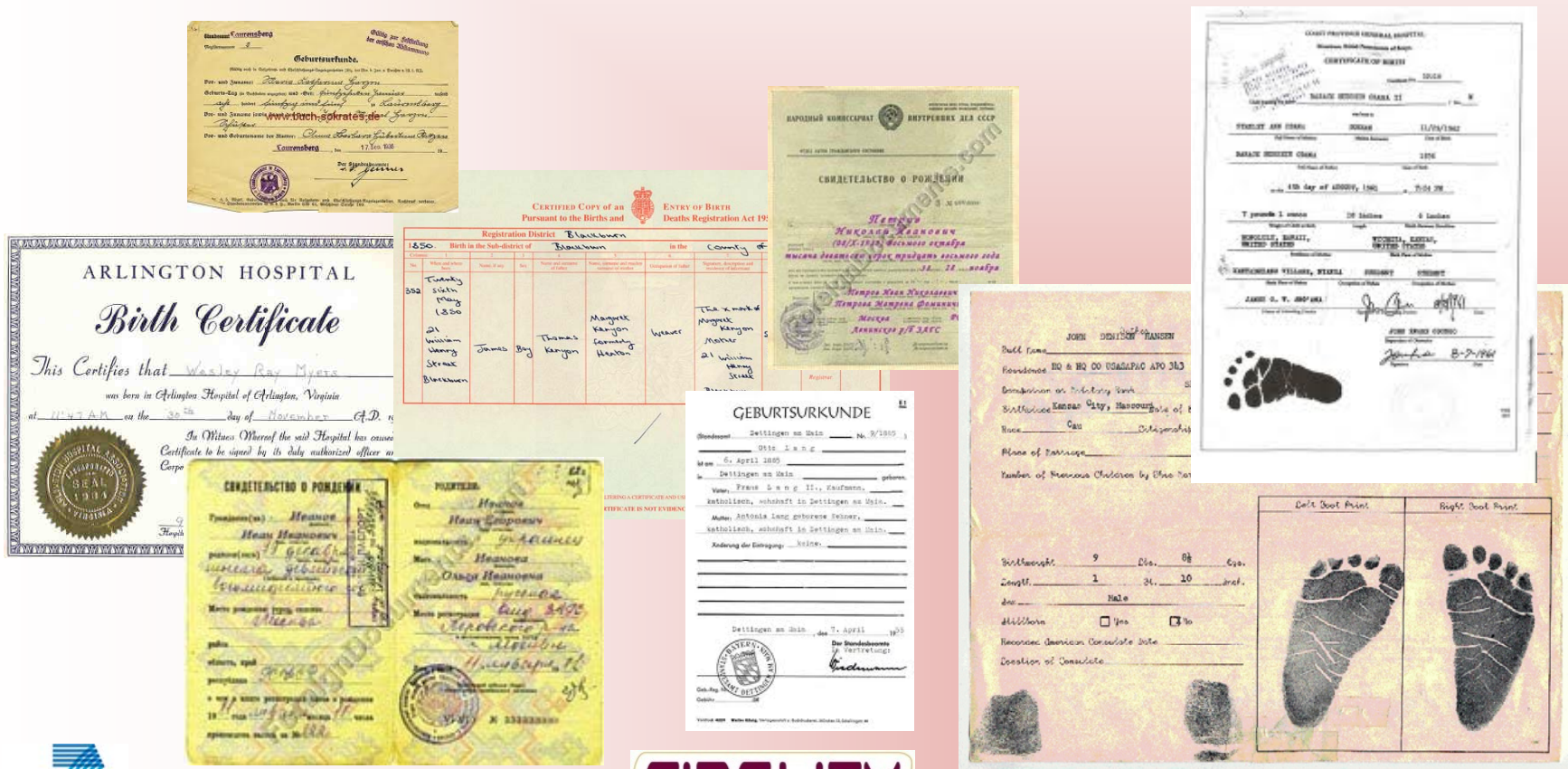
- REGULATION (ICAO / EU)
- INTERNATIONAL TREATY
- WELL-ORGANIZED AMOUNT
- SYSTEMS AND HANDBOOKS
- SECURITY FEATURES



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

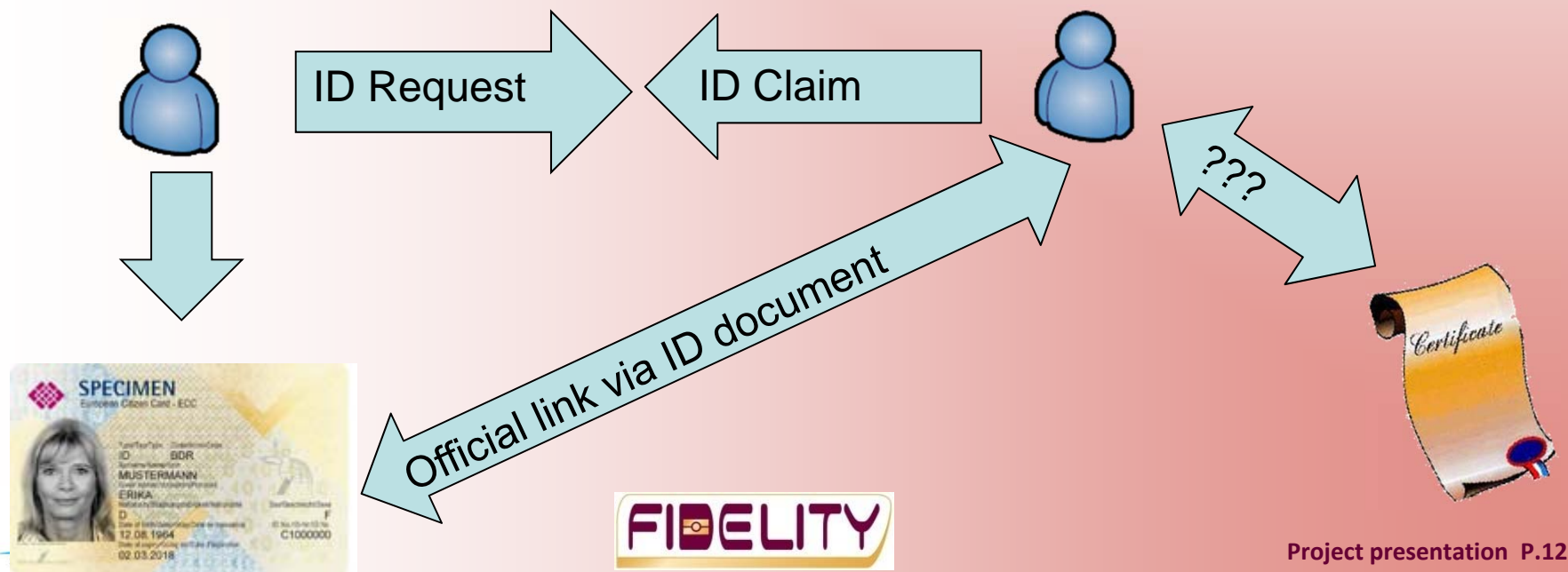
# Breeder documents: the weakest link

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



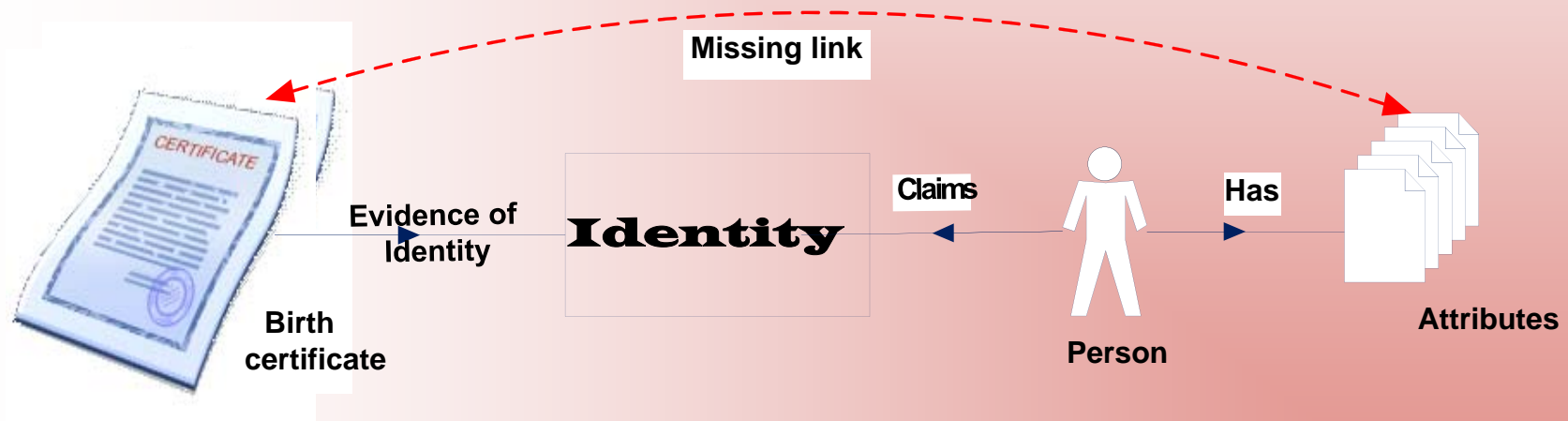
# Breeder documents: the weakest/missing link

- **Breeder documents (e.g. birth certificates):**
  - have no common format, content or common set of security features
  - **Consequences:**
    - Can be counterfeit 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 doc's 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**

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





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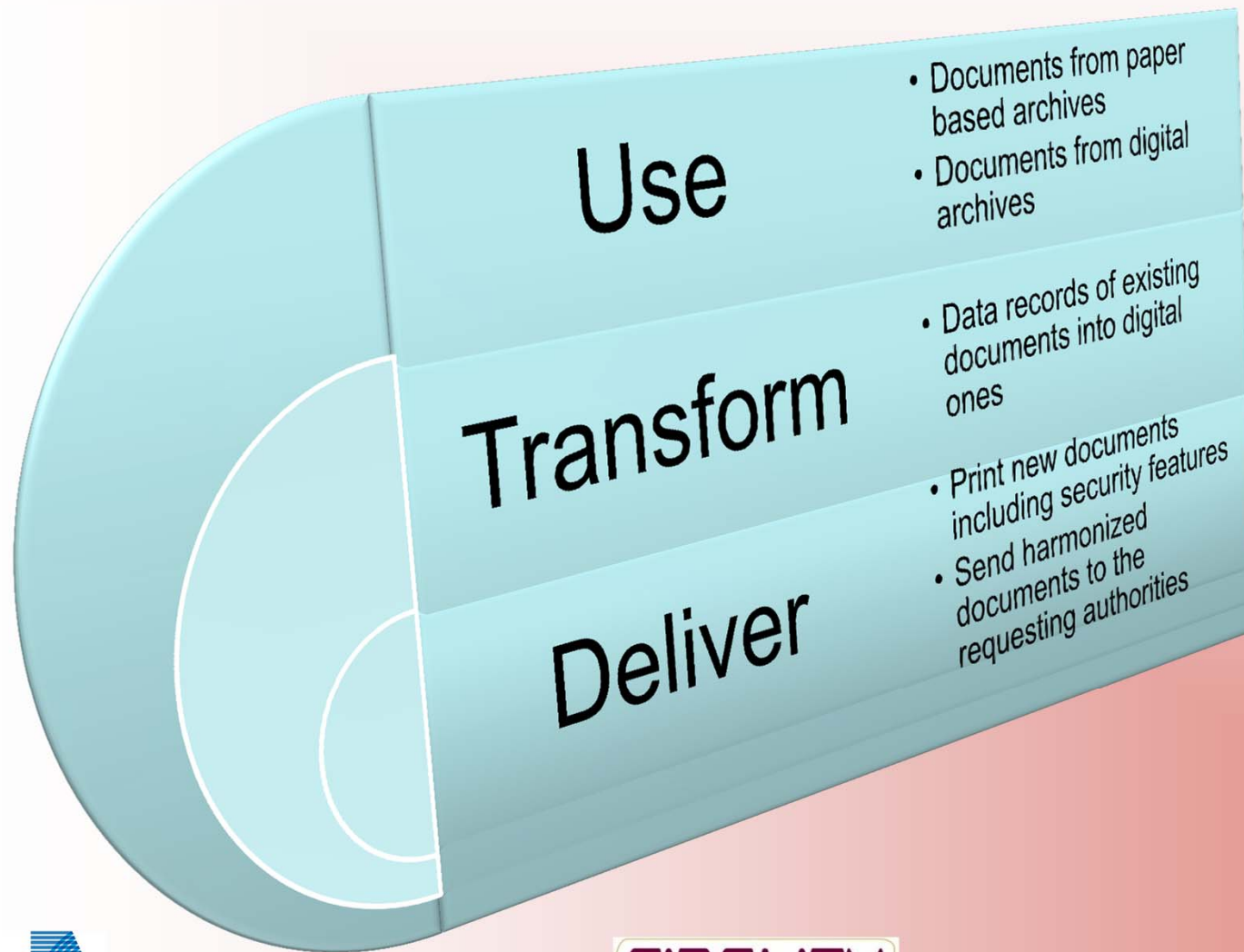
**SO WE NEED A (WORLDWIDE)  
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**FIDELITY Proposal**  
on a harmonized  
European birth certificate  
and on a harmonized  
data verification infrastructure

# Backward compatible processes

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# Harmonised graphical concept

**BIRTH CERTIFICATE**  
GEBURTSURKUNDE / CERTIFICATE DE NAISSANCE

01. DOCUMENT NUMBER: **D001456BABCD123**

02. PLACE OF BIRTH: **Brandenburg**

03. DATE OF BIRTH: **15.12.1990**

04. SEX OF THE CHILD: **F**

05. SURNAME OF THE CHILD: **Mustermann**

06. FORENAMES OF THE CHILD: **Erika, Maria, Sophia**

07. SEX OF THE FIRST PARENT: **F**

08. SURNAME OF T. F. P.: **Mustermann**

09. FORENAMES OF T. F. P.: **Katharina**

10. BIRTH NAME OF T. F. P.: **Schmidt**

11. SEX OF THE SECOND PARENT: **M**

12. SURNAME OF T. S. P.: **Mustermann**

13. FORENAMES OF T. S. P.: **Jakob Thomas**

14. BIRTH NAME OF T. S. P.: **-**

15. NAME OF THE ISSUING AUTHORITY: **Standesamt Mitte**

16. DATE OF ISSUANCE: **22.12.1990**

17. PLACE OF ISSUANCE: **Berlin**

18. DATE OF BIRTH OF THE FIRST PARENT: **31.12.1965**

19. PLACE OF BIRTH OF T. F. P.: **Hamburg, Germany**

20. CITIZENSHIP OF T. F. P.: **German**

21. CREDENTIAL NUMBER OF T. F. P.: **D0012345XYZ1234**

22. DATE OF BIRTH OF THE SECOND PARENT: **01.02.1960**

23. PLACE OF BIRTH OF T. S. P.: **Wien, Austria**

24. CITIZENSHIP OF T. S. P.: **Austrian**

25. CREDENTIAL NUMBER OF T. S. P.: **AUT98765ABCDEF**

26. NAME OF THE ISSUING OFFICER: **Klaus Mueller**

27. BIRTH PLACE ADDRESS: **Zentralkrankenhaus, Musterstr. 1, 12345 Brandenburg**

28. TIME OF BIRTH: **21:00**

29. SECONDARY IDENTIFICATION NUMBER: **123456789ABCDE**

Signature: *K. Mueller*  
Signature/Unterschrift/Signature

30. REMARKS: **none**

1. numéro du document 2. lieu de naissance 3. date de naissance 4. sexe de l'enfant 5. nom de l'enfant 6. prénoms de l'enfant 7. sexe du premier parent 8. nom du premier parent 9. prénoms du premier parent 10. nom de naissance du premier parent 11. sexe du second parent 12. nom du second parent 13. prénoms du second parent 14. nom de naissance du second parent 15. nom de l'autorité de délivrance 16. date de délivrance 17. lieu de délivrance 18. date de naissance du premier parent 19. lieu de naissance du premier parent 20. nationalité du premier parent 21. n° de l'acte de naissance du premier parent 22. date de naissance du second parent 23. lieu de naissance du second parent 24. nationalité du second parent 25. n° de l'acte de naissance du second parent 26. nom de l'agent chargé de la délivrance 27. adresse du lieu de naissance 28. heure de naissance 29. numéro d'identification secondaire 30. remarques

1. Dokumentennummer 2. Geburtsort 3. Geburtstag 4. Geschlecht des Kindes 5. Nachname des Kindes 6. Vornamen des Kindes 7. Geschlecht des ersten Elternteils 8. Nachname des ersten Elternteils 9. Vornamen des ersten Elternteils 10. Geburtsname des ersten Elternteils 11. Geschlecht des zweiten Elternteils 12. Nachname des zweiten Elternteils 13. Vornamen des zweiten Elternteils 14. Geburtsname des zweiten Elternteils 15. Name der ausstellenden Behörde 16. Ausstellungsort 17. Ausstellungsdatum 18. Geburtsdatum des ersten Elternteils 19. Geburtsort des ersten Elternteils 20. Staatsangehörigkeit des ersten Elternteils 21. Nr. des Ursprungsdokumentes des ersten Elternteils 22. Geburtsdatum des zweiten Elternteils 23. Geburtsort des zweiten Elternteils 24. Staatsangehörigkeit des zweiten Elternteils 25. Nr. des Ursprungsdokumentes des zweiten Elternteils 26. Name des ausstellenden Beamten 27. Geburtsort / Anschrift 28. Uhrzeit der Geburt 29. Nummer der Drittperson (z.B. Zeuge) 30. Bemerkungen

1. documento n. 2. luogo di nascita 3. data di nascita 4. sesso del bambino 5. cognome del bambino 6. nomi del bambino 7. sesso del primo genitore 8. cognome del primo genitore 9. nomi del primo genitore 10. cognome di nascita del primo genitore 11. sesso del secondo genitore 12. cognome del secondo genitore 13. nomi del secondo genitore 14. cognome di nascita del secondo genitore 15. Autorità 16. data di rilascio 17. luogo di rilascio 18. data di nascita del primo genitore 19. luogo di nascita del primo genitore 20. cittadinanza del primo genitore 21. numero del certificato di nascita del primo genitore 22. data di nascita del secondo genitore 23. luogo di nascita del secondo genitore 24. cittadinanza del secondo genitore 25. numero del certificato di nascita del secondo genitore 26. nome del funzionario 27. indirizzo del luogo di nascita 28. ora di nascita 29. numero di identificazione secondario 30. commenti

1. document nummer 2. geboorteplaats 3. geboortedatum 4. geslacht van het kind 5. achternaam van het kind 6. voornamen van het kind 7. geslacht van de eerste ouder 8. achternaam van de eerste ouder 9. voornamen van de eerste ouder 10. geboortenaam van de eerste ouder 11. geslacht van de tweede ouder 12. achternaam van de tweede ouder 13. voornamen van de tweede ouder 14. geboortenaam van de tweede ouder 15. naam van de uitgevende instantie 16. afgiftedatum 17. afgifteplaats 18. geboortedatum van de eerste ouder 19. geboorteplaats van de eerste ouder 20. nationaliteit van de eerste ouder 21. nummer van de geboortakte van de eerste ouder 22. geboortedatum van de tweede ouder 23. geboorteplaats van de tweede ouder 24. nationaliteit van de tweede ouder 25. nummer van de geboortakte van de tweede ouder 26. naam van de uitgevende functionaris 27. adres van de geboorteplaats 28. geboortetijd 29. tweede ID-nummer (functionaris/getuige) 30. beperkingen

1. número de documento 2. lugar de nacimiento 3. fecha de nacimiento 4. sexo del niño 5. apellidos del niño 6. nombre(s) del niño 7. sexo del primer progenitor 8. apellido(s) del primer progenitor 9. nombres del primer progenitor 10. apellido de soltero del primer progenitor 11. sexo del segundo progenitor 12. apellido(s) del segundo progenitor 13. nombres del segundo progenitor 14. apellido(s) de soltero del segundo progenitor 15. nombre de la autoridad emisora 16. fecha de emisión 17. lugar de emisión 18. fecha de nacimiento del primer progenitor 19. lugar de nacimiento del primer progenitor 20. nacionalidad del primer progenitor 21. número de credencial del primer progenitor 22. fecha de nacimiento del segundo progenitor 23. lugar de nacimiento del segundo progenitor 24. nacionalidad del segundo progenitor 25. número de credencial del segundo progenitor 26. nombre del funcionario responsable de la emisión 27. dirección del lugar de nacimiento 28. hora de nacimiento 29. número de identificación secundario 30. comentarios

# Harmonised number space

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- Harmonised design and data entries in all EU Member States (optionally with additional country-specific information).
- Electronic national or regional or local data bases.
- Europe-wide harmonized numbering system
  - e. g., using 15 characters

ABC 1A3B5 XY67Z8

country issuing serial  
code authority number

- Printed on the document at production time.



# Data entries

Based on the September 1956 ICCS Convention recommendations

## Mandatory data records

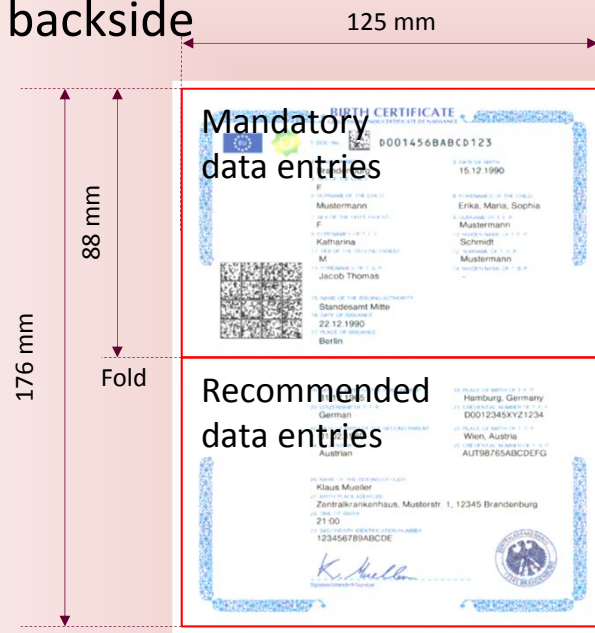
- 1 Document number
- 2 Place of birth
- 3 Date of birth
- 4 Sex of the child
- 5 Surname of the child
- 6 Forenames of the child
- 7 Sex of the first parent
- 8 Surname of the first parent
- 9 Forenames of the first parent
- 10 Birth name of the first parent
- 11 Sex of the second parent
- 12 Surname of the second parent
- 13 Forenames of the second parent
- 14 Birth name of the second parent
- 15 Name of the issuing authority
- 16 Date of issuance
- 17 Place of issuance

## Recommended data records

- 18 Date of birth of the first parent
- 19 Place of birth of the first parent
- 20 Citizenship of the first parent
- 21 Credential number of the first parent
- 18 Date of birth of the second parent
- 19 Place of birth of the second parent
- 20 Citizenship of the second parent
- 21 Credential number of the second parent
- 26 Name of the issuing officer
- 27 Birth place address
- 28 Time of birth
- 29 Secondary identification number
- 30 Remarks

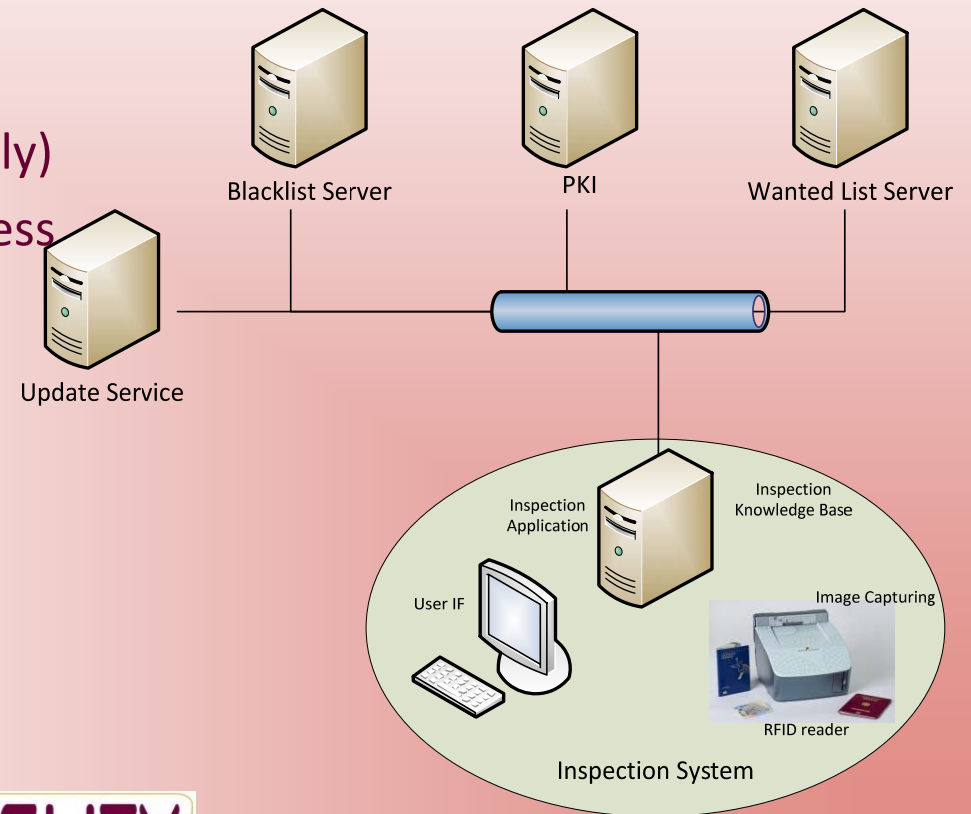
# Size and format

- Double ID3 format, 125 x 176 mm
- Foldable to ID3
- Machine readable by common full page document readers
- At least all mandatory data additionally stored in barcodes
- Translations on the backside



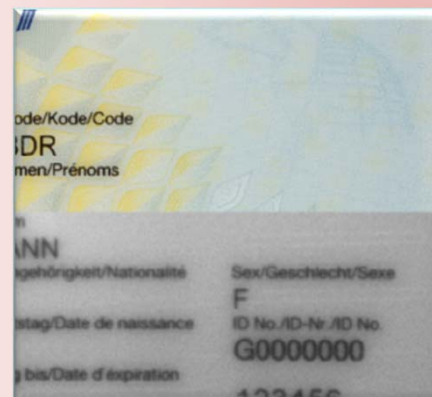
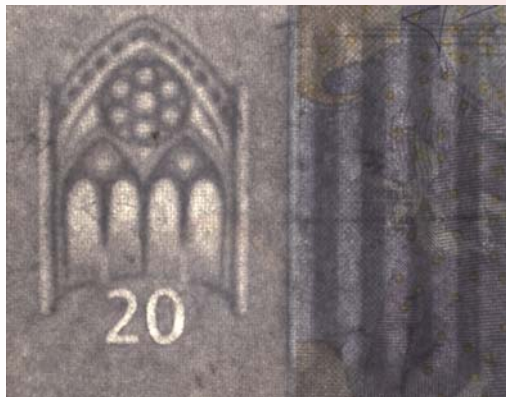
# Online verification infrastructure

- Application of proven security protocols
- Common PKI (certificates) for mutual authentication
- Reuse of existing ID document verification know how and infrastructures
- Privacy friendly data access (data confirmation queries only)
- Document number based access (data base location derived from the document number)



# Physical document security

- Establish a minimum standard
- Allow online as well as off-line verification
- Provide human and machine checkable security features

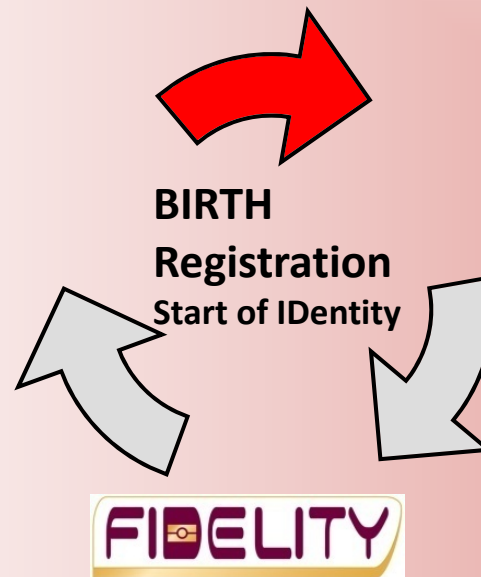




**BREEDER DOCUMENTS,**  
**THE WEAKEST LINK IN THE IDENTITY CHAIN**

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

- Do we need (EU) harmonised breeder document ?
- Do we need (EU) harmonised issuing process of breeder documents ?
- Do we need (EU) database with information of breeder document issued by member states ?





**THANK YOU**

