"**FIDELITY**: **F**ast and trustworthy **I**dentity **D**elivery and check with **e**Passports **l**everag**i**ng **T**raveler privac**y**"

FP7-Security project SEC-284862

Julien Bringer, Morpho – SAFRAN group

Norwegian Biometrics Forum
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SEVENTH FRAMEWORK PROGRAMME

SAFRAN Morpho

Presentation of the FIDELITY project

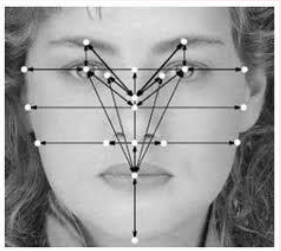
The focus of FIDELITY is the security and usability of e-travel documents and more particularly ePassports

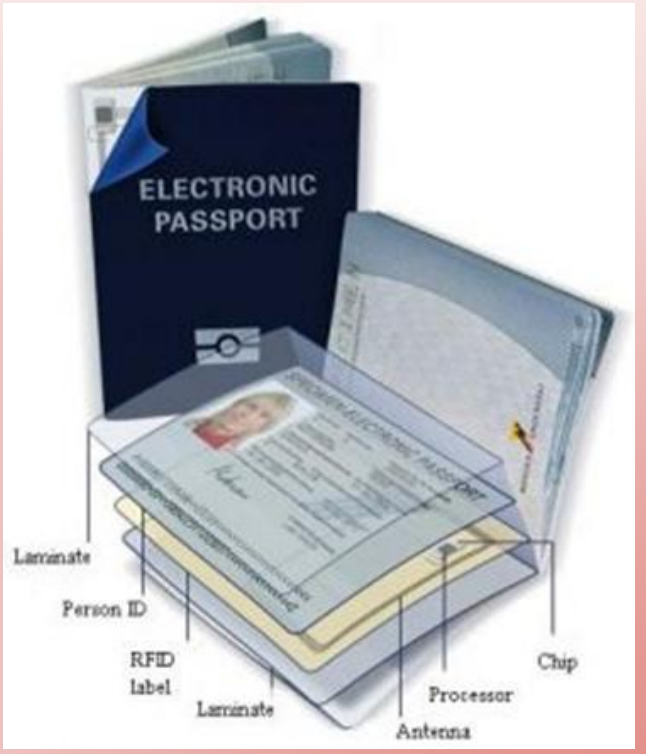
Outline

- **Why** was this project launched ?
- **What** are our aims ?
- What will we deliver ?
- **How** is the project structured ?
- **Who** are we ?

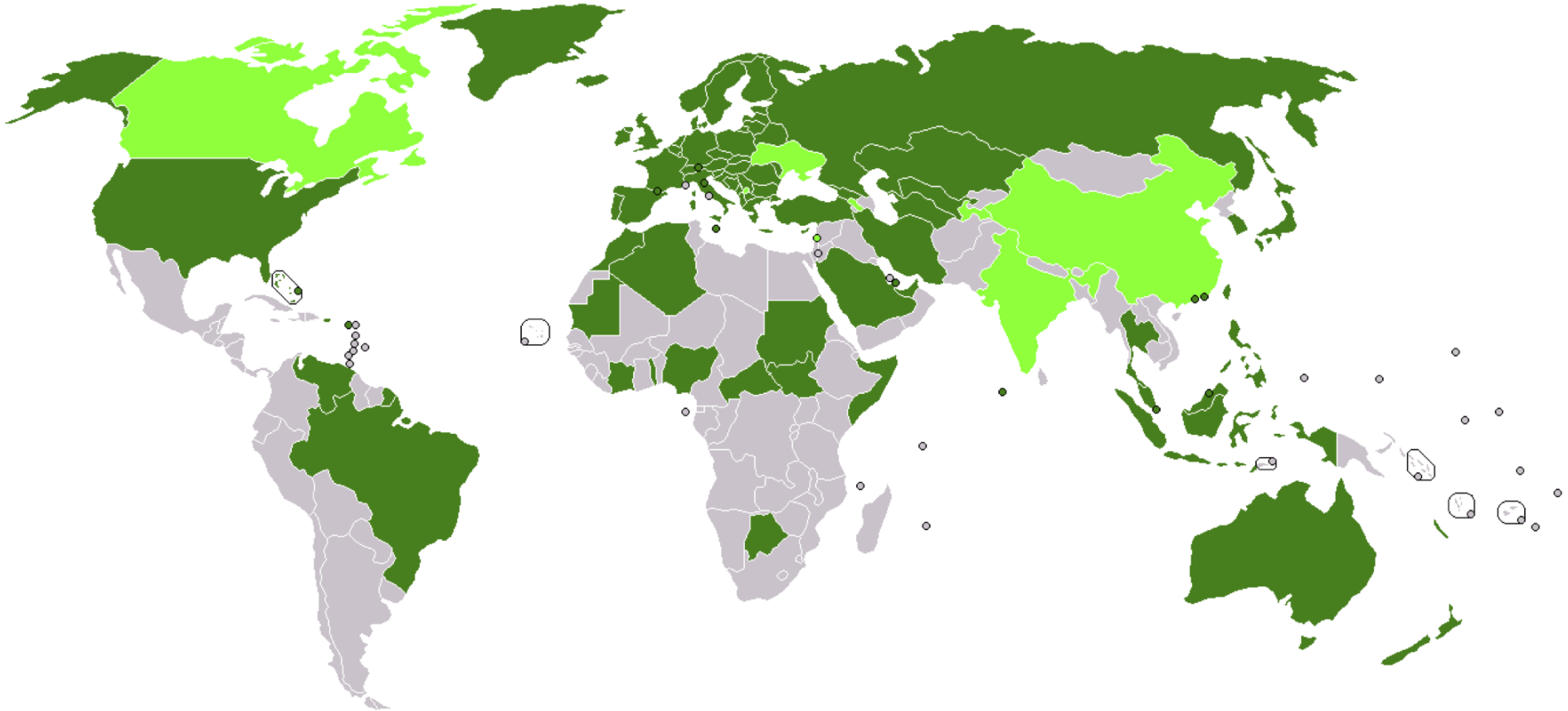
The ePassport

- **High efforts** to make **travel documents more secure**, especially since September, 11
- Launch of the **ePassport**
  - specified by **ICAO**
  - most difficult to forge travel document ever
  - **embedded chip**
  - **biometry** for ID checks





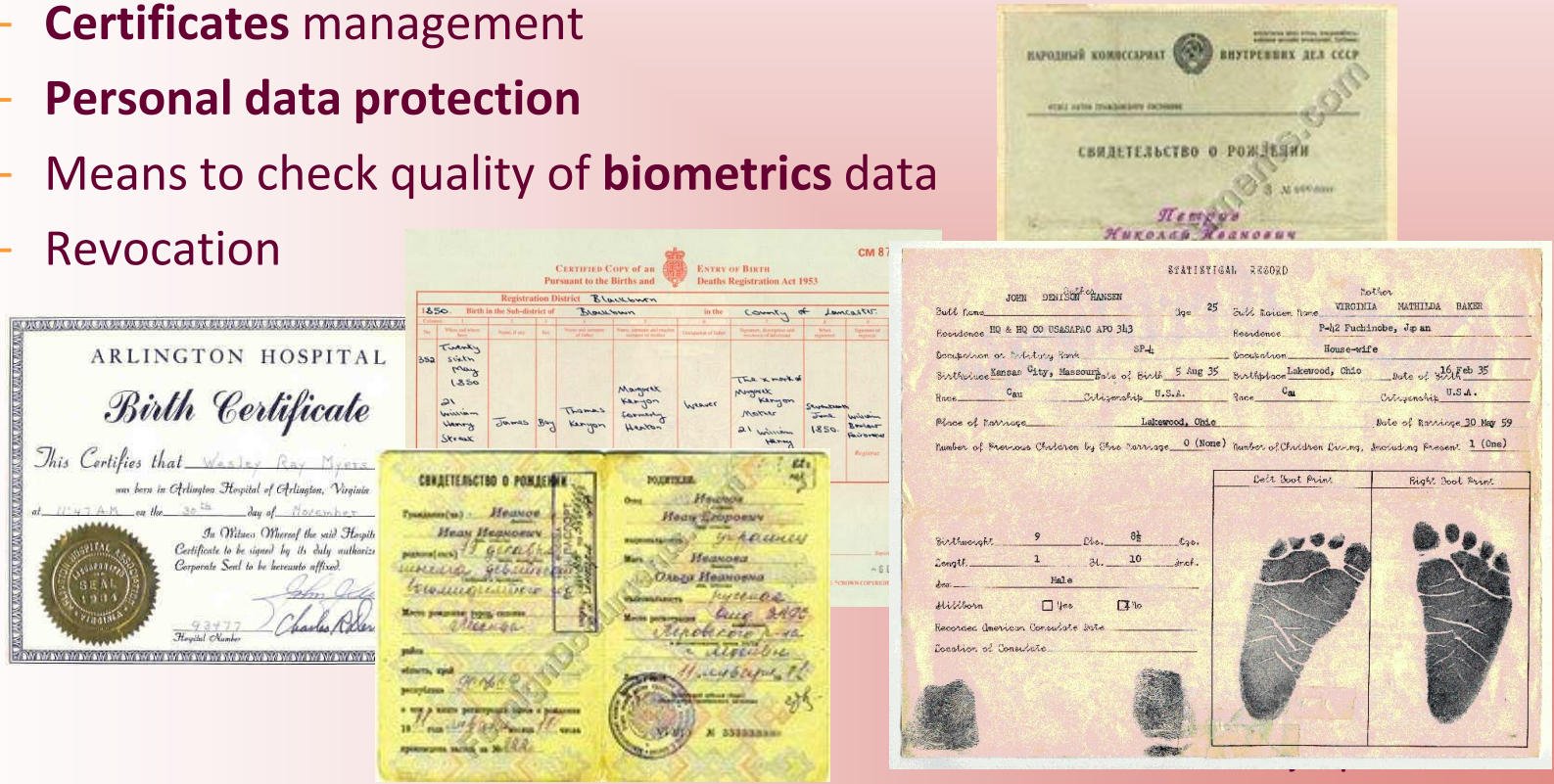
Success in ePassport deployment



345 million ePassports issued by 93 states
(ICAO estimates in July 2011)

But …

- After several years of use, some weaknesses became apparent in
  - ePassport **issuing** process, security of **breeder documents**
  - **Speed** of ID checks at borders
  - Connections with **remote data bases** (SIS, VIS, Eurodac, PNR, ...)
  - **Certificates** management
  - **Personal data protection**
  - Means to check quality of **biometrics** data
  - Revocation



FIDELITY general objectives

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

Technical objectives

- Study vulnerabilities and limitations of the current ePassport
- Develop technical solutions based on existing technologies, **and new technologies** to address the identified **security or privacy issues.**
- Study related **ethical, legal and societal aspects**
- Identify necessary associated **socio-political measures** (such as regulations, laws)
- Study a future ePassport **architecture based on a privacy-by-design** approach.

Technical objectives (cont'd)

- Demonstrate how FIDELITY solutions can be integrated **into the existing ePassport infrastructure.**
- Validate robust technical solutions and provide recommendations for **securing breeder documents and travel documents issuing processes.**
- Assess the achievements through a set of **demonstrators** representing the typical ePassport use cases, with the direct involvement of **end-users**
- Elaborate recommendations for the **improvement** of the ePassport (& MRTD)
- Prepare technical proposals for introduction in the **standardisation** process at the **ISO and ICAO** level.

Main project results

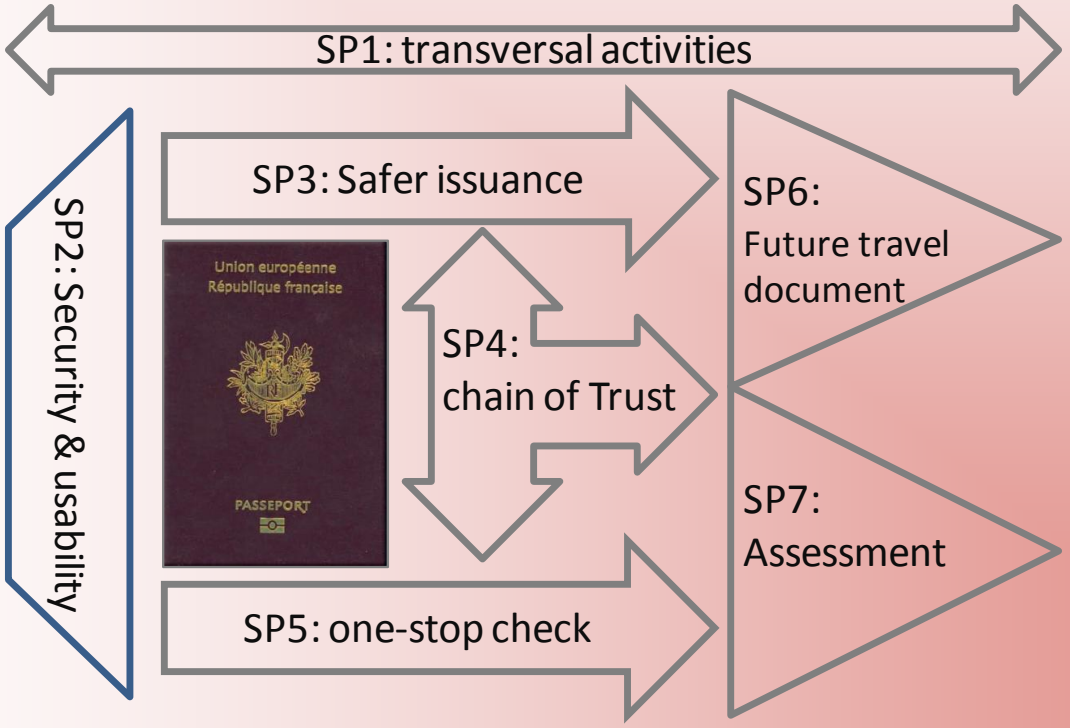
- ePassport issuance:
  - Recommendations for **reliable breeder** document management processes
  - Recommendations for **secure** ePassport application processes
- ID controls at borders:
  - Secure, **highly integrated**, and user-friendly **fixed** and **mobile** terminals
  - **User-friendly** ID check solutions with advanced "**on-the-fly**" biometric sensors
  - **Privacy-by-design** based solutions
  - Recommendations and concepts for **next generation travel documents**
  - Recommendations on how to improve (end-to-end) **security** and the **usability** of ePassports

Project results (cont'd)

- Management of certificates:
  - An architecture and protocols for a secure **management of certificates**; authentication of holder with and without PKI.
- **Ethical**, **legal** and **sociological** aspects:
  - Studies, guidelines and recommendations for the implementation of privacy-by-design
- **Demonstrators** for the assessment of solutions developed in FIDELITY based on a set of use cases:
  - A reliable ePassport issuance process
  - **One-stop-check** solution for ID checks at borders
  - ID check solution with a secure mobile inspection terminal,
  - Generation of ID elements ranking indicators

FIDELITY work structure

- Project duration : **48 months**
- Start date: **1 Feb 2012**



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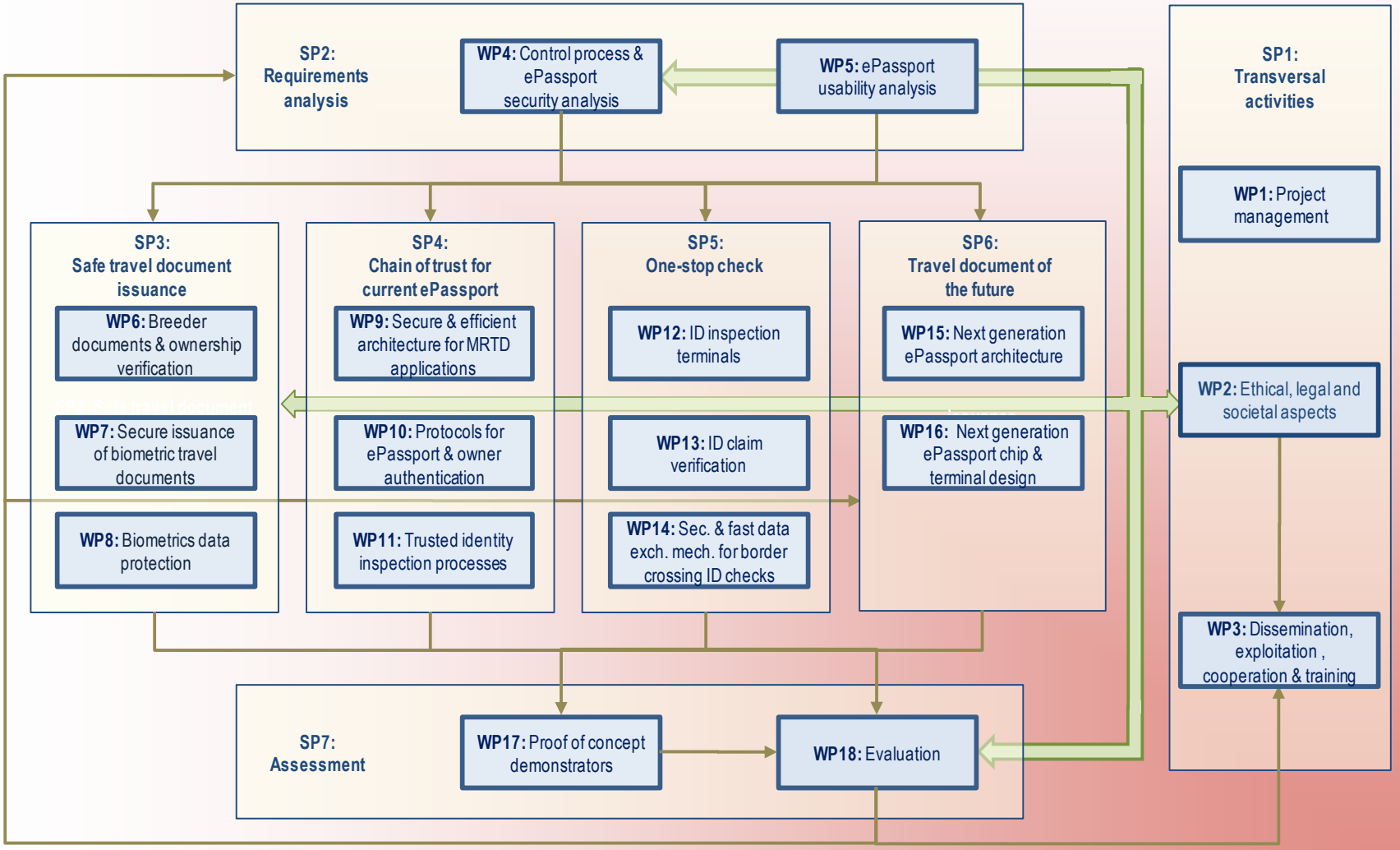

FIDELITY consortium

Industry:

SAFRAN Morpho

BUNDESDRUCKEREI

SELEX ELSAG Secure Networking Solutions A Finmeccanica Company

THALES

Users:

Bundeskriminalamt

MINISTÈRE DE L'INTÉRIEUR, DE L'OUTRE MER, DES COLLECTIVITÉS TERRITORIALES ET DE L'IMMIGRATION

MINISTERO DELL'INTERNO

Immigratie- en Naturalisatiedienst
Ministerie van Binnenlandse Zaken en Koninkrijksrelaties

Academic partners:

HØGSKOLEN I GJØVIK

KATHOLIEKE UNIVERSITEIT LEUVEN

h_da HOCHSCHULE DARMSTADT UNIVERSITY OF APPLIED SCIENCES

FOI

Fraunhofer IGD

ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA

Linköping University

Institute of Baltic Studies

SME:

Biometrika

kxen Predictive Power. Infinite Insight.

ARTTIC INTERNATIONAL MANAGEMENT SERVICES

Advisors:

Advisory board composed of 12 experts from 10 countries representing MS ministries, police, data protection agencies, and consultants

FIDELITY

SEVENTH FRAMEWORK PROGRAMME

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Thank you for your attention

Takk for oppmerksomheten

FIDELITY coordinator

sebastien.brangoulo@morpho.com

Technical representative for Morpho

julien.bringer@morpho.com

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