



# Testing the borders of the future:

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NATIONAL PERSPECTIVES FROM THE GREEK LAND AND SEA BORDERS PILOT AND MOVING TO SMART BORDERS BY 2018

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Ministry of the Interior and Administrative Reformation,  
Hellenic Police Headquarters

Trier, 29-30 September 2016  
ERA Conference Centre Metzger Allee 4,  
Trier





# Overview

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- I. **Smart Borders Strategic Plan 2014-2020**
- II. Smart Borders in a Nutshell
- III. Relative Research & Pilots
- IV. Beyond the Smart Borders Proposal
- V. Summary





# Hellenic Police Doctrine

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- Research
- Pilots
- Operations



# Smart Borders Strategic Plan 2014-2020



2018 - 2020	National Smart Borders		Smart Policing
2015 - 2018	BODEGA Human Factors Toolbox		
2013 - 2019	FP7 – FastPass <b>(Sea)</b> (2013-2016)	Athens International Airport ABC Pilot <b>(Air)</b> (2015-2017)	H2020 - BES <b>(Land-Train)</b> (2016-2019)
2013-2015	Smart Borders Initiative (Baseline) (2013-2015)		







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# The initial Proposal

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- Entry Exit System
- Registered Traveler Program
- SBC Amendment





# Proof of Concept

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- Technical Study
- Pilot





# The Technical Study Main Findings

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## ■ EES

- TOM A (*Using only FI and no systematic 1:N identification*)
- TOM B (*Using FI, 4 FPs and systematic 1:N identification at first entry*)
- TOM C (*Using FI, 8 FPs and systematic 1:N identification at first entry*)

## ■ RTP

- TOM M (*fingerprints and photo being part of the registration in the RTP application process (VE)*)
- TOM N (*rely on the existing biometrics of the EES (VE)*)





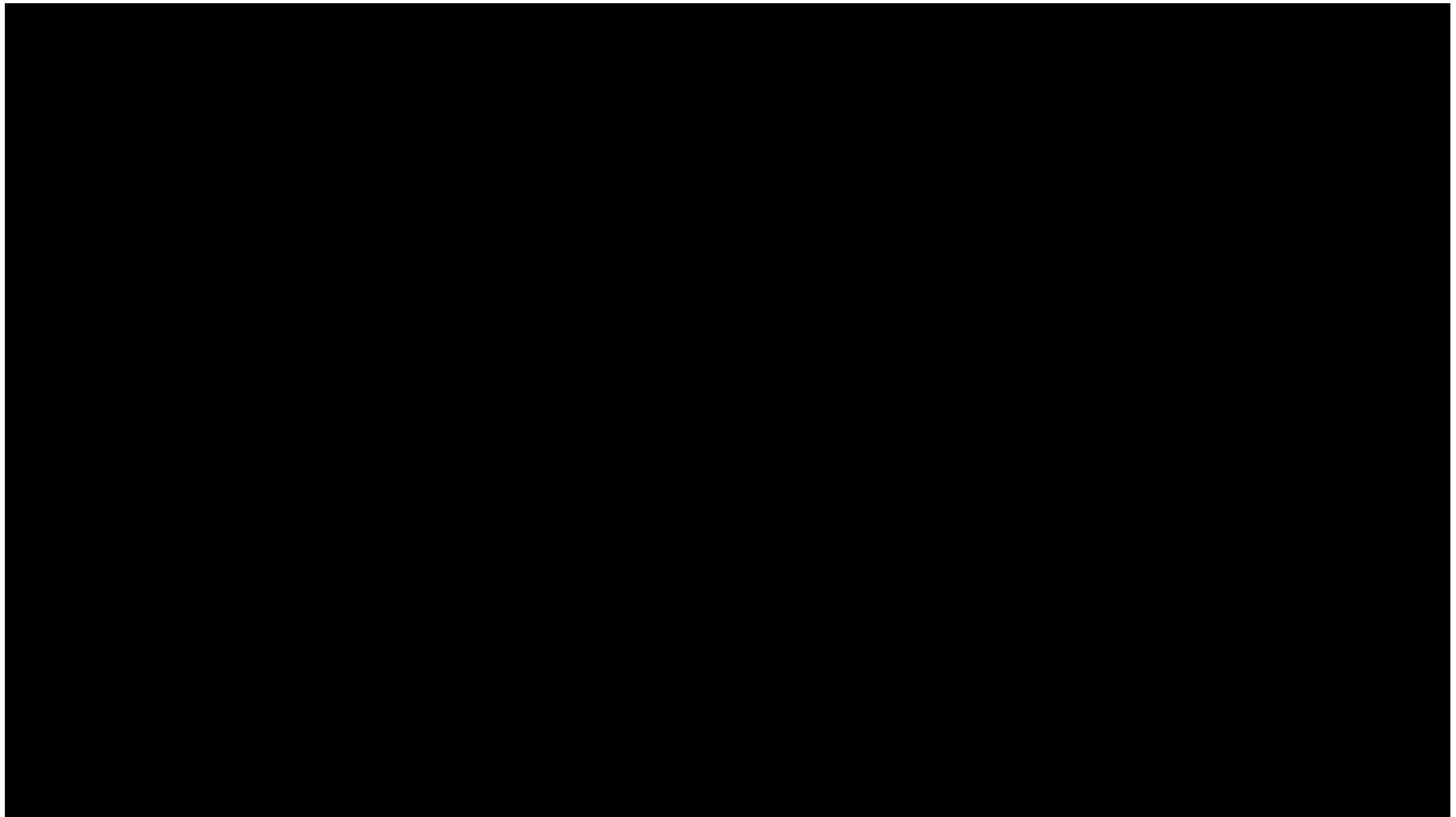
## Smart Borders Pilot

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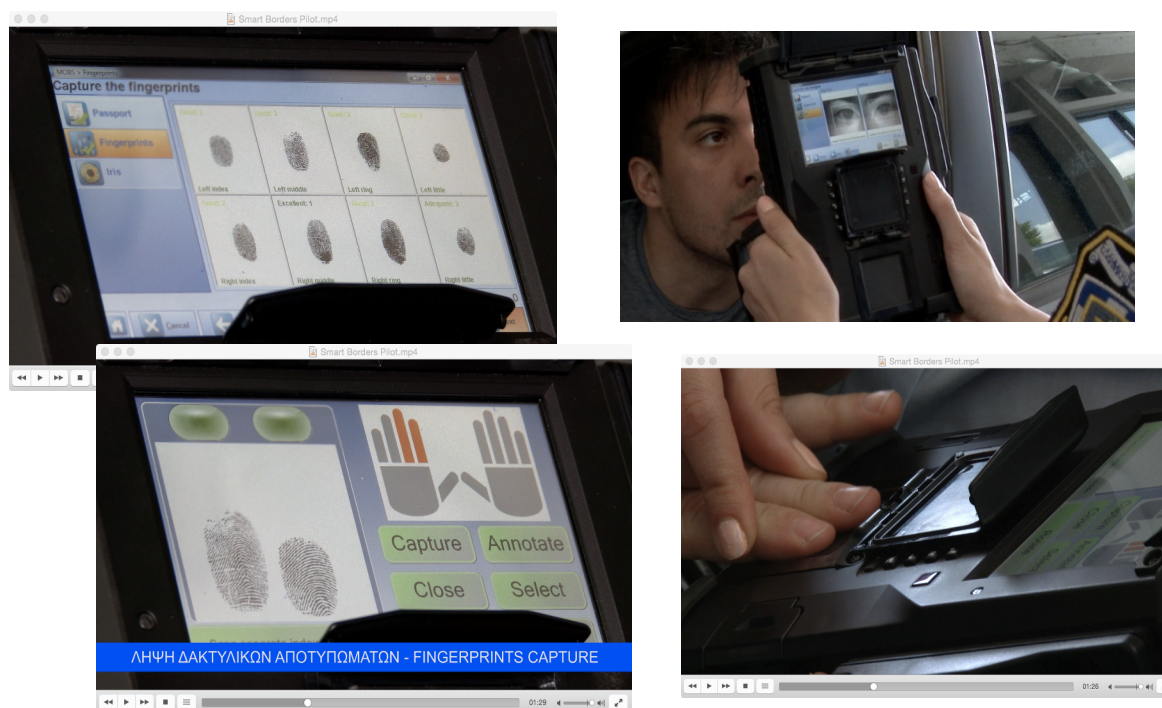
- **Kipoi Evrou** (17/04/2015 – 19/08/2015)
  - Checks using hand-held device
- **Port of Piraeus** (04/05/2015 – 09/08/2015)
  - On-board checks using mobile suit-case



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# Smart Borders Pilot: Kipoi setup





## Smart Borders Pilot: Kipoi TC's

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- TC1: Enrolling 4 fingerprints
- TC2: Enrolling 8 fingerprints
- TC3: Enrolling 10 fingerprints
- The above were always combined with:
  - TC5: Capture of iris pattern







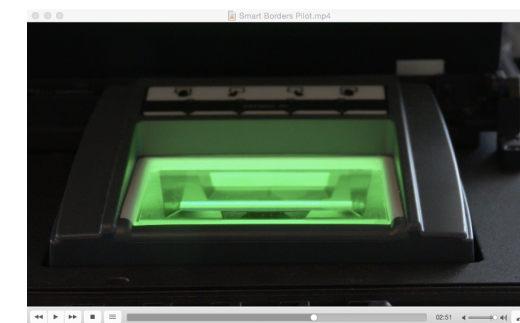
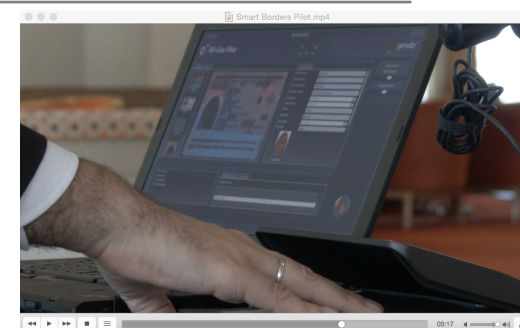
## Smart Borders Pilot: Kipoi Results

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- The device could be helpful in case of large queues
- The device is sufficient for max 4 fingerprints
- Iris capture was difficult in eastern Asian travelers
  - It would be interesting to test this device for facial enrollment



# Smart Borders Pilot: Piraeus setup





## Smart Borders Pilot: Piraeus TC's

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- TC1: Enrolling 4 fingerprints
- TC4: Enroll live facial image
- TC6: Capture facial image from e-MRTD
- TC7: Verification of FI captured from e-MRTD against a live facial image





## Smart Borders Pilot: Piraeus Results

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- An end-2-end process would be more enlightening
- Photo was very reliable and more acceptable
- Process helpful, the device not very reliable
- Travellers Reluctant, hesitant, suspicious, sceptical mainly due to the fingerprints





# The amended Proposal

## Entry Exit System

- 4 fingers + Facial Image
- EES + VIS interoperability
- 5 years retention period
- Law Enforcement Access

## SBC amendment

- Regulates ABC systems
- National Facilitation Programs
- Facilitation of Border Crossings





# National Facilitation Programs

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- Optional for MS
- Voluntary for Travelers
- Not centralized
- Shall be assessed before the end of the third year of application of this Action in order to conclude whether to be established as a Union Program
- Derogation to the thorough checks
- How to ensure harmonization?





## The Verdict

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- The abolition of stamping: the most groundbreaking feature in Smart Borders
  - Shall reduce dramatically the border control time
  - Promotes Border Control Automation
  - It may lead to a paperless Passport
- National Facilitation Programs need to further harmonized and promoted
- ABC and Facilitation systems need to be further standardized between MS





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# Taking the Smart Borders Pilot One Step Further



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# The FastPass Profile



a harmonized, modular reference system for all  
European automated border crossing points

## Facts:

Project start: **1.1.2013**

Project duration: **4 years**

Funding: **EU FP-7 Security**

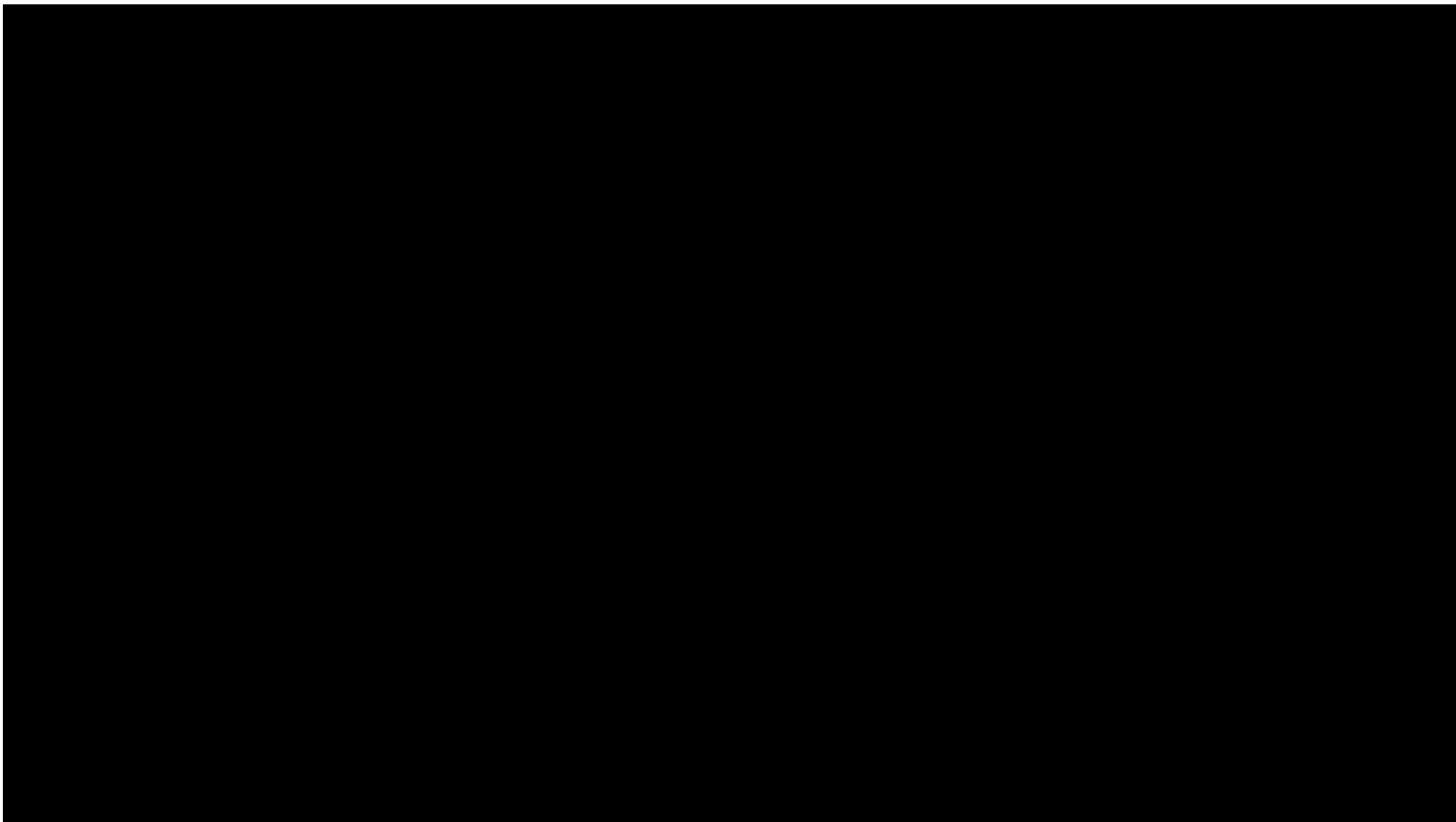
Coordinator: **Markus Clabian, AIT Austrian Institute of Technology**

Consortium: **27 partners**



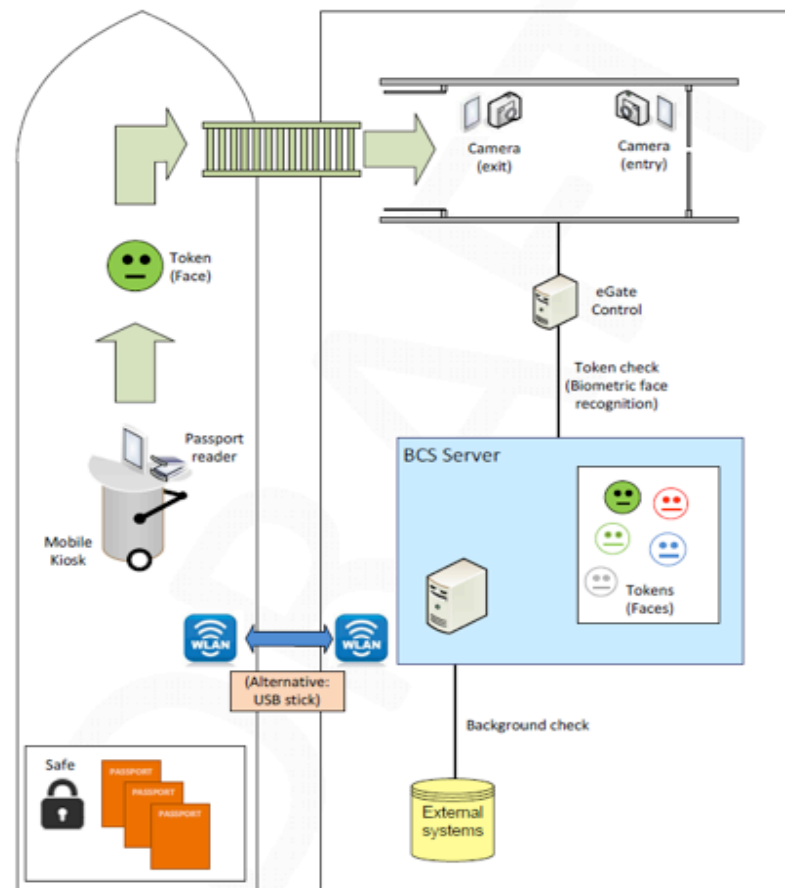
Source: <https://fastpass-project.eu>





## FastPass sea

(Last update: 03.12.2014)





# FastPass Concept Innovations

Semi-  
Paperless  
Process

Self-Service

Smart Borders  
Ready

Open-Gates  
Approach  
Ready

Integrates  
Ship's Security





# Smart Borders – FastPass

## Greek Sea Borders Scenario Comparison

### Smart Borders Pilot

- 4 fingers Enrollment
- Live Facial Image Capture
- Capture facial image from e-MRTD
- 1:1 Verification
- **NO** 1:n Verification
- Manual Process
- **NO** End-to-End Process
- Max 125 enrollments per trip

VS

### FastPass Pilot

- **NO** fingers Enrollment
- Live Facial Image Capture
- Capture facial image from e-MRTD
- 1:1 Verification
- 1:n Verification (at the e-Gate)
- Self-Service (2 Kiosks + 1 e-Gate)
- End-to-End Process
- Max >350 enrollments per trip





# Athens International Airport ABC Pilot

- Private-Public Sector Collaboration
  - Procurement Published on 21/09/2016
  - Proposals evaluation during November
  - Rollout – Second quarter 2017
- Mainly based on the knowledge gained from Smart Borders Proof of Concept and Fast-Pass Project
- We envisaged to be established as a best practice for
  - Greek regional Airports
  - Greek Seaports



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# Human Factors

## The BODEGA Project Profile



Proactive Enhancement  
of Human Performance in Border Control



Source: <http://bodega-project.eu>

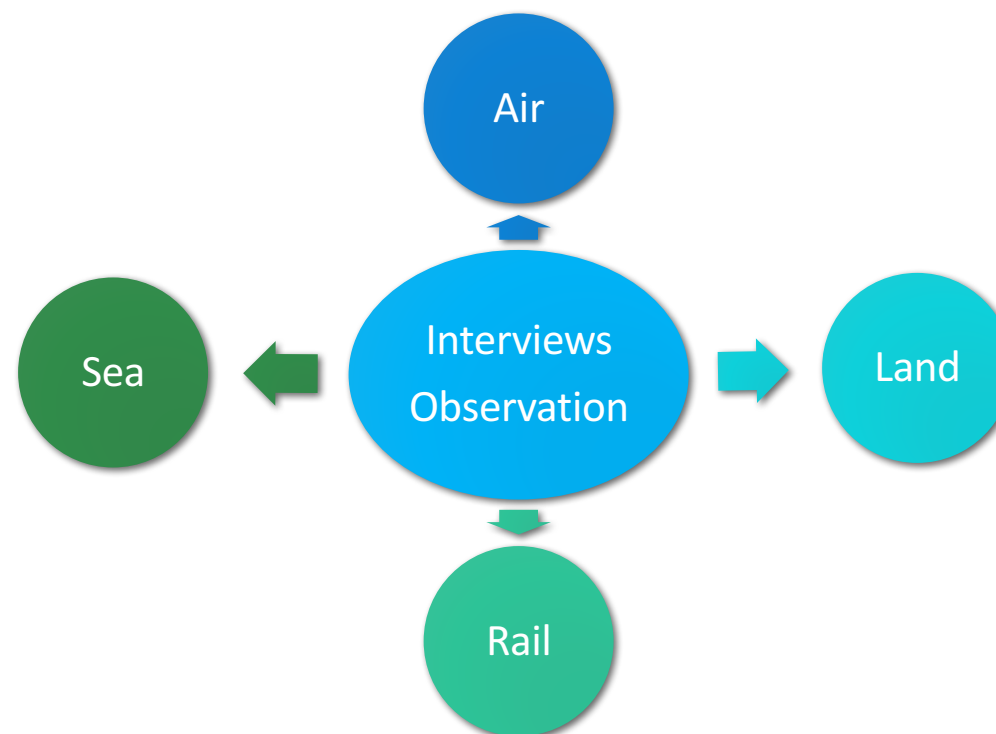


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# Field Studies



# Human Factors

## The BODEGA Project



- Harmonization/standardization in order to provide a unified service
- Better BGs/Travelers experience
- Leveraged effectiveness through automation
- Advanced security through better identification
- Redeployment of BGs to deal with other areas
  - Threat assessment -
  - Predictive Profiling





# Overview

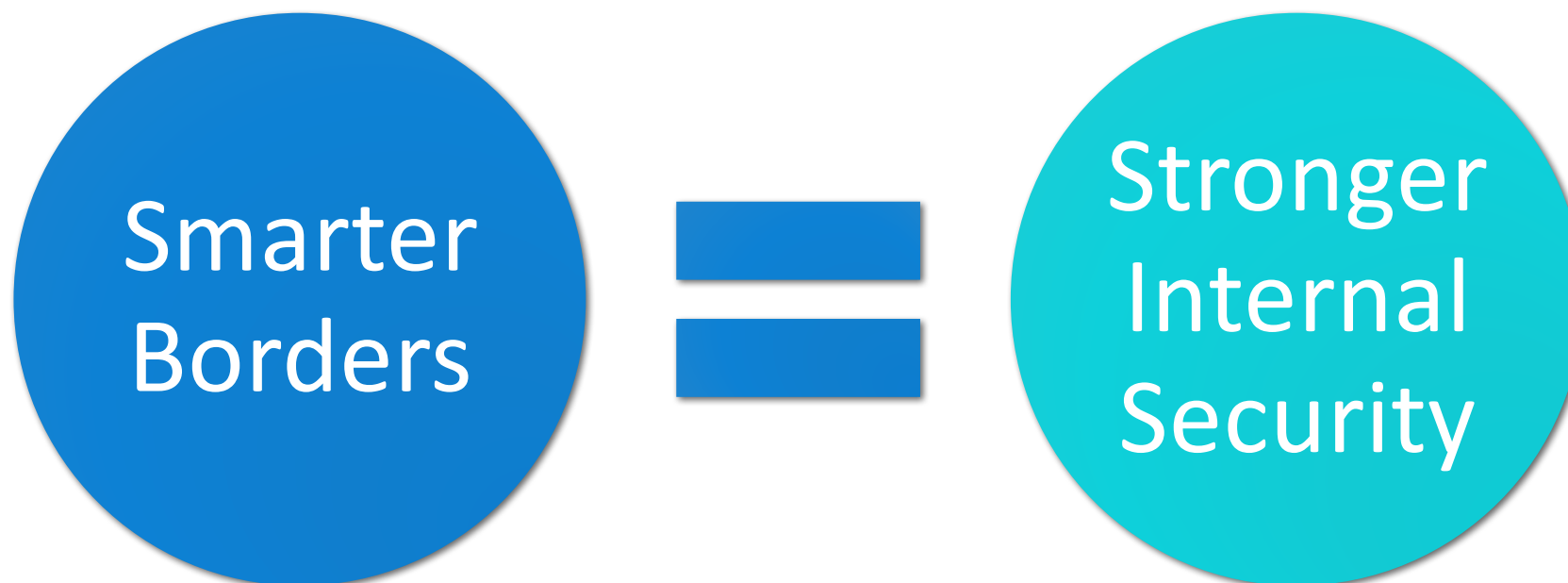
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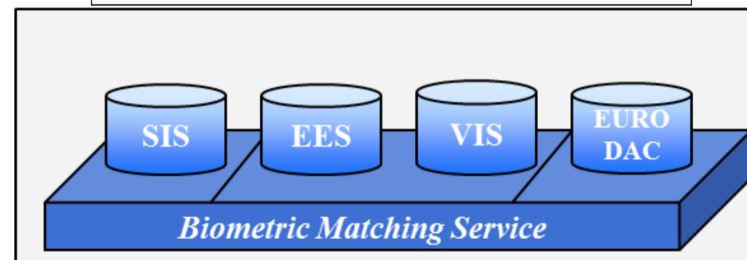
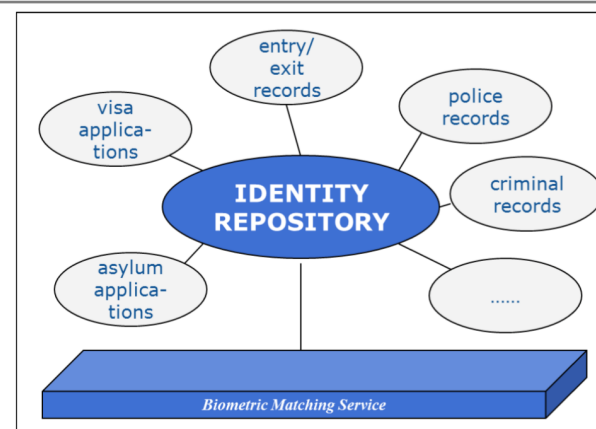
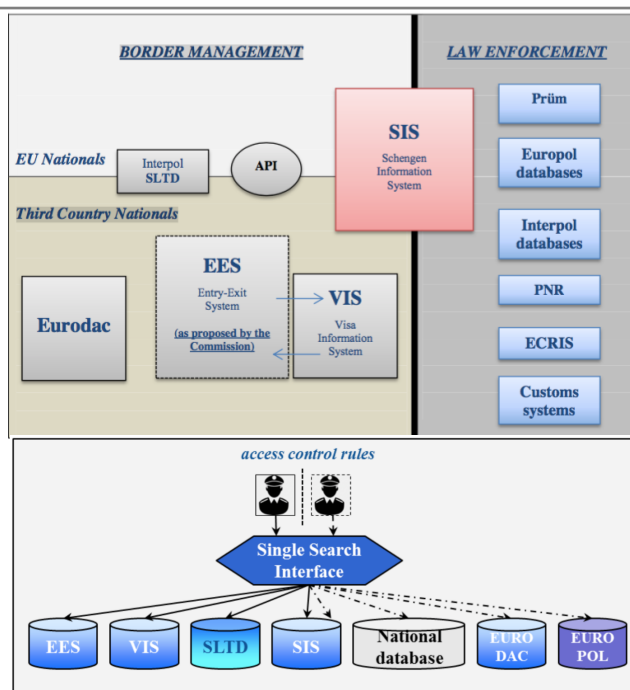


# Smart Borders - A continuous process

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# Main IS for Border Management & Law Enforcement



\* COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL,  
 "Stronger and Smarter Information Systems for Borders and Security", Brussels, 6.4.2016 COM(2016) 205 final





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## Summary

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- Smart Borders shall facilitate border control and shall provide awareness to all MS
- Further steps need to be done
  - Smart Borders implementation
  - Smarter Borders and Strengthen Internal Security Roadmap in the framework of European Border and Coast Guard





# Thank you for your attention!

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