

FastPass

Overview of planned scenarios

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FastPass

HARMONIZING AUTOMATED BORDER CONTROL FOR A SAFER AND CONVENIENT TRAVEL EXPERIENCE

Biometrics

Enhanced security through verification of face, iris and fingerprint data

800 Mio.

Estimated increase in airtravel passengers from 2.8 Billion in 2011 to 3.6 Billion in 2016



Document

Automated document authentication autonomously distinguishes between genuine and false documents



One Two Three

Passing a border is as easy as counting to three.

1. Put passport onto the reader
2. Step into the gate for biometric verification
3. Step out of the gate into your destination country

6318 Pax

Number of guests carried by the cruise ship Allure of the Seas

2.7 Mio.

The number of people that passed the Russian-Estonian border (Narva) in 2006. This is 2.14 times the whole Estonian population

Sea borders



Cruise ships
Significant income for
the EU tourist industry

Schengen borders code
Special handling of passengers

Fast loading and unloading
The most important factor

Passengers and crew
Mostly low risk

ABC can help
But needs customization

THEORY

PRACTICE

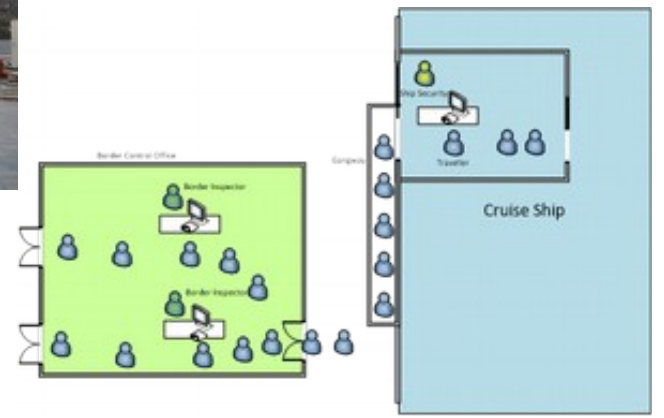
Cooperating with FastPass
The Port of Mykonos
The Hellenic Police
Louis Cruises



Arriving Thu 3 Jul 2014
7 Night 6 Greek Islands And
Istanbul Cruise, Cruising
From Greece
Ship **Cristal**

More details at
LOUIS CRUISES

Being built
New passenger terminal in Mykonos
Offers controlled environment for border
processing



Area of research

Careful use of personal data
Effective and economical

Open gate approach
Unobtrusive but secure

Must integrate
Existing cruise ship systems



Integration
Integrate into existing processes

Optimize
Find the sweet spot between
throughput and security

Design
Must work in the Mykonos business
environment
Must deliver benefits to stakeholders

Basic principle

Read e-MRTD
Capture biometric
features



Board ship



Disembark



Verify live image
against captured
image



Land borders



Land border scenario

Moravita border crossing point

- Situated in the south-western part of Romania, at the border with Serbia.
- Opened 24/7. Outdoor checks
- Transit of people and goods across the border with Serbia.
- 12 traffic lanes (Entry 4 vehicles&buses, 2 trucks; Exit – 4 vehicles&buses, 2 trucks)
- 85000 cars entering / 82000 cars exiting
- The passengers traffic figures for first 6 months 2013 at Moravita road BCP:
 - Entering (86872 – EU, 58864 TCN) – Total 145736
 - Exiting (78726 – EU, 59040 TCN) – Total 137766



Challenges

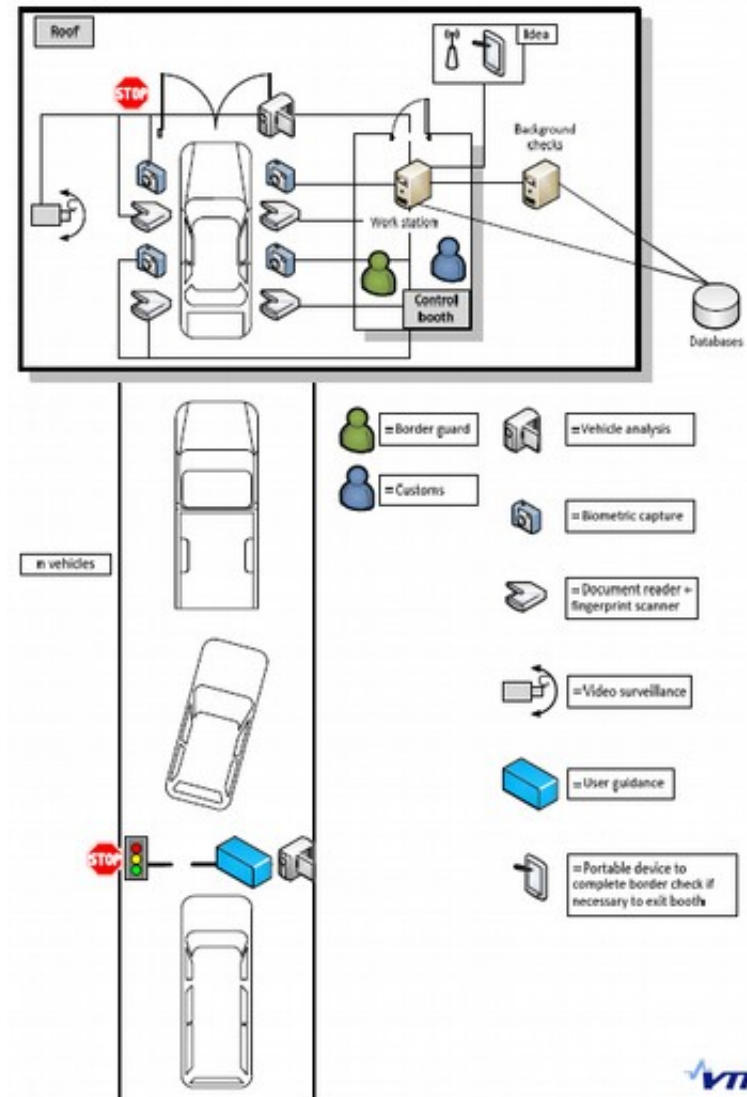
- The travellers cross with/inside vehicle
- Carry large amounts of goods (different risk profiles)
- Many third country nationals
- Single vehicle may carry different nationals
 - EU, TCN, Visa, Visa exempt
 - Different age (i.e. Minors)
- Additional stakeholders involved
 - Customs, road police, neighbouring state border police?
- Additional checks compared to air border
 - Car Registration certificate (all cars)
 - Driving license (all drivers, various types of documents)
 - Vehicle insurance
 - Transport license
 - Condition of the vehicle
 - Merchandise documents (possible VAT refunding)
 - Customs controls (illicit substances / items)
 - Customs clearances



http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/borders-and-visas/border-crossing/index_en.htm

Area of research

- Pre-registration of the driver
validate biometric- and vehicle-information
- Passengers can test the concept
gate
Single and multi-passenger vehicles
- Outdoor installation
Document scanner, biometry scanning, user interface
- Control booth
will be installed next to traffic lane
- Innovations
 - Especially in process and procedures
 - Outdoor ABC
 - Innovative combination of current technologies
 - Vehicle and people handling of an ABC
 - EU and non-EU travellers



Chosen scenario: regular vehicles

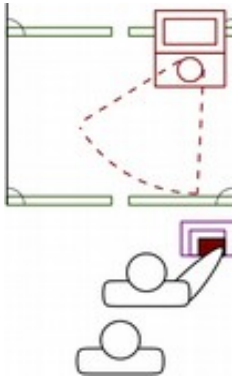
- **Why not pedestrians?**
 - Less pedestrian crossing points than for vehicles
 - Same principle as ABC gate on airports
- **Why not trucks?**
 - Involves many additional tasks necessary which are not yet automated □ No real benefit to automate border checks without automating other tasks as well
- **Why not busses?**
 - Two scenarios possible
 - Passengers step out and move through a gate
This is already done in Finland and the success is currently questionable
 - Checking inside the bus
Will be further considered but the main focus is on regular vehicles



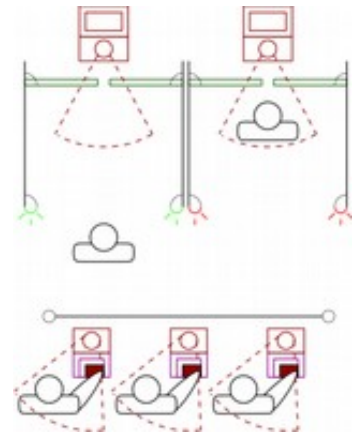
Air borders



Area of research



Stage 1 “Baseline Mantrap”: passport reading integrated in E-Gate; Innovation: biometric sensor, hardware/setup, usability.



Stage 2 “Segregated 2-step Kiosk”: passport check at Kiosk with face as token; identification from temporary DB at E-Gates.

Stage 3 RTP

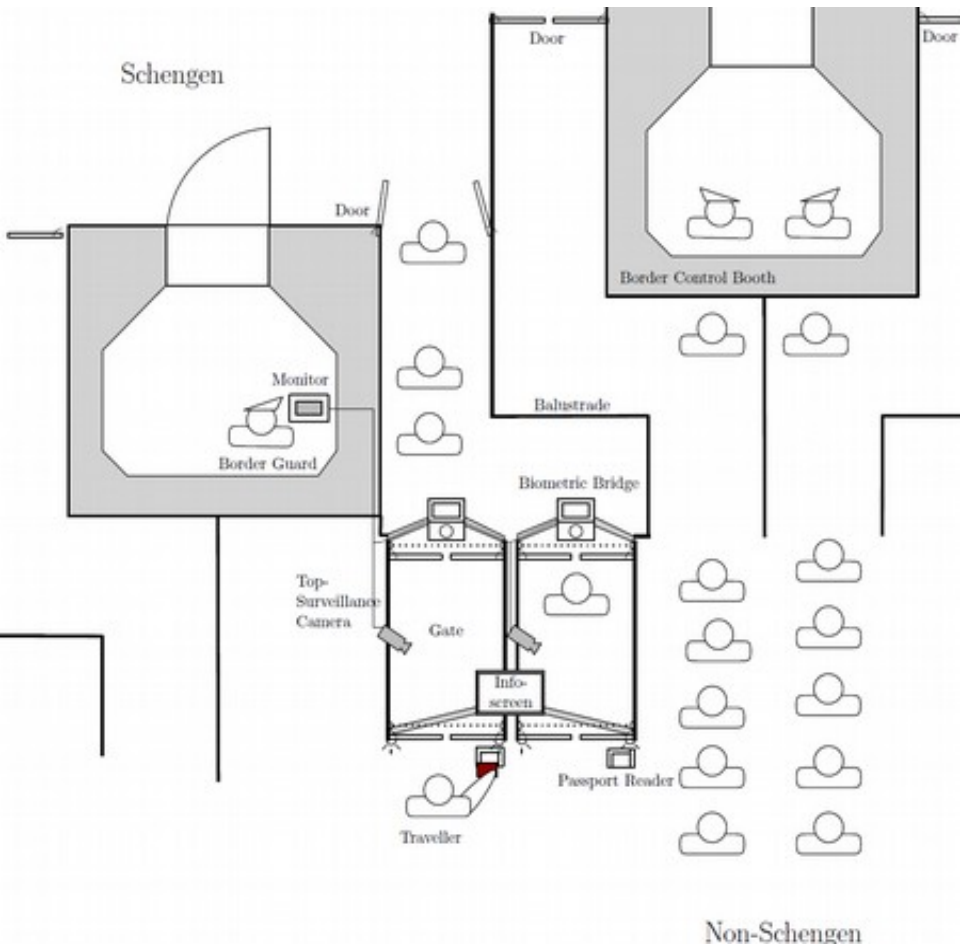
Preauthenticated users

With or without physical token?

(Currently discussed in smart border package)

To be tested: Accuracy, Security, Usability, Acceptability, Transaction time, ...

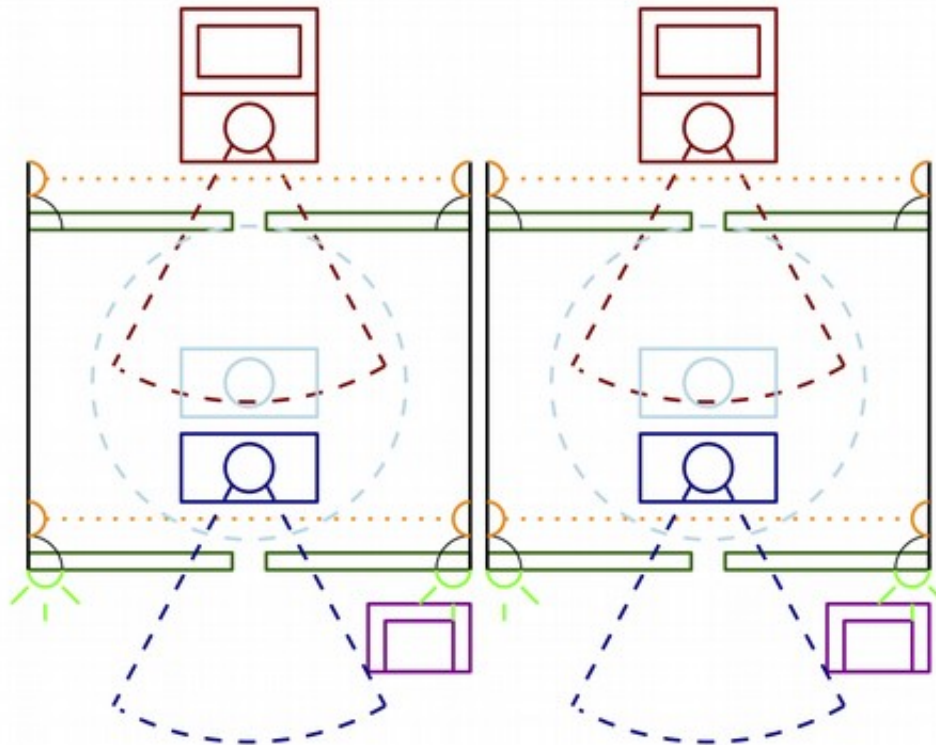
Demo site proposal



- Two parallel E-gates
- Up to four Kiosks
- Border guard at the end of the corridor
- Passenger always moves forward



Possible hardware setup

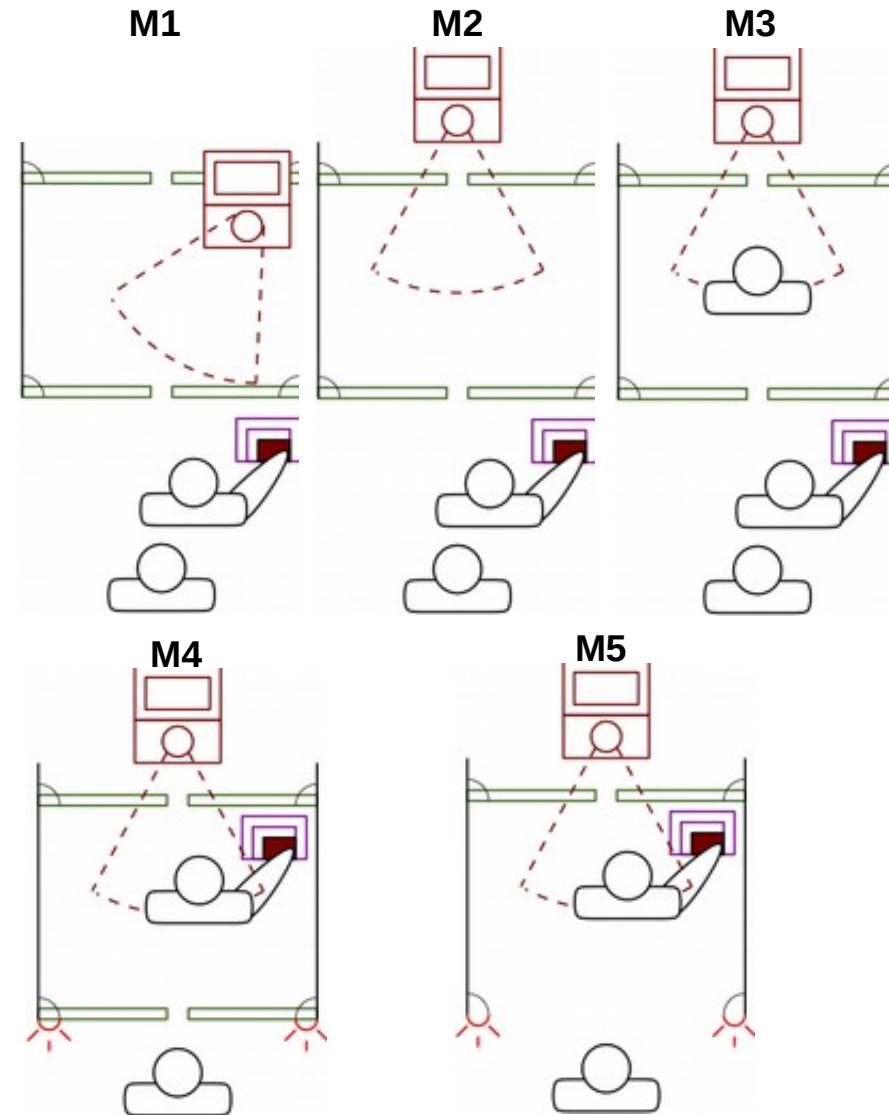


- Gate/Doors;
- Passport Reader;
- Light Barriers;
- Biometric Sensor (Face – optional also Fingerprint/Iris) & Monitor;
- Top Surveillance & Front Surveillance camera;
- Front Lights.

“Baseline Mantrap”

Scenarios of interest

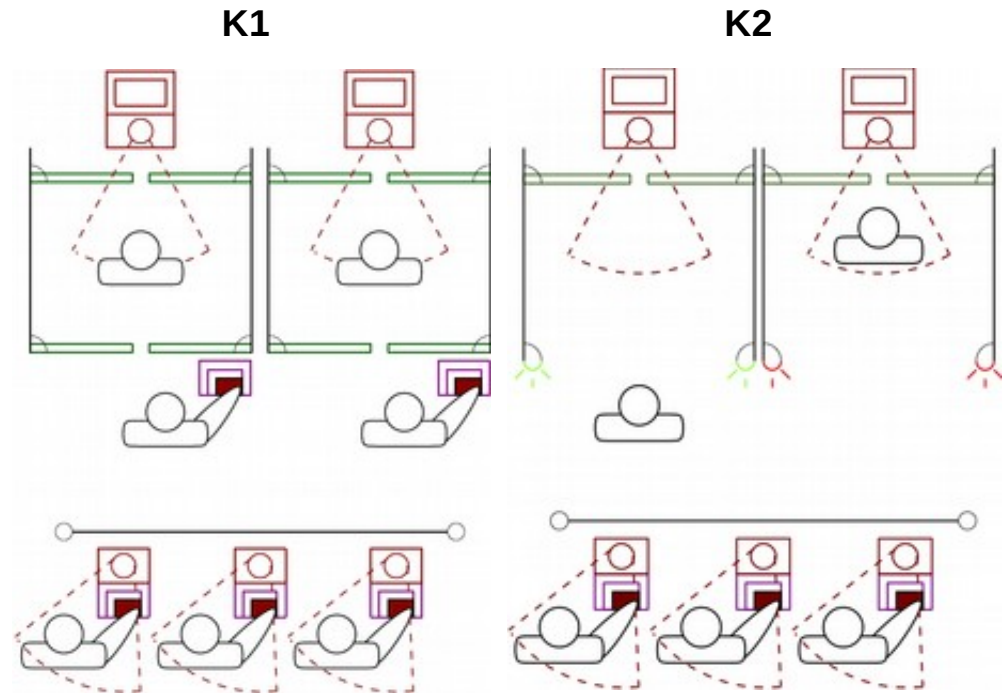
- **M1 “Classical Mantrap”**
reader at entrance, like “Easypass”
- **M2 “Mantrap Face-Bridge”**
like M1 with MODE face bridge
- **M3 “Mantrap Queue”**
parallel passport
reading/recognition
- **M4 “In-mantrap Kiosk”**
Kiosk inside mantrap
- **M5 “Virtual-door mantrap”**
like M4 with virtual first door



“Segregated 2-step Kiosk”

Scenarios of interest

- K1 “Passport token Kiosk”**
 passport check at the kiosk, token is the passport to use the Gate (MRZ as key)
- K2 “Face token Kiosk”**
 passport-check & face recognition at the kiosk, face is the token to use fastest gate, open entrance.



WWW.FASTPASS-PROJECT.EU

YOUR INPUT IS NEEDED!



The work has been supported by the FastPass project. The research leading to these results has received funding from the European Union Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 312583. This publication only reflects the author's view and the European Union is not liable for any use that may be made of the information contained therein. All document contained therein cannot be copied, reproduced or modified in the whole or in the part for any purpose without written permission from the FastPass Coordinator with acceptance of the Project Consortium.