

# ***Vision of a future passenger process & EU Research project FastPass***

***Biometrics Institute Seminar Identities at the Borders & Future of Travel  
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Schiphol Airport***

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## ***Today's presentation***

- ❖ Frankfurt Airport
- ❖ Airport challenges
- ❖ Passenger process – today and vision
- ❖ FastPass – a further step to the vision
- ❖ Enabling the vision

## ***Frankfurt Airport – a busy place***

- Encompassing 21 sq km, currently up to 94 aircraft movements per hour
- 2 runways + 1 runway for landings + 1 runway for takeoffs
- 2 passenger terminals and 1 AIRail Terminal (long-distance ICE train station)
- 55% of all passengers use FRA as a transfer gateway
- 132 flight gates, 221 aircraft positions

### **Traffic statistics\*:**

- 59,571,802 passengers
- Busiest day in 2014: 213,949 passengers
- 469,026 movements
- 28,164,889 pieces of baggage
- 2,083,495 metric tons of cargo





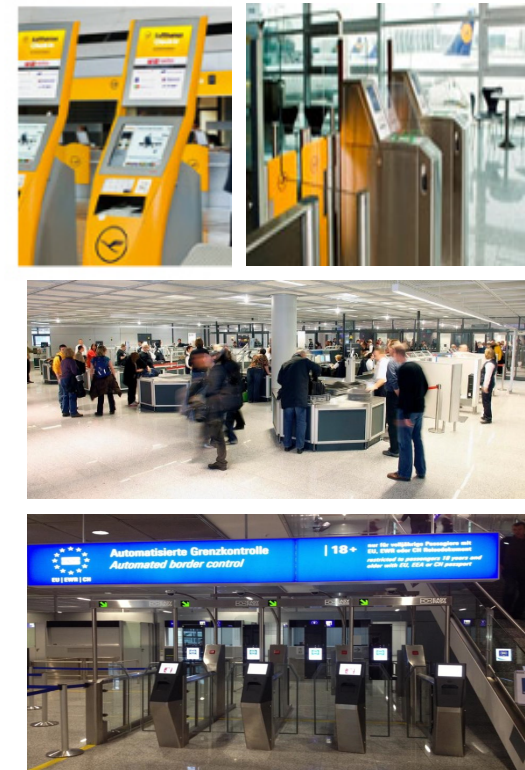
## ***Airport challenges***

- Increase of security requirements decreases throughput
- Capacity constraints in terminals and on airside
- Constantly rising cost pressures
- Demand of passengers for better travel experience
- Strong competition among airports
- New technological developments

## ***Passenger process - trends and drivers***

*Security requirements, capacity constraints and cost pressures will be met by...*

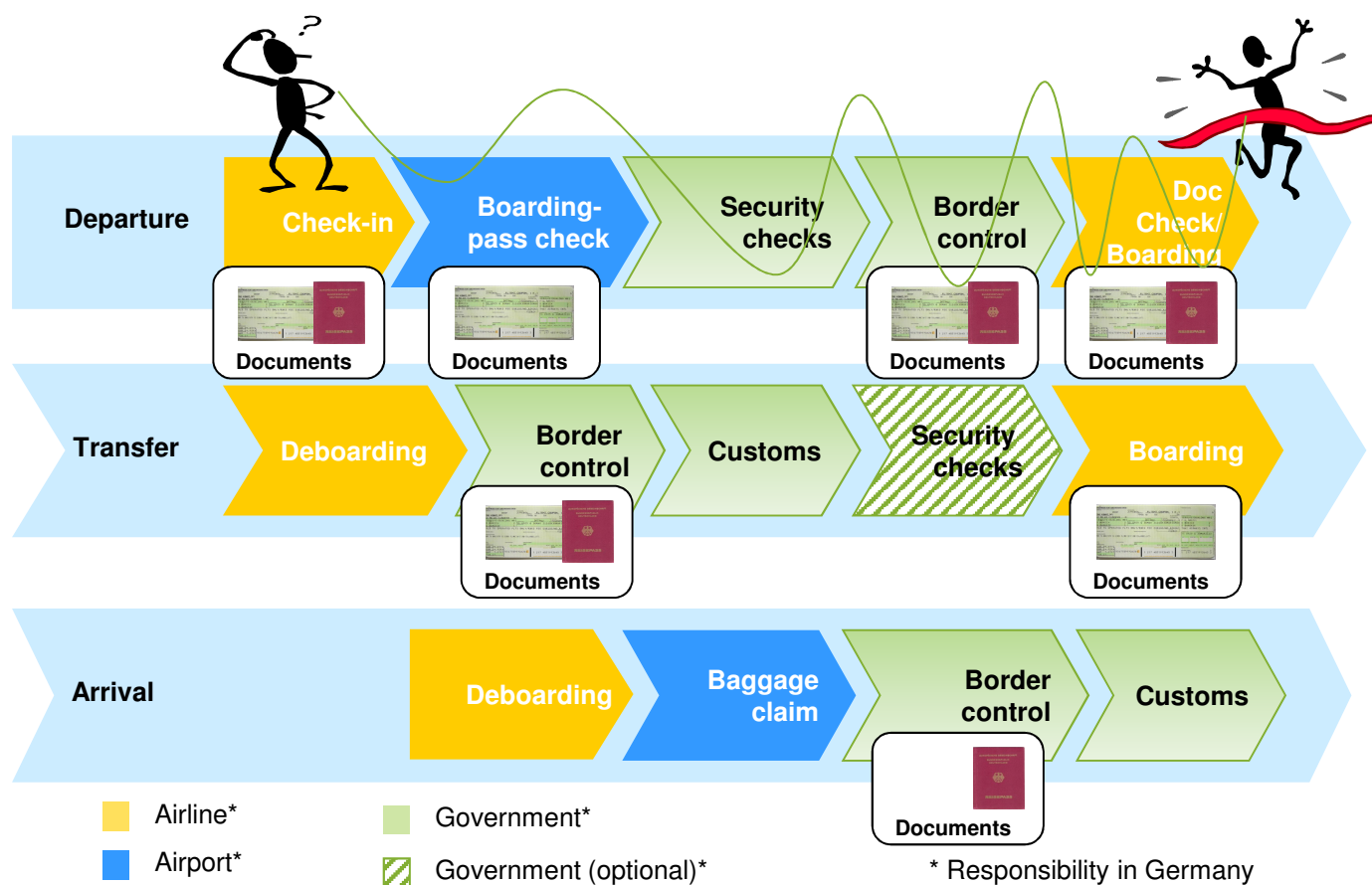
- Further automation
- Implementation of Self-Service Systems (Check-in, Bag drop, Rebook)
- Shifting process boundary „Off“-Airport (mobile services...)
- Higher throughput at security screening through risk-based security concepts, advanced screening technologies...
- Use of biometrics (at passport control)





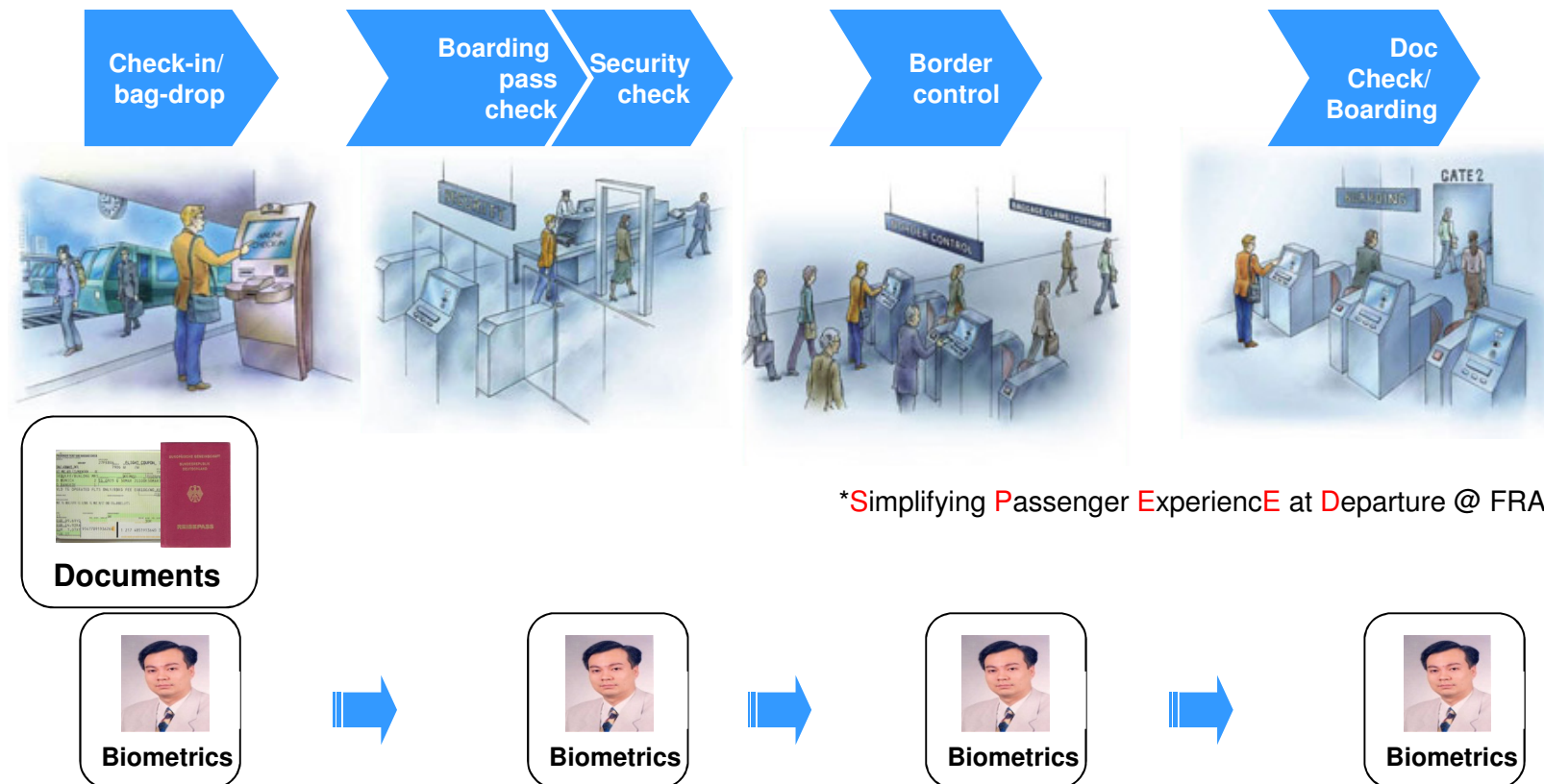
## Passenger process – snapshot!

Today's as-is process – passengers “hurdle” many process points and need to undertake multiple travel document checks



## Passenger process – Vision **SPEED@FRA**\*

*Future process – reduced number of stops and a paperless process*





## ***SPEED@FRA – Check-in***

*Single stop for passenger at the beginning of the journey*

### **Check-In & bag-drop:**

- Passenger checks in and completes pre-check for border passage at a check-in and bag-drop kiosk.
  - Reading of e-passport and biometrics (face).
  - Verification of passenger with e-passport via biometric check at kiosk. Capturing of actual biometrics and storing of template in local, temporary database.
  - Check of watchlist in SIS is triggered in background.
- Passenger completes check-in of bags.



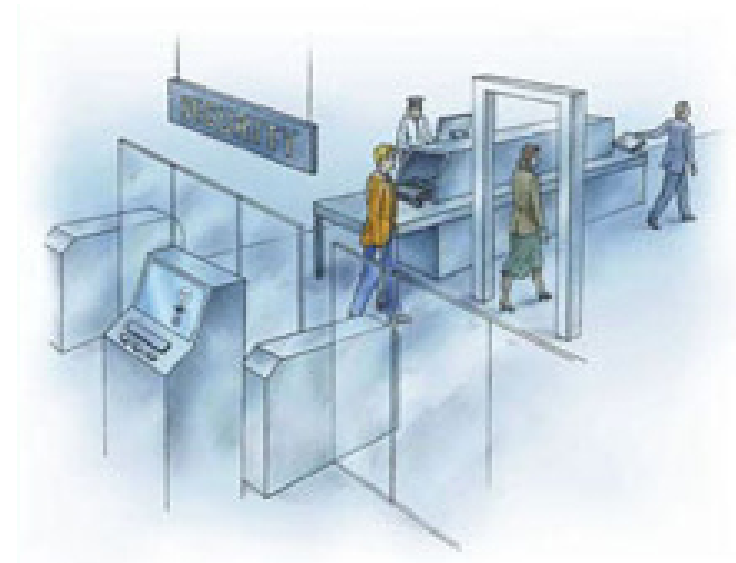


## ***SPEED@FRA – Boarding pass & Security check***

*Only “face showing” instead of paper boarding pass*

### **Boarding pass check/ security check:**

- Passenger approaches to the eGates at the boarding pass control.
- The face of the passenger is captured by a camera. Biometric identification (live face vs. template in temporary database). No showing of paper boarding pass necessary.
- Passenger goes through eGate and passes the security check (boarding pass check is integrated in security check point as access control).

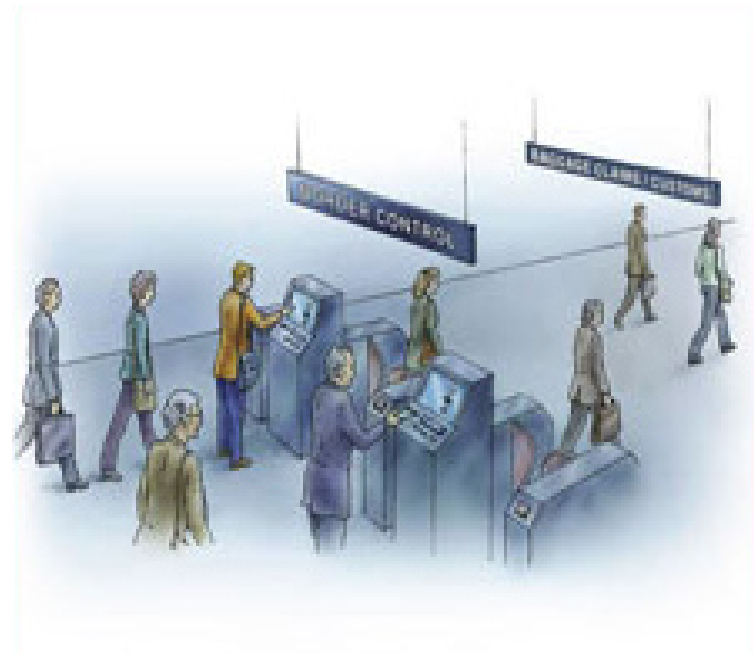


## ***SPEED@FRA – Border control***

*Border control only with biometrics*

### **Border control:**

- Passenger approaches to the eGates of the ABC.
- The entrance door of the ABC opens . The passenger enters the lane. The entrance door closes. The border check is carried out via biometric identification (live face vs. template in temporary database). No showing of passport and boarding pass necessary.
- There is no need to scan the passport before entering the ABC. This also speeds up the processing time at the ABC.



## ***SPEED@FRA – Boarding***

*Automated boarding only with biometrics*

### **Boarding:**

- Passenger embarks the aircraft with biometric identification at the eGate (live face vs. template in temporary database). No showing of passport or boarding pass necessary.
- Data in the temporary database are deleted automatically upon actual time of departure or after 24 hours.



## The FastPass Project – FastPass Consortium

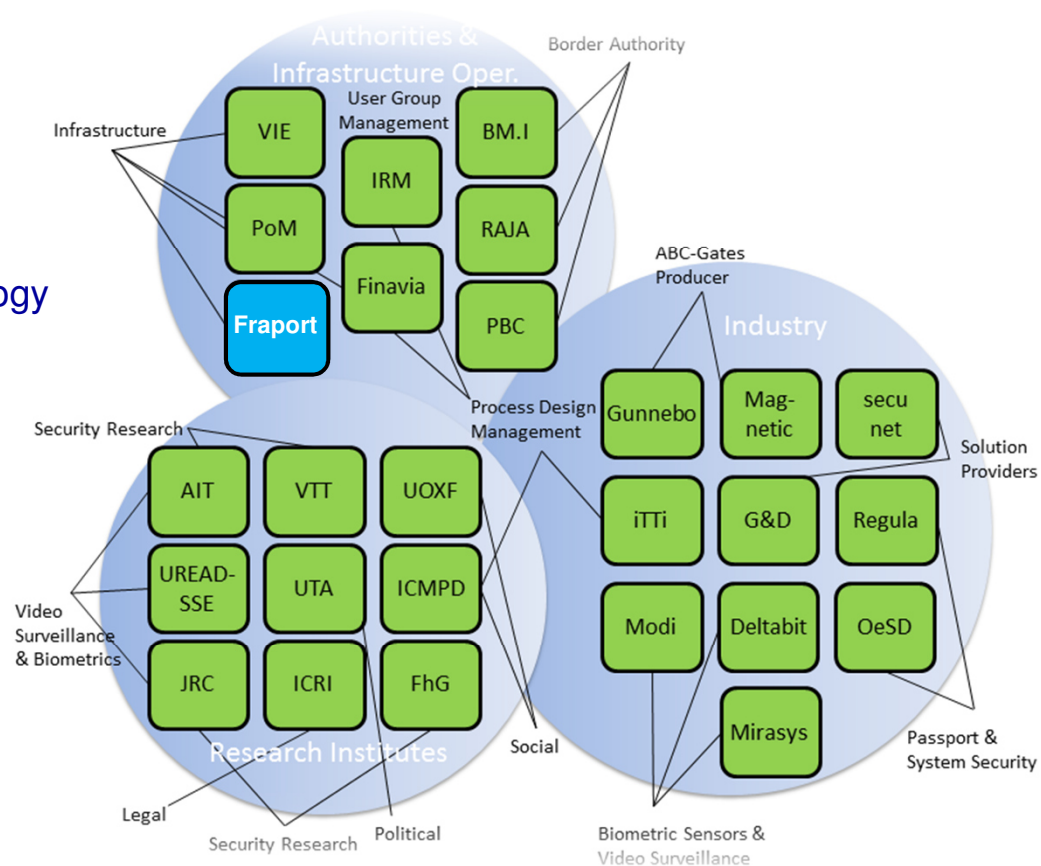
Project start: 1.1.2013  
 Project duration: 4 years  
 Funding: EU FP-7 Security

Coordinator:  
 AIT Austrian Institute of Technology

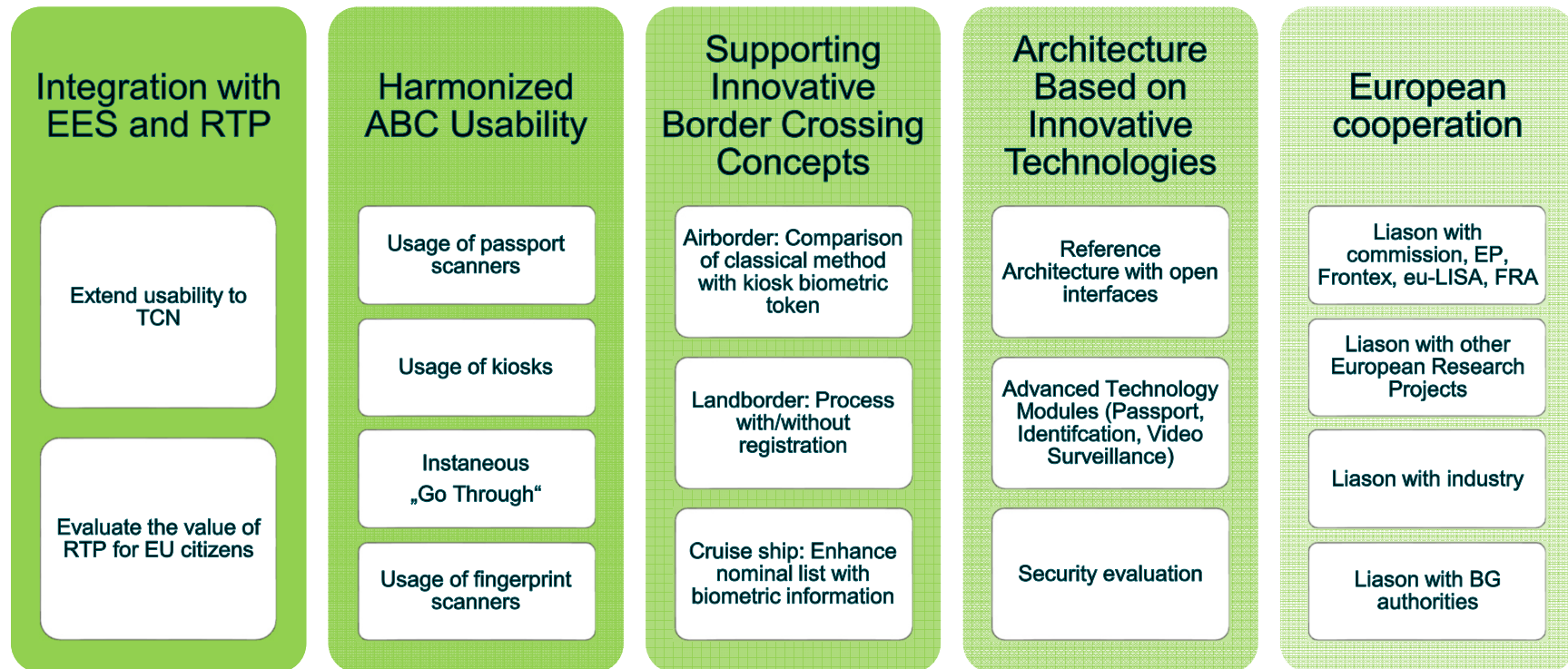
Further info:  
[www.fastpass-project.eu](http://www.fastpass-project.eu)

27 partners:

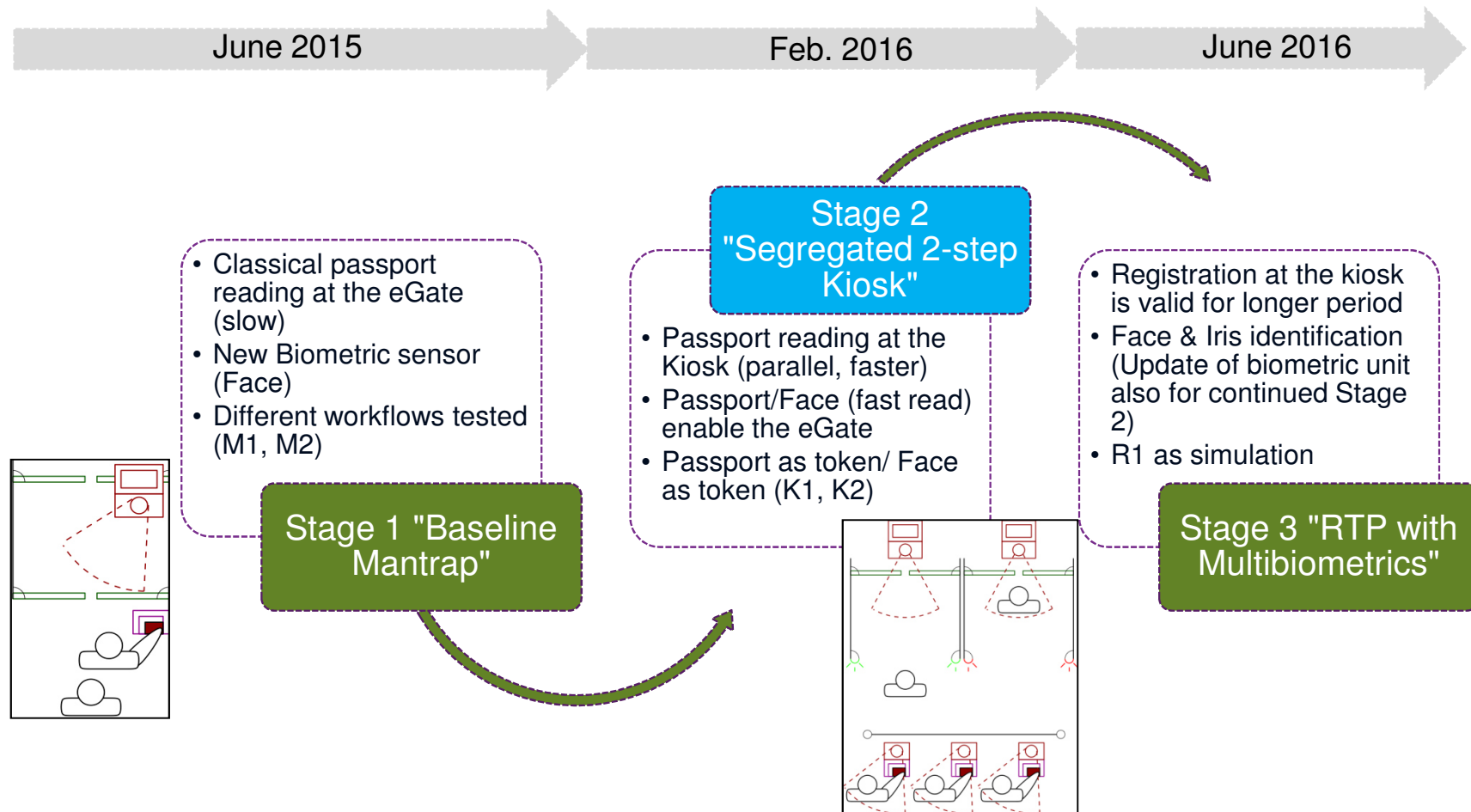
- 3 border authorities
- 4 infrastructure operators
- 11 industry partners
- 5 applied research centers
- 4 universities



## ***The FastPass Project – Objectives***



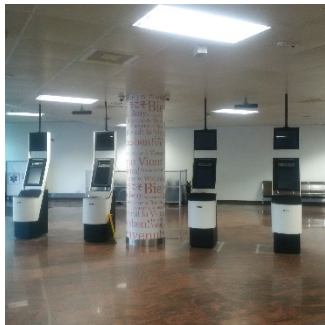
## FastPass – Scenarios for air border



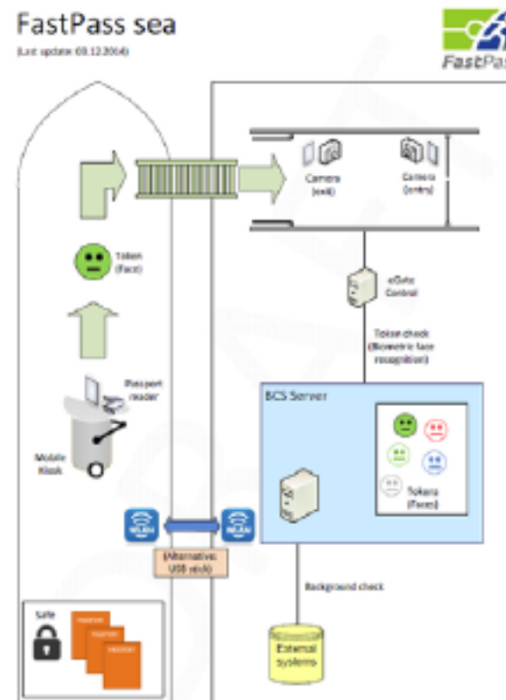


## FastPass – Pilots

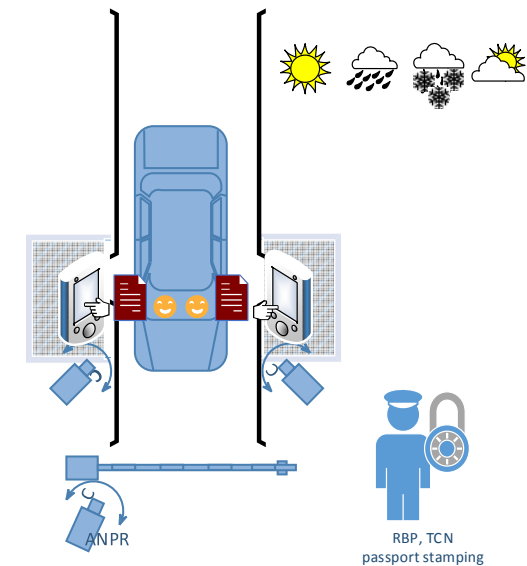
Air Border in Vienna



Sea Border in Piraeus

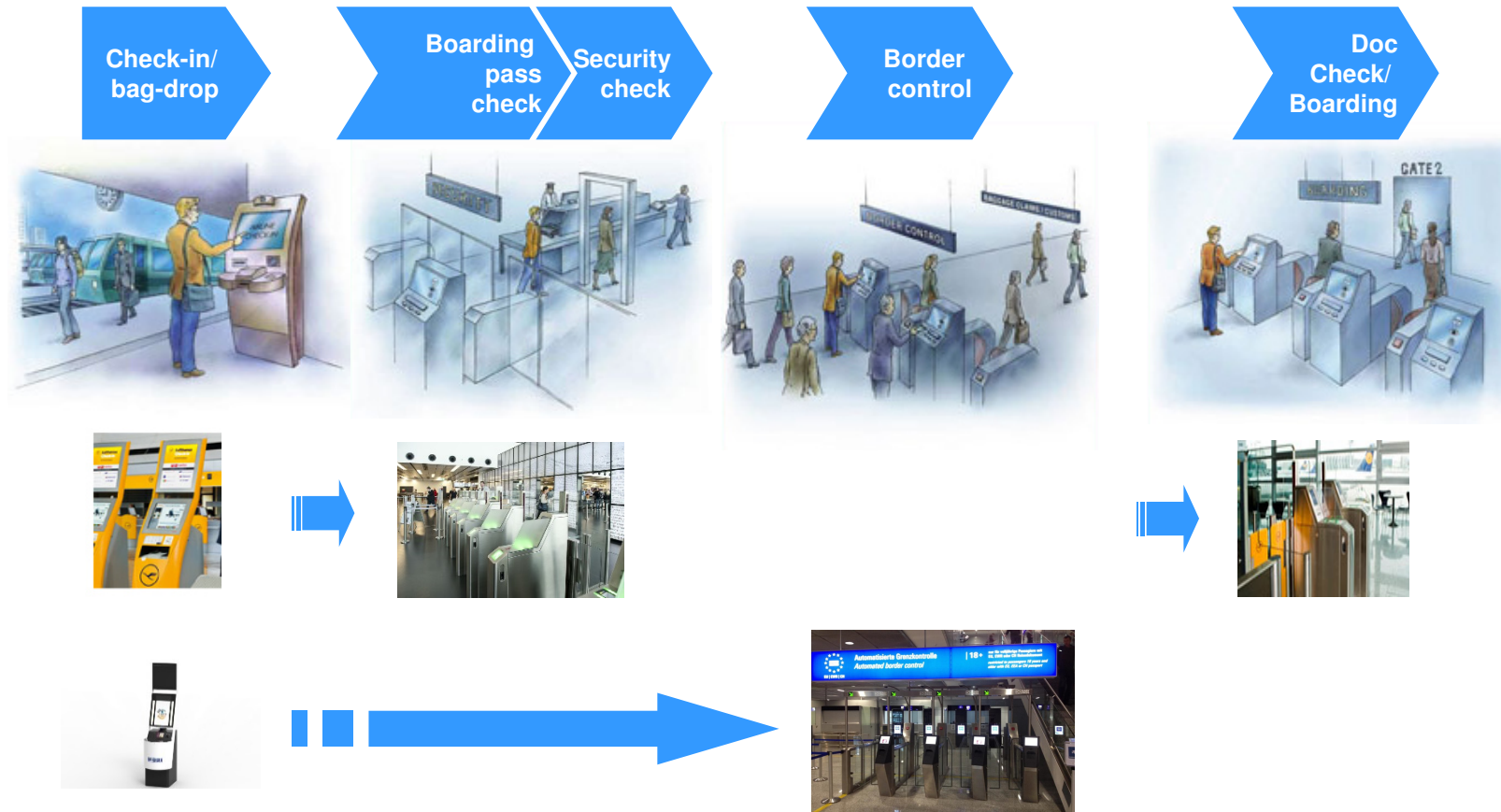


Land Border in Moravita



## Enabling the vision

*All components are already in operation – Need to integrate systems and exchange information*





## ***Sharing of information***

*What kind of information is needed for the paperless process?*

- Name of passenger → Check-in kiosk (airlines)
- Flight number → Check-in kiosk (airlines)
- Face biometrics → Passport scanner (authorities)
- Passport number → Passport scanner (authorities)



**... Thank you for your attention!**

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