

automated border control

what about standards?



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what about standards?

clarity

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what about standards?

clarity

of specification

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what about standards?

clarity

of specification  
of expectation

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what about standards?

clarity

of specification

of expectation

of accessibility / usability

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what about standards?

clarity

of specification

of expectation

of accessibility / usability

- accuracy and speed of biometric capture and processing, data capture from eMRTDs
- performance and safety of sensor mechanisms – eg infra red, mmw
- mechanical and electrical performance and safety of barrier mechanisms
- Interoperability with other systems – eg automated access and boarding

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what about standards?

clarity

of specification

of expectation

of accessibility / usability

- transaction time *versus* accuracy
- mean time between failure, sensor reliability, software and mechanical components
- safety of devices for customers

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what about standards?



clarity

of specification

of expectation

of accessibility / usability

- standardised, consistent experience
- usability and signage, human-computer interface
- safety, privacy, accessibility for those with challenges

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what about standards?

Standards and recommended  
procedures (SaRPs)

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what about standards?

## Standards and recommended procedures

- technical / engineering

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## Standards and recommended procedures

- technical / engineering
- biometrics

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## Standards and recommended procedures

- technical / engineering
- biometrics
- travel documents

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what about standards?

## Standards and recommended procedures

- technical / engineering
- biometrics
- travel documents
- software

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what about standards?

## Standards and recommended procedures

- technical / engineering
- biometrics
- travel documents
- software
- interface

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what about standards?

Standards and recommended  
procedures

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who makes standards?



# Standards and recommended procedures

- technical / engineering
- ISO/IEC, CEN, NIST etc
- SITA, ARINC
- Integrators

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who makes standards?

# Standards and recommended procedures

- biometrics
  - ISO/IEC, CEN, NIST, FBI, DoD etc
  - Academics, suppliers, governments, trade associations

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who makes standards?

# Standards and recommended procedures

- travel documents
- ISO, ICAO, governments, suppliers, security printers
- ICAO-9303 e-Machine Readable Travel Documents
  - first, second and 'n' generation passports and ID cards
  - RFID data, SAC

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who makes standards?

# Standards and recommended procedures

- software
  - ISO/IEC, CEN, DIN etc
  - Microsoft
  - Linux
  - Apple
  - Android...

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who makes standards?

# Standards and recommended procedures

- interface
- ISO/IEC, Frontex, ICAO, IATA, suppliers, governments, port operators
- Signage, instructions to passengers, look-and-feel, common procedures, one or two gates, enrolled or walk-up?

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who makes standards?

Key areas for standards and  
recommended practices

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what needs to be done?

## Key areas for standards and recommended practices

- technical / engineering
  - barriers, turnstiles, gates, smart corridors, emergency, electrical/mechanical safety
  - height and multiple-body detection, tailgating detection, left-baggage detection
  - illumination

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what needs to be done?

## Key areas for standards and recommended practices

- biometrics
  - biometric accuracy and performance, anti-spoofing capability
  - false accept, false reject, failure to capture
  - database size, matching performance
  - interoperability
  - upgrade / migration capability
  - biometric vocabulary

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what needs to be done?



## Key areas for standards and recommended practices

- travel documents
  - readability of MRZ, size and shape of document, security features in laminate etc
  - RFID performance and compatibility
  - RFID data consistency and structure, photo quality
  - encryption and electronic certificates
  - data security, SAC

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what needs to be done?

## Key areas for standards and recommended practices

- software
  - quality, error rate, construction
  - security against penetration
  - usability / interoperability

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what needs to be done?

## Key areas for standards and recommended practices

- interface
  - signage and wayfinding, icons
  - accessibility for special needs passengers
  - usability, human-computer interface
  - fall-back and contingency
  - rejected passengers
  - enrolment facilities and procedures
  - eligibility

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what needs to be done?

## Plan of work

- establish a lowest level table of existing standards and recommended practices
- gap analysis with a list of desired standardisation
- what's missing
- worth doing?
- whose responsibility?
- who's paying?

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what needs to be done?

## mandate M487 project objectives

- “Phase 2 — based on EC reaction to the output of Phase 1, to provide proposed standardisation work programmes with roadmaps related to the selected sectors.”
- “**Border security** – common technical and interoperability standards for automated border control systems, as well as standards for biometric identifiers..”

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where we need to be

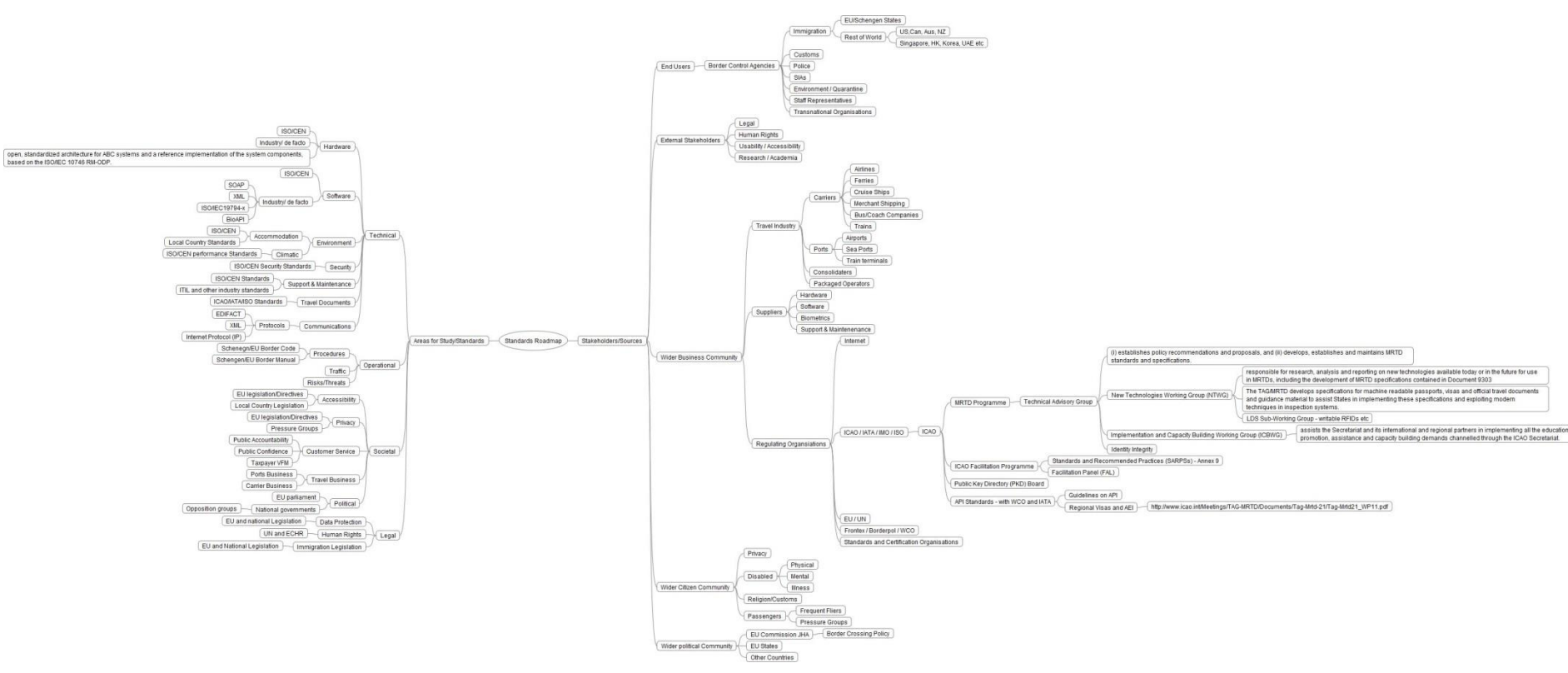
## mandate M487 project objectives

- 6 month project
- delivers a plan for standards creation / updating for ABC
- managed by Netherlands Standards Agency NEN
- aims to assist EU business & industrial community

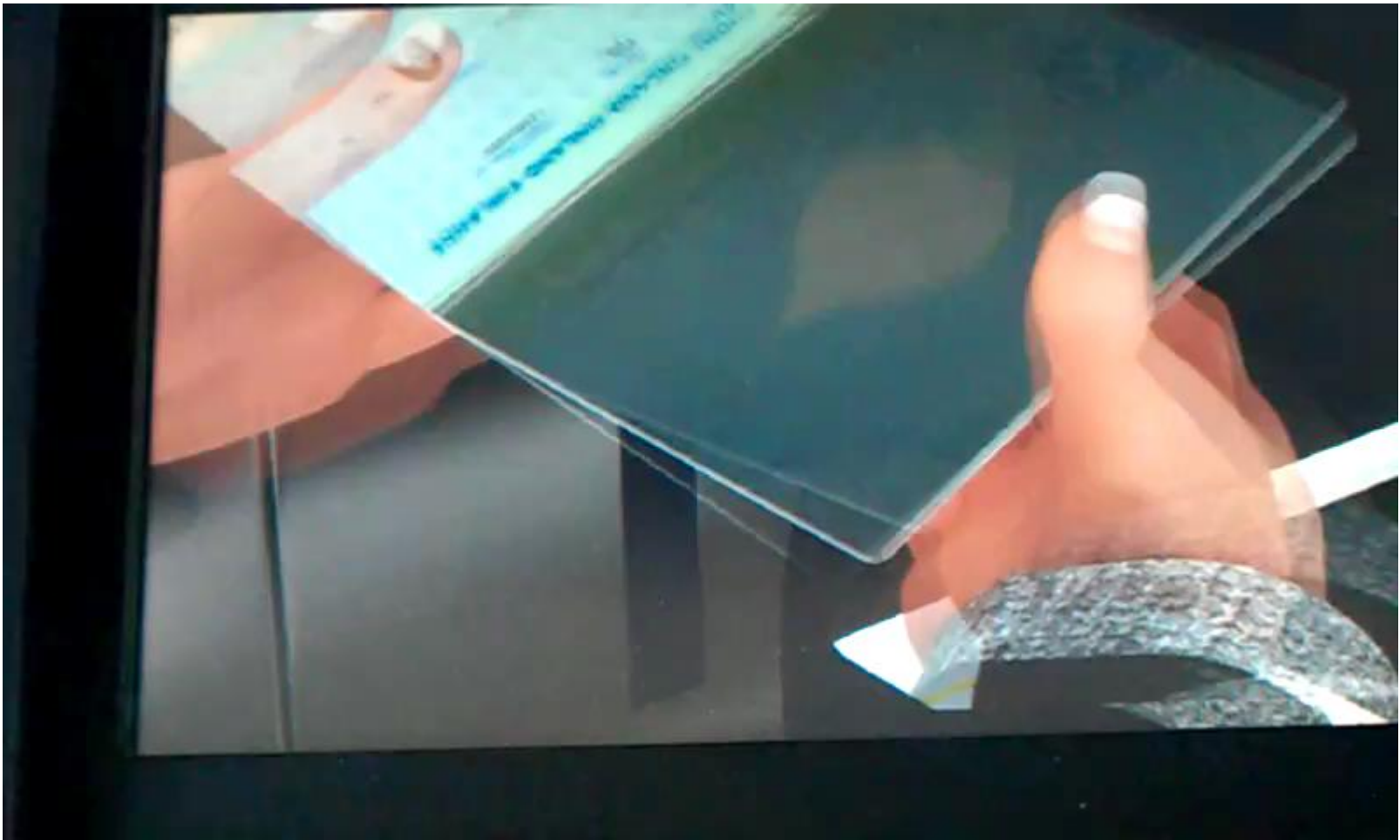
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where we need to be

open, standardized architecture for ABC systems and a reference implementation of the system components, based on the ISO/IEC 15746 RM-OCF.



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 where we need to be



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where we need to be



## FastPass project objectives

- 4 year project
- coordinated by the Austrian Institute of Technology (AIT)
- prototypes for Vienna Airport, Polish-Ukrainian border, Mykonos
- 27 partners – suppliers, academic, users
- urgent need for stakeholders / sources of information & experience

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where we need to be

## FastPass project objectives

“modular, easy to integrate, optimized, next generation automatic border control solution ... secure, fast and comfortable border crossing ... European and frequent 3rd country travellers.

new technologies and processes ... harmonized concepts ...  
all types of border crossing points and all official identity e-Documents”

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where we need to be

## Both projects

- need suggestions, advice, proposals
- from suppliers, border agencies, passenger representatives, carriers, port operators
- can be anonymous, sanitised

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where we need to be

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just the beginning...

# Discussion

What will prevent ABC working  
*EVERYWHERE*  
in the EU?

What  
*STANDARDS*  
are missing that  
would make agreement between  
suppliers and agencies easier?

