ABC technologies – privacy and data protection challenges in the context of the **FastPass** project

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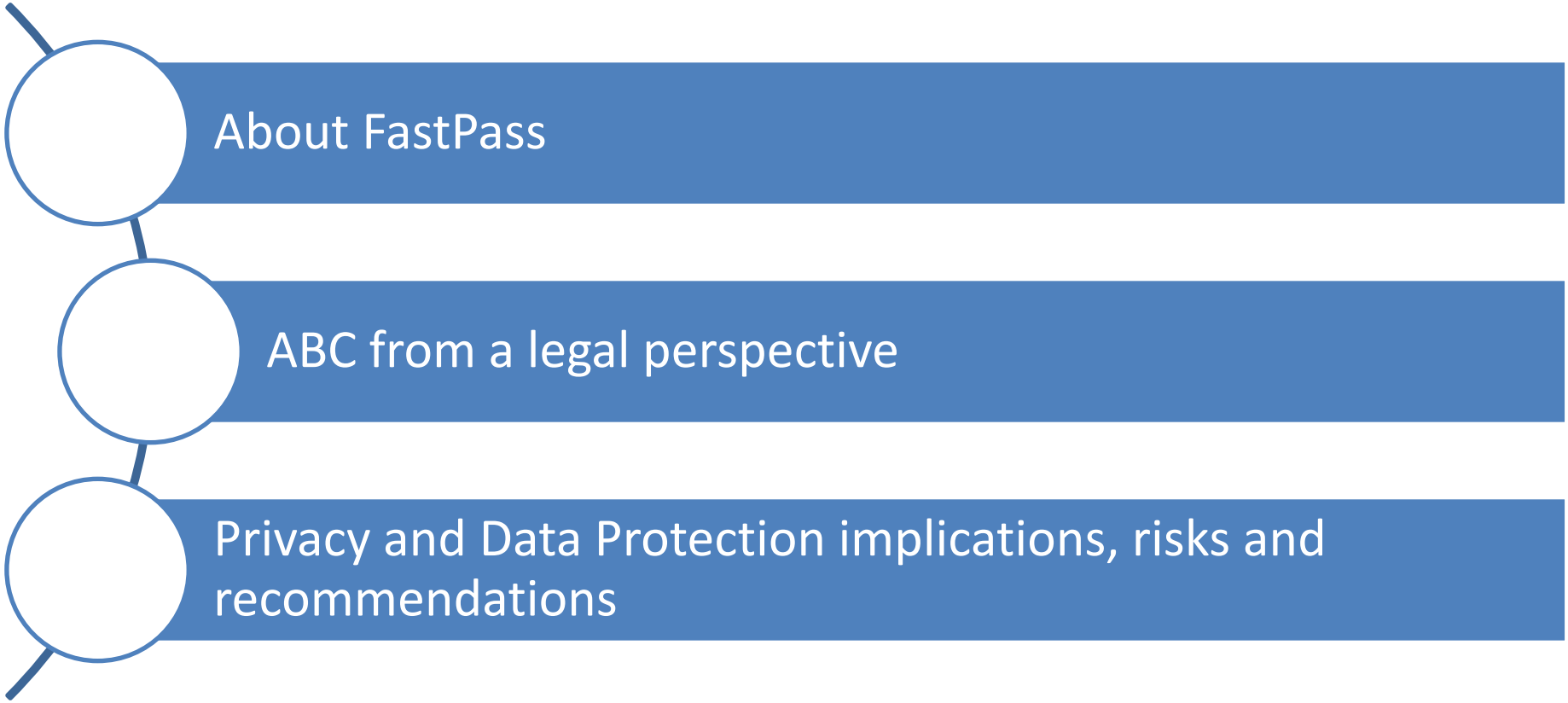
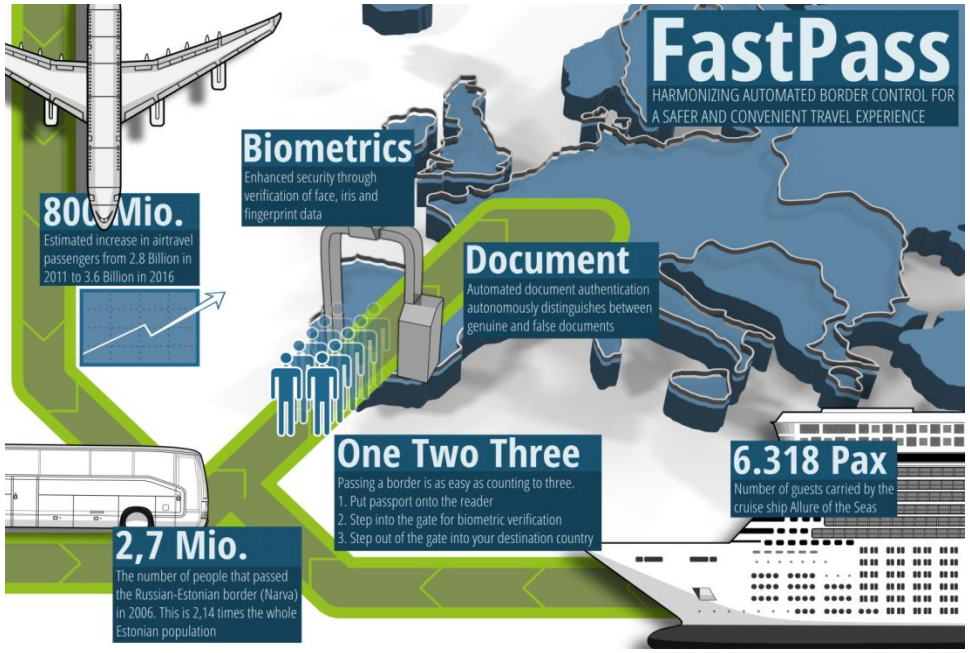
Structure


About FastPass
ABC from a legal perspective
Privacy and Data Protection implications, risks and recommendations

Motivation

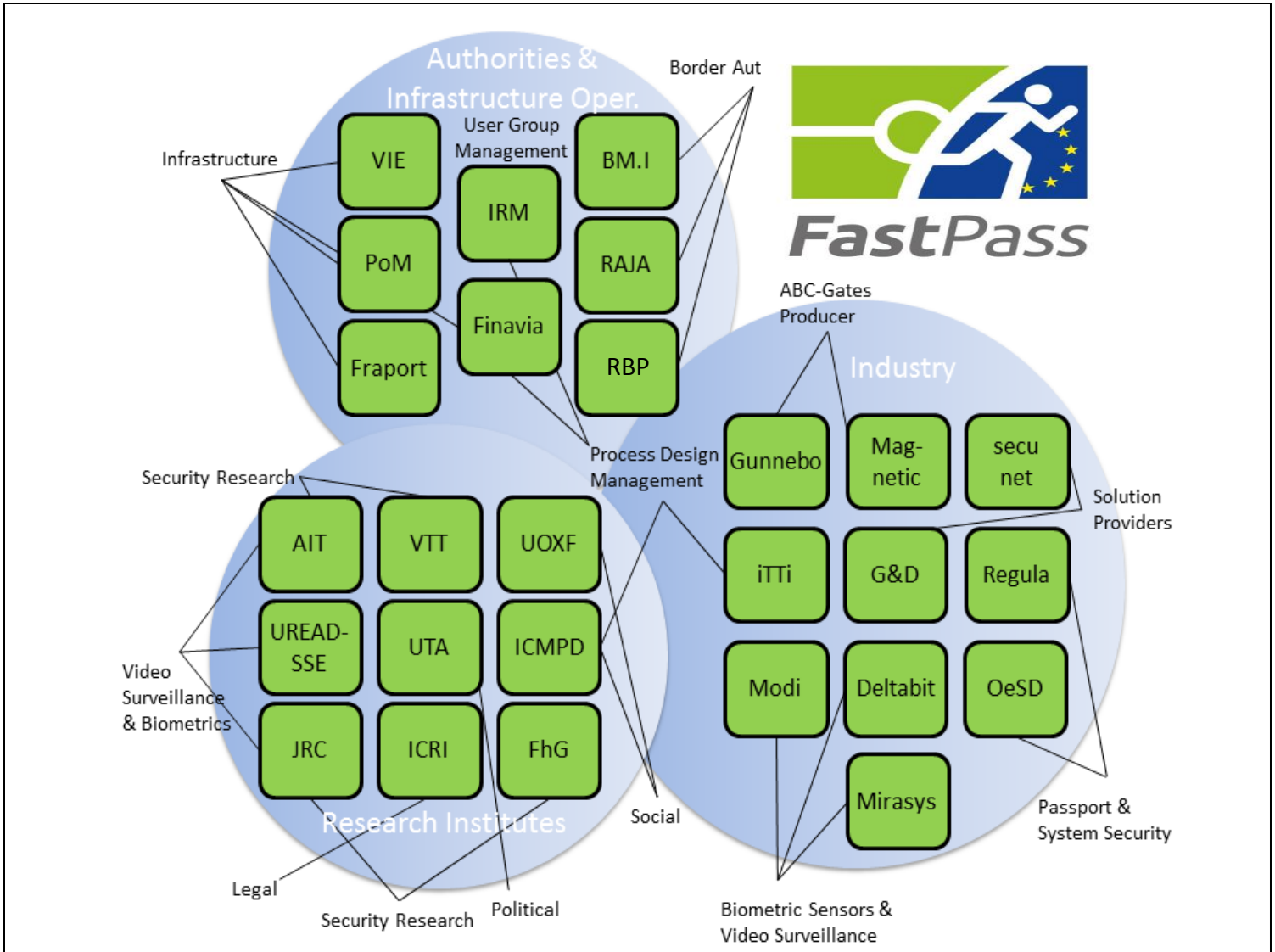
Challenges :

- Passenger flow
- Requirements on the border control process
- System risk assessment
- Harmonization
- Variety in usage



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.

FastPass Consortium



FastPass

FastPass Objectives

Integration with EES and RTP

- Extend usability to TCN
- Evaluate the value of RTP for EU citizens

Harmonized ABC Usability

- Usage of passport scanners
- Usage of kiosks
- Instaneous „Go Through“
- Usage of fingerprint scanners

Supporting Innovative Border Crossing Concepts

- Airborder: Comparison of classical method with kiosk biometric token
- Landborder: Process with/without registration
- Cruise ship: Pre-collection of data, including biometrics

Architecture Based on Innovative Technologies

- Reference Architecture with open interfaces
- Advanced Technology Modules (Passport, Identifcation, Video Surveillance)
- Security evaluation

European cooperation

- Liason with commission, EP, Frontex, eu-LISA, FRA
- Liason with other European Research Projects
- Liason with industry
- Liason with BG authorities

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FastPass – the system/technology, that

- **…is secure**
  - Resistent to latest attacks on document scanner, to biometric spoofing
  - Risk Assessment, Security Assessed by dedicated methodology
- **…you like**
  - UI developed with extensive feedback from different European border guards
  - Process and procedures developed with extensive evaluation from traveller groups
  - Respects privacy and data protection (Data protection impact assessment – DPIA)
- **…is harmonized – and shows new processes and scenarios**
  - ONE reference architecture serving many processes
  - First European solution for cars at land border with ABC
  - First solution for cruise ships
  - Real comparison of different approaches on an airborder crossing point

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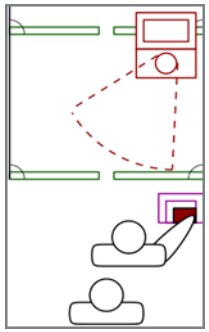
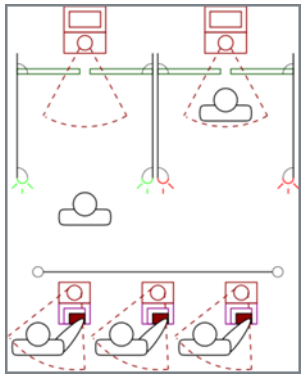
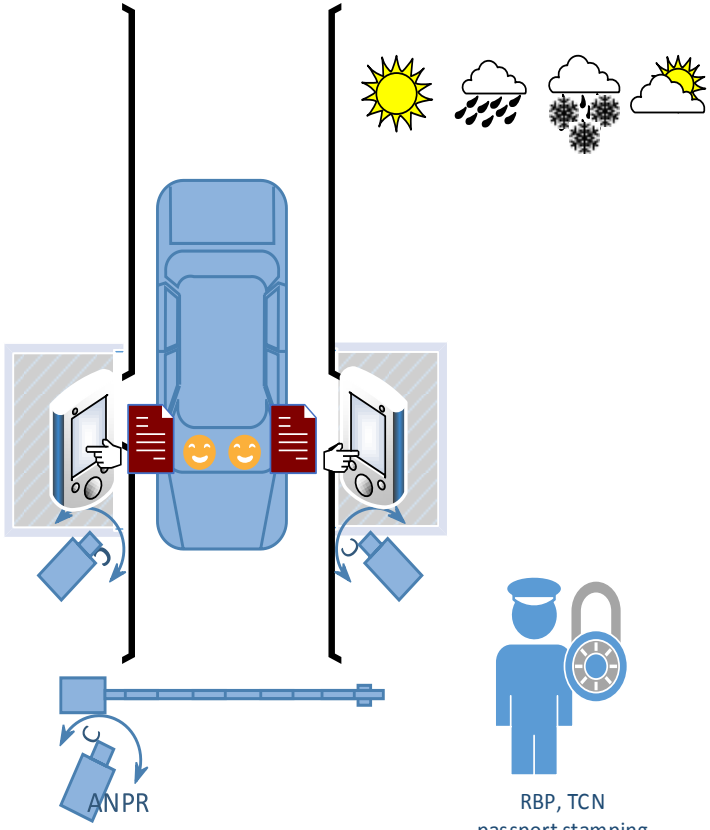
…is harmonized – and shows new processes and scenarios







RBP, TCN
passport stamping

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Automated Border Control

"ABC means a fully automated system which authenticates the travel document, establishes that the traveler is the rightful holder of the document, queries border control records and on this basis automatically verifies the conditions governing entry laid down in Article 5(1)."

(Smart Borders Package, Proposed amendment No. 562/2006 (COM (2013) 96 final))

"An automated system which authenticates the e-MRTD, establishes that the passenger is the rightful holder of the document, queries border control records and automatically determines eligibility for border crossing according to pre-defined rules."

(FRONTEX, Best Practice Guidelines for Automated Border Control (ABC) Systems, 31/08/2012)

Automated Border Control

- ✓ No formal legal definition adopted yet, despite growing number of national ABC programmes;
- ✓ Legal uncertainty:

The Schengen Borders Code regulates manual border control. ABC not pure automation of the processes. Open questions: purposes and scope of ABC, functionalities, *quid* pre-registrations and pre-border checks?

Smart Borders Package Proposal suggests ABC for Third Country Nationals (TCNs) Registered Travelers. Uncertainties remain.

Legal Framework

Border Control

Schengen *acquis*

=> Schengen Borders Code: different passengers (EU/EEA/CH vs TCNs) and borders (air, land, sea);

=> SIS II; VIS; e-Passport Regulation; Smart Borders Package: EES and RTP;

=> case law;

=> national specifications;

=> soft law (e.g. Schengen Handbook).

Fundamental Rights

=> Privacy – Art. 8 ECHR; Art. 7 CFREU;

=> Data Protection – Dir. 95/46/EC; Art. 8 CFREU;

=> Non-discrimination (e.g. disabled persons; trusted vs. non-trusted travelers);

=> Vulnerable groups (e.g. human trafficking; minors and children; asylum seekers; refugees).

	Persons enjoying URFM	TCNs
Minimum check:	Establishment of identity: Travel document: validity, authenticity, lost/stolen/misappropriated/invalidated	
National **+** **European databases (SIS II, …)**	Non-systematic check → genuine, present and sufficiently serious threat to the internal security, public policy, international relations of MSs or threat to the public health in national and European databases.	Thorough check → entry and exit, verification: -Visa or residence permit (where applicable) + entry and exit stamps: -Purpose of entry; -Point of departure and destination; -Means of subsistence; -Alerts for refusal of entry (SIS II Reg.); -Check in databases on persons; -Stamping obligation; -Additional docs, cfr. Annex I SBC. On exit (mandatory): -Valid travel document; -No threat to public policy, internal security, etc.; -Optional Valid visa or residence permit; duration of stay not exceeded; SIS II on persons and objects. *Smart Borders Package would allow certain TCNs to use ABC if they are RTs and if EES is adopted.*

Differences: Manual vs automated check: EU/EEA/CH

Manual Border Control

Identity verification:

Visual comparison of passenger with photo on passport;

Non-systematic check in databases on persons: discretion of border guard.

Automated Border Control

Identity verification:

Automated verification of live **biometrics** with passport chip data or against databases;

Algorithm for non-systematic check in databases on persons? Fair?

Biometrics: Data Protection and Privacy Concerns

Growing number of databases in AFSJ, e.g. SBP to add two more.

Storage = interference, S& Marper, par.67

Articles 8 ECHR and CFREU and Directive 95/46/EC

Centralized or decentralized storage: RTP/interaction with e-Gate

Biometrics: Still undefined.

Contains sensitive/unique info (S & Marper). From facial recognition to fingerprints (see SBP).

Processing of personal data = interference with data protection. Data Retention Judgment, C-293/12 and C-594/12, par. 36

Biometrics, privacy and data protection principles

Principle 1: Fair and lawful - provided for by law and meets proportionality criterion. What are the purposes of ABC, scope, functionalities, safeguards to citizens and their data? Legal basis?

"… lay down clear and precise rules governing the extent of the interference with the fundamental rights enshrined in Articles 7 and 8 of the Charter."

(Par. 65, Data Retention Directive Judgment, C-293/12 and C-594/12)

"…rules which are specific and adapted to … (ii) the sensitive nature of the data and (iii) the risk of unlawful access to the data …"

(Par. 66, Data Retention Directive Judgment, C-293/12 and C-594/12)

Biometrics, privacy and data protection principles

Principle 2: Purpose limitation – purpose specification and compatible use [genuinely meet objectives of general interest recognised by the Union (art. 52 (1) CFREU; *Schwarz*, C-291/12, par. 34]:

- ***Purpose of ABC***: purposes clearly articulated?

  Smart Borders Package: Are purposes clear? Quid EES and law-enforcement access?

- ***Purposes of biometric processing***: identity verification. However, databases, e.g. SIS II, contain biometrics (face and fingerprints). If technically searches with biometrics possible, is that legal?

Biometrics and Purpose limitation

Compatible (re) – use of biometrics on passport chip of EU citizens?

General interest: *"… the first to prevent the falsification of passports and the second, to prevent fraudulent use thereof …"*

(Par. 36, Schwarz, C – 291/12)

*"In any case, checking whether fingerprints match is **not done systematically** but depending on contingencies, for example, if the check on the basis of the facial image alone and of the data in the passport **does not eliminate all doubt as to the authenticity of the passport and/or the identity of the holder."***

(Par. 57, AG Mengozzi opinion in Schwarz, C – 291/12)

Biometrics and Principles

Principle 3: Data Storage

"However, it should be borne in mind that Article 1(2) of Regulation No 2252/2004 does not provide for the storage of fingerprints ***except within the passport itself*** *…"*

(Par. 60, Schwarz judgment, C – 291/12)

⇒ Central storage can still be achieved, e.g. RTP. Is it necessary though?

⇒ E-Passport Regulation does not require Member States to guarantee that biometric data collected and stored according to the Regulation will not be processed for other purposes than issuing the document. (*C-446/12 to C-449/12. 16 April 2015*)

Biometrics and Principles

Principle 4: Data accuracy

"… that the method [of fingerprint matching] is not wholly reliable is not decisive."

(Schwarz, C – 291/12, par. 43)

⇒ Consequences of False Acceptance and False Rejection Rates – denial of entry?

⇒ Consequences of false hits when biometrics cross-matched with law-enforcement databases (EDPS Opinion on Smart Borders Package, July 2013)

Biometrics and Principles

Principle 5: Data minimization: Processing the minimum data necessary

=> Applies to number of biometric types (e.g. face vs face + fingerprints); number of biometric identifiers (1 fingerprint vs more); richness of details (raw biometrics vs templates) used by ABC systems.

E.g. Commission RTP proposal (Smart Borders Package) – 4 fingerprints. However, 1 fingerprint enough for verification purposes (Technical Study on the Smart Borders Package, October 2014, p. 14)

=> Applies also to alphanumeric data enrolled in databases.

E.g. Proposed EES – contains more categories of data than necessary (e.g. issue date of travel document) (Technical Study on the Smart Borders Package, October 2014, p. 203-204).

Data Protection Risks?

(Central) Storage

- (Biometric) data not deleted after crossing the border and creation of some RTP databases (also in the RTP in Smart Borders Package).

Interoperability

- Between databases created in the context of ABC and other (e.g. police) databases. Synergies between proposed RTP and EES and SIS II, VIS, etc.
- Biometrics become universal (interconnection) key between nationals and EU databases.

Law-enforcement access

- EURODAC, EES: innocent persons under general suspicion. Function creep?
- Consequences of mismatches? Discrimination (selected groups treated as suspect) and surveillance.

"It therefore applies even to persons for whom there is no evidence capable of suggesting that their conduct might have a link, even an indirect or remote one, with serious crime." (*Data Retention Directive, C-293/12 and C-594/12, par.58)*

ABC: Right Balance

Principles 6 and 7:

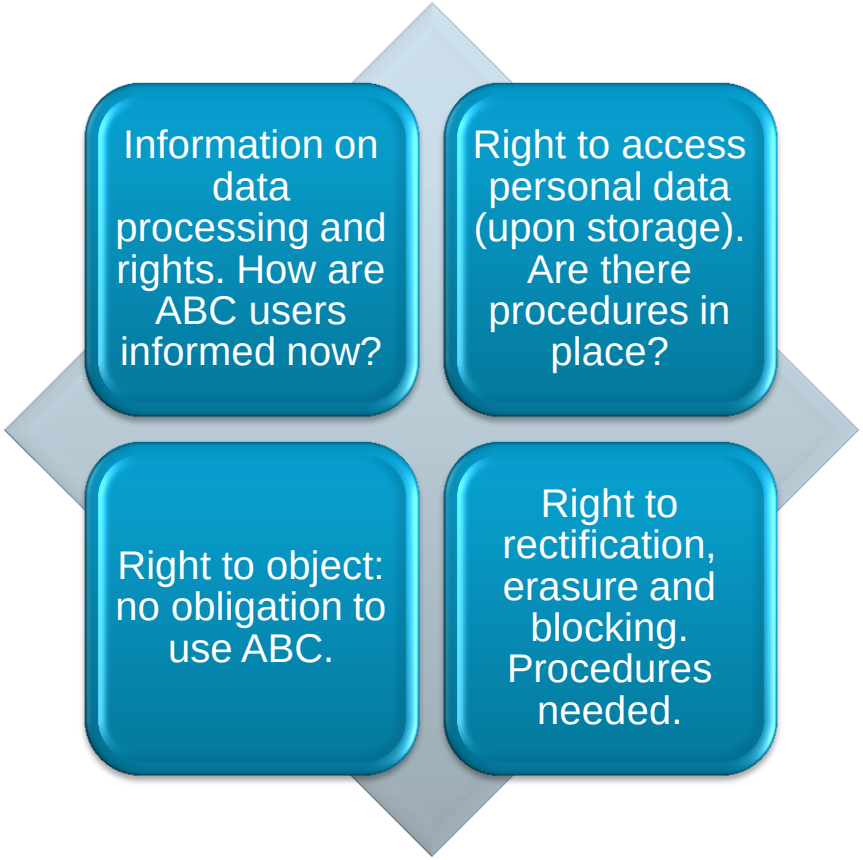
Necessity and Proportionality: "Indeed, Article 52(1) of the Charter allows for limitations …. in accordance with the principle of proportionality [and which] are necessary …" (Schwarz, C – 291/12, par. 34).

Privacy and data protection:

"When the introduction of the system, in view of all the instruments already available, does not provide additional value, the concept entails unnecessary processing of data." *(CBP, 27 May 2004, z2003 – 1529)*

ABC: Border Control Purposes, clearly articulated and responding to real needs. Evidence of effectiveness.

ABC and data protection rights of users: harmonized minimum level needed



Recommendations for ABC

When ABC necessity and effectiveness demonstrated: Legal basis with safeguards for passengers: regulate collection and usage of biometric data on the basis of a PIA. Clearly regulate the process, e.g. when does it start and end, handling of mismatches, or access by law-enforcement authorities, safeguards to individuals.

Technical guarantees (e.g. through Privacy by Design) for non-storage of (biometric) data , unless based on a law. Security measures and Privacy by Design, e.g. encryption if data still stored.

Transparency to passengers: 1. Details about the processing of their data; 2. How they can exercise their rights. 3. Who to turn to in case of abuse.

ABC is not a mere technicality:

Modifies the nature of identity verification at borders and changes the process.	While the technology can bring improvements, the accompanying risks have to be addressed. E.g., the automated processing of personal data brings new threats (e.g. re-use of biometrics for law-enforcement searches).	Necessity needs to be demonstrated. Legal basis which regulates the process, delimits the lawful use of the technology, ensures against arbitrariness and gives transparency.