

First steps of the FastPass' demo site in Vienna



The time has come! The first FastPass' demo site will go live in spring 2015 at the Vienna Airport. Located at the Schengen zone entrance, the installation will test different system configurations. Starting with a classical egate, several configurations and kiosk solutions will be compared. Stepwise an enhancement of transit speed and convenience will be achieved by reduced passport read-out time and instantaneous face matching.

At Vienna, the new system will be introduced to the local border guards by the FastPass Consortium in order to make use of the system's full potential. The tests will be conducted with voluntary passengers who will also, after having passed through the egate, be invited to answer a short survey, in order to determine whether and how the system can be improved. Further developments will be made on this basis during the course of the demonstration, planned to last until December 2016.

With the initiation of the Vienna demo site, a new phase for FastPass starts. The work of the Consortium will be tested by end-users and exposed to "real -life" conditions. This will allow to develop a modern, highly -reliable and easy-to-use solution, adaptable to the needs of both border guards and travelers.

FastPass took part in the Computers, Privacy & Data Protection Conference

This year the [Computers, Privacy & Data Protection Conference](#) (CPDP2015) focused on the theme of 'Data protection on the move'. Our colleagues from the ABC4EU project organised a panel to assess the societal impact of automated border control gates and invited two FastPass members to give a short presentation and contribute to the discussion.

FastPass researcher Dr Anne-Marie Oostveen (University of Oxford) discussed acceptance of Automated Border Control systems by travellers. She pointed out that reports, interviews with border guards / border management, and passenger surveys show that ABCs are underused: many people have never heard of e-gates or don't know that they have an e-passport. Often they can't find the egates when they are at an airport or they tend to choose the familiar over the new (Oostveen, 2014, [Non-Use of Automated Border Control Systems: Identifying Reasons and Solutions](#)). Another cause for low ABC uptake is that egates are still under development. There are problems related to the usability of systems and to the lack of harmonisation, which need to be solved. Although passengers regularly experience service failure due to either technical or human error, they are overall positive about (the idea of) egates: "When I'm getting off an eight hour flight, I don't want to chat with someone about why I am coming here, what is in my bag. I just want to get to where I am going, you know?" However, when discussing future scenarios for border control, passengers become worried about intrusive technologies. If it becomes possible to 'read' biometrics from a distance (i.e. when you walk through a corridor with sensors and scanners), users are afraid that the normalisation of these systems at airports might lead to function creep with similar surveillance systems being used in other (less fitting) contexts (e.g. supermarket, high street).

FastPass External Expert Advisory Board member Dr Irma van der Ploeg (University of Maastricht) focused her presentation on biometrics and human bodily differences. She explained that biometrics verification has in-built norms regarding human bodies: they assume unicity, similarity/universality, stability, and availability of human body characteristics. However, human bodies differ greatly and this means that biometrics for authentication will not be equally accurate for all passengers. Even small error rates (FRR, FAR) will produce high absolute numbers of error, likely to be unevenly distributed over the travelling population. Therefore, large-scale rollout of biometric ABC gates requires many safeguards, checks and balances, and continuous monitoring and evaluation research.

Building a secure ABC system

Building, deploying and operating an ABC system in a secure manner is not an easy task. Earlier research on single components of existing ABC systems has identified weaknesses that could be used to sidestep the passport control process. When evaluating a passport reader, the Austrian Institute of Technology was able to trick the reader into believing that the real passport was present by using a regular smartphone. (See "[Optical Security Document](#)")

[Simulator for Black-Box testing of ABC Systems](#)" by Michael Gschwandtner, Svorad Stolic and Franz Daubner).

Hardening the system against illegal entry is only one reason why security is of special importance. Many more attack vectors need to be considered. One example is the processing of personally identifiable traveler information by the gate. This data needs to be kept confidential from third parties in order to protect the privacy of the traveler.

However, there are also less obvious security concerns. The gate could be exploited in order to evaluate the quality of faked passports without the risk of being identified in the process.

In order to get a complete picture of all risks involved, the FastPass risk advisory board (RAB) has been established. The board consists of IT-Security and privacy experts from the FastPass Consortium. As a base for the risk treatment, the well-known ISO27000 series have been applied. Additionally over a 100 ABC specific risks have been identified, grouped and rated on the basis of their exploitability and their damage potential.

Based on those ratings a risk acceptance plan has been created. For every single risk the plan defines up to which level the risk has to be eliminated and from which level on it can be tolerated. As an example, even without a valid passport the traveler will always be able to open the gate manually in the case of an emergency (e.g. a fire). The risk acceptance plan defines that this action must never happen unattended.

In the coming months the risk treatment plan will be developed, where concrete measurements will be listed in order to mitigate the remaining risks. This work will help to increase the security of future ABC systems.

Automated Border Control: Privacy, Data Protection and the Schengen *acquis*

by Diana Dimitrova, legal researcher at the Interdisciplinary Center for Law and ICT, University of Leuven. Member of the FastPass Consortium, she focuses her work on on topics of privacy and data protection in the Area of Freedom, Security and Justice (AFSJ), especially in the context of border control and the growing usage of biometrics.



Automated Border Control (ABC) in the EU must operate within the limits of the legal framework. As ABC is *per se* designed to process personal data, including biometrics, the framework established in FastPass consists mainly of (1) the EU privacy and data protection framework, (2) the Schengen *acquis* on border control [\[1\]](#) (e.g. the Schengen Borders Code, SIS II, e-Passport regulation) and applicable national specifications (3) and other rights such as equal treatment.

It is a challenge to apply such a broad and multifaceted framework to ABC. This is so especially because the existing Schengen provisions are tailored to manual checks and ABC is not merely an automation of the manual processes. The legal research is thus focused on:

- Deriving legal requirements and guiding the partners in applying them to the design of the FastPass ABC solution. The purpose is to ensure that FastPass respects the procedural requirements of the Schengen *acquis* and at the same time respects the privacy and data protection provisions.
- Conducting research on the impact of EU legal/political developments, relevant to ABC, on the fundamental rights of individuals. Some examples are the Smart Borders Package, SIS II, etc.
- Providing the project partners with advice on how to carry out their research, e.g. validation demonstrations, in a legally compliant way.

As a result, a comprehensive list of legal requirements for ABC was put together. These legal requirements have been further elaborated upon and applied in each individual scenario for the final demonstrations in cooperation with the local authorities. As to the research on the implications of ABCs to passengers, one of the main findings so far is that ABC changes the nature of identity verification (by basing it on biometrics) and certain border control processes. This, in turn, poses novel risks to the fundamental rights of the passengers who use them, but also of those who cannot or may not use them.

To avoid negative impacts, decision-makers should articulate clearly what the purpose of ABC is and demonstrate the necessity and proportionality of the chosen technology. The latter should fully respect the fundamental rights of passengers (e.g. privacy, equal treatment) and should not pose higher risks, e.g. of trafficking in human beings.

[1] For current and acceding Member States of the Schengen area.

Meet the Consortium!



The Consortium will be represented at the [Smarter Borders](#) event, on 3rd-4th March in London, with an intervention from Mrs Arabelle Bernecker.

The FastPass Consortium will be present at the [Passenger Terminal Expo](#) (10th-12th March, Versailles, France) with a stand and a presentation from the Coordinator Markus Clabian.



Our archived newsletters are available [here](#) !



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