

PROJECT NEWSLETTER 16 (02/2017)

Cooperation with BODEGA

The ABC systems (eGates, kiosks, the mobile system and the enrolment station) we are piloting are designed to follow the Smart Border Package and Schengen Border Code processes. The results of the piloting will be very useful to share in this event in order for us to receive qualified feedback, and discuss how to improve on the processes, user experience, and overall facilitation. BODEGA on the other hand, approaches border control from the point of view of human factors. A number of field studies were conducted to gather information regarding current practices, known problems, bottlenecks, etc. The cooperation with BODEGA will enrich ABC4EU beyond its pilots by adding contextualized data from all border types (Air, Rail, Land and Sea) and different EU member states.

Recent pilots in Madrid, Lisbon and Algeciras

According to Atos, one of our partners responsible for building the technology, the main advantage of the ABC4EU pilot is to fully know how a Border Control Point works by living the experience next to the border guards (BG) and the travellers. The lessons learned when a new technology used by the end-user in their working environment is really powerful, and also seeing how the travellers interact with the process and technology, help pave the way for providing the optimal solution in the future. Using different locations helped to receive feedback from different BGs and multicultural TCNs, diverse situations and scenarios of travel. Finally, it was very positive that there was such a successful reception to the facilitation of the ABC4EU systems offered by both Border Guards and travellers alike.

Atos described that during the pilots an important metric captured was the time it takes for the border guards to carry out manual thorough checks, which consisted of over a minute and a half. Therefore, travellers approved in the National Facilitation Programme (NFP) registered traveller service will save this time as they will no longer be subjected to thorough checks and all that this entails, such as providing documented evidence of hotel bookings and so on. Indeed if a MS no longer insists on stamping passports on entry and exit, with the introduction of the Entry-Exit System (EES), then the addition of the National Facilitation Programme (NFP) can facilitate automatic processing of third country nationals (TCN) as they cross the border.

Eticas conducts research during the pilots

- Eticas has established a methodological design aimed at obtaining information about the acceptability of the tested e-Gates and their performance from an ethical and a social standpoint. This includes elements such as: the adaptability of the ABC system to handicapped individuals, to vulnerable social groups and to particular cultural collectives; the velocity of the ABC system; as well as the accuracy of the ABC system with regard to its operative aims. On a second register, it also comprises the following concepts: Reliability, Desirability, Comfortability/ Intelligibility and Acceptability. With this aim in mind, a survey of 20 questions was developed on the basis of 32 indicators that were identified during the research process, also including questions provided by consortia partners. This questionnaire has two sections: one section related to the experience/performance -where the different functionalities of the system are taken into account- and another section about desirability/acceptability, where the perception of users about the need and efficiency of the system is evaluated. A non-participant

observation guide was also elaborated in order to triangulate and supplement the above information.

- This data collection instruments were tested in the pre-pilots of Lisbon (2016/12/09) and Madrid (2016/12/02), applying a total of 25 questionnaires and conducting non-participant observations at both airports. The reviewed version of the survey, consisting in 14 questions, has been applied at the Lisbon Airport where almost 30 surveys were conducted in 3 days, and more recently at the seaport of Algeciras, where 11 surveys were added to this group. This fieldwork, which will be completed during the pilot to be conducted this year, has already provided very relevant information concerning the level of awareness of passengers about how their data is managed in this context, as well as issues regarding functionality, cultural and contextual factors, and the interrelation of these factors with the acceptance and consideration of the applied technologies.

ABC4EU results presented in upcoming international conferences

URJC team presenting dissemination about ABC4EU project's results in two already accepted papers in international conferences: first one, on 12th International Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications, 27 February - 1 March, 2017 and the second coming up this June, IbPRIA 2017: 8th Iberian Conference on Pattern Recognition and Image Analysis, June 20-23, 2017.

URJC team published several works last semester, including the remarkable: Jose Sanchez del Rio, Daniela Moctezuma, Cristina Conde, Isaac Martin de Diego, Enrique Cabello, "Automated border control e-gates and facial recognition systems", *Computers & Security*, Volume 62, September 2016, Elsevier, pages 49-72, ISSN 0167-4048.

Algeciras pilots and Overview from our partner PWC

ABC4EU Algeciras newsletter (2017)

1. Purpose to do the validation

PwC actively collaborated during the Algeciras PoC, attending to CNP and local border officials training session and attending to Algeciras harbour during the piloting days in order to properly assess the same technical and operational systems capacities that were evaluated in the previous pilots, regarding Algeciras scope and limitations established.

On the other hand, PwC has been focused on collect BGs feedback aiming to consolidate the WP2 activities, which are related with EU Border Guard common set of requirements for Strategic and supra-national coordination, taking as reference the piloting experience.

2. Overall experience of validation in Algeciras

The scope of Algeciras pilot and its corresponding limitations have been summarised on the following images:



 **EES:** system where biographic data (from ePassport), fingerprints (FP) and Facial Image (FI) are stored for subsequent checks.

 **NFP (ex-RTP):** Enables frequent traveler TCNs to a particular Member State to join a national registered traveler service to be pre-vetted before travel and to facilitate automatic border crossing, by skipping SBC thorough checks.

 **SIS, ARGOS:** Police DBs.

 **VIS:** visas DB.

3. Some significant results

The pilot results have been collected, analysed and presented (not only by means of explanations, but also by using a set of metrics and graphs). In general terms, the following conclusions can be drawn:

- The majority of people attending the pilot were **EU/EEA/CH (84)** or **visa-holders (71)**. All the VH participants were from Morocco.

- In general, the results obtained show that about **70%** have been **completed processes**. On the remaining 30 percent, **12%** had to proceed to **second line** (border guard decisions during the vetting process) and 18% proceeded to manual booth due to different issues (e.g. technical problems or problems related with visa reading caused by stamp ink, regarding Morocco VISA).

- **The result were really positive concerning EU/EEA/CH travellers**, which the total crossing times obtained have been better than expected and 81 of them successfully complete the border crossing process.

- Several **indications to travellers by border guards** are still necessary to be able to cross the border satisfactorily. Some steps are not very intuitive (e.g. ePassport placement in the eReader and fingerprints capture in the kiosk system).

- In general terms, the **process of crossing** the border is being **quite agile**, especially consider-

ing that most travellers have used the systems for first time.

- The border crossing duration measured, reflects that **times obtained** are **below or similar** to the **border crossing times** shown in previous **European studies** such as EU-LISA smart borders pilot or Commission Staff working paper and impact assessment (2013).



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