

PROJECT NEWSLETTER 11 (9/2016)

From the beginning of the project the partners have done a great number of researches that may not always be visible to the general public. In this newsletter we will present some of the most substantial research that influences the project.

This is part one of two, and presents researches from three of the consortium members.

Eticas

Eticas Research and Consulting's role in the consortium is to establish the inclusion of the ethical, social and legal parameters to the ABC4EU project throughout the project's lifecycle. With the objective of conducting a societal impact assessment, along with taking a Responsible Research and Innovation approach, we have dedicated our research in customising our methodology for the specific purposes and context of the project.

Eticas's ethical, legal and social assessment methodology has been customised and applied to the project's technical requirements and architecture. Therefore Eticas is co-designing the technology and supporting partners for embedding ethical, legal and social criteria into the system. Currently the assessment has been conducted in order to assess the ABC4EU system architecture's compliance to the ethical principles. In addition, to eventually issue new recommendations for the future implementation of the system components as well as advice the execution of the pilots.

The technological partners responsible for the system architecture have been involved in the assessment process, providing information by means of a specific questionnaire sent to them by Eticas. The questionnaire focalises the most relevant information and facilitates the application of the assessment methodology. The answers have been analysed by Eticas in order to identify ethical risks and to establish recommendations for their minimisation in the next phases of the system's implementation. The same assessment principles will be applied for the assessment of the deployment of the technology in the pilots.

Future research work for Eticas in this project includes customisation of the methodology to address the assessment of the system implementation, integration and deployment as well as the assessment of the pilot's execution as part of the pilot evaluation. The next stage of the assessment will be performed on the system implementation using the same methodology as what was applied for the system architecture assessment. It will analyse deeper the main system architecture components, taking into account the new regulations that concern the National Facilitation Programme (NFC) that replaces the current Registered Traveller Programme (RTP). A final assessment of the project, including conclusions, lessons learned and final recommendations, will be issued at the end of the project.

Great effort will always be invested in "translating" ethical, social and legal recommendations into concrete and testable technical specifications. They will be applied in the system's architecture and solutions as well as making sure that they end up being an important part of the design and execution of the technology itself.

Co-designing the technology at all stages of the project and helping technology developers to successfully embed legal, ethical and social recommendations into the architecture design, means that risks are identified at an early stage. Recommendations can be readily issued and solutions are already being worked on in order to minimize the risks and hopefully smoothing the way for future phases.

Cognitec

Low biometric quality of the passport images often poses challenges for the biometric performance according to reports from some of the customers as well as from the discussions on the ABC4EU technical meetings. Therefore Cognitec has concentrated their research activities to make the biometric comparison algorithm more robust against enrolment image quality deficiencies. Based on the results Cognitec has been able to substantially improve the biometric performance for difficult cases which can occur in border control scenarios.

Universidad Ray Juan Carlos (URJC)

URJC research team is currently focusing mainly to improve the presentation attack detection for facial biometrics and multi-biometric fusion at score level for the ABC gates. As an academic partner, the aim of URJC research team is to provide a high quality research and to generate experimental results and recommendations as well as analysing and evaluating different algorithms and solutions to the previously shown purposes.

Events where ABC4EU is represented:

4s/EASTT 2016 Conference, August 31st – September 3rd 2016, Barcelona, Spain. <http://www.sts2016bcn.org/> Gemma Galdon Clavell, Eticas

3rd EAB Research Projects Conference, September 19th – 20th 2016, Darmstadt, Germany. <http://eab.org/events/program/104> Gemma Galdon Clavell, Eticas

World e-ID & CyberSecurity – Digital Identity and Data Protection for Citizens and Business. September 26th – 28th 2016, Marseille France. <http://www.worlde-idandcybersecurity.com/program> Presentation Alberto Crespo, Atos

13th International Conference on Pattern Recognition and Information Processing, October 3rd – 5th 2016, Minsk, Belarus. <http://www.prip.bsu.by/> Keynote speech Vincenzo Piuri, UMIL

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