

# EAB RPC 2018

## EAB Research Projects Conference

Darmstadt, Germany,  
24-25 September 2018

The leading voice for digital ID & biometrics, in Europe

# REPORT OF THE 5TH EAB RESEARCH PROJECT CONFERENCE



For the first year running the EAB and EC-DG-JRC have organized the unique EAB-RPC conference on European Research projects. The conference comes in a time where Identity and Biometric are important topics in Europe's community for example in relation to the recent Facebook privacy scandal, the introduction of GDPR and the challenges around migration, border and refugees.

The conference hosted 17 EU research projects with a total budget of EUR 75,000,000, including BODEGA, LIGHTest, IDENTITY, SWAN, AMBER, iBorderCtrl, SMILE, PROTECT, LETSCROWD, TRESSPASS, CybSPEED, FOLDOUT, FACCESS, Smart-Trust and QuardCard with the aim to present innovations in ID & Biometric related to border, migration, mobile and privacy. The conference also was a platform for the different ID stakeholders from Government, Industry and Academia to network and debate on the various topics.

Mr. Javier Galbally from the European Commission DG-JRC, was chairman of the conference. As part of the Darmstadt Biometric Week 2018, we were happy to receive 190 participants from 26 different countries. The presentations and



**The EAB-RPC Conference chair Dr. Javier Galbally from the European Commission (DG-JRC)**

complementary information from the speakers are available on the EAB-website at: [www.eab.org/events/program/151](http://www.eab.org/events/program/151)

Next year's EAB-RPC will take place on 16 and 17 September 2019 in Darmstadt (Germany), and will be co-located with the IEEE BIOSIG conference. Please read more at: [www.eab.org/events/program/177](http://www.eab.org/events/program/177)

## Keynote by FRONTEX on Border and Migration

The conference started with the keynote of Rasa Karbauskaite (FRONTEX Research and Development Unit). Rasa reported about FRONTEX role in the EU border security research and activities in the field of biometrics. She further reported about the Agency's efforts in harmonisation of the EU border control capacities, which among other things focuses on developing harmonized capability tools on biometric solutions for border control. One among many interests of the agency is the development performance assessment and testing methodologies, risk management framework and vulnerability assessment for ABC and biometric systems to name a few.

Rasa emphasized that existing and future information systems in the EU for border management and internal security rely on biometrics and interoperability. Biometric technology, therefore, is a key enable to ensure effective and efficient border control, and there is a need for international standards in this area. Further Rasa discussed the challenges pertinent to implementation and operationalisation of biometric systems at borders, which will result in a change of border control processes.

The FRONTEX need analysis has resulted in identifying the importance for mobile border solution including document inspection equipment. In this context the talk provided insight on the study pertinent to the performance assessment and testing methodology for document inspection systems, which is conducted in 2018 with trials in operational environment in Frankfurt,



**Rasa Karbauskaite (FRONTEX)**

Iceland, Portugal and Lithuania, which will conclude in December 2018. Of interest is also the report on the deployment of ABC systems with reported estimate of 1400 installations in Europe in 2018.

The keynote presentation also discussed the face morphing problem and its impact for border control, for which FRONTEX conducted a study in cooperation with the German Federal Agency for Information Security (BSI) in 2017. FRONTEX also announced a morphing workshop to be held in 2019.

Furthermore, Rasa reported about the upcoming FRONTEX pilot on biometrics on the move. This pilot will be focused on testing of existing on the move products and also investigate innovative prototypes with regard to the biometric recognition performance but also with regard to usability aspects.



## Keynote by eu-LISA on border management, internal security and migration management

The first keynote on the second day was provided by Krum Garkov (Executive Director of eu-LISA). He discussed the objective of technology deployed to facilitate border management, internal security and migration management, which demands a holistic view on processes and system, in order to turn data into information and to facilitate exchange of that information. To enable this defining standards and adherence to best practices is essential, as it was learned from the smart border pilots, which were operated by eu-LISA and 12 member states in 2015 and 2016.

The learning for European identity management is, that avoiding technology silos is of crucial importance. At the same time there is a fast process of digital transformation in the Justice and Home Affairs domain in EU. The EU is addressing this challenge by implementation of new systems such as Entry-Exit System (EES), the European System for Travel Information and Authorization (ETIAS) and through interoperability between systems (existing and new ones). The intent is, to overcome the gaps in the current information architecture in Justice & Home Affairs domain. Recently a number of initiatives are therefore launched: Registration of border crossings in Schengen area by third country nationals (TCN) in the Entry Exist



Krum Garkov (Executive Director of eu-LISA) with Michiel van der Veen (Chief Executive of EAB)



System (EES), mechanism for TCN who are visa exempt to provide information before traveling to Europe (ETIAS) and lasts not least exchange of conviction information between members states regarding TCN (ECRIS-TCN). The implementation of EES & ETIAS will lead to a better traveller's experience and finally provide better efficiency of border control process. The systems will have a positive effect on EU proactive security.

In the implementation the Commission is seeking a good balance between security and facilitation. Technology used at border will need to be more mobile in the future and must comply for instance with environmental conditions both on Scandinavian borders (with extremely low temperatures) and Mediterranean borders (with very high temperatures).

For the new architecture to be developed, high priority is given on interoperability,

which will break the silos from the past. The impact is that all system will use the same set of biometric characteristics, have a common identity repository and thus limiting significantly possibilities for identity theft and enabling identification of multiple identities. For the border operation context threat analysis tools and providing such information to border guards will also play an important role, to improve risk assessment. morphing problem, for which FRONTEX announced a morphing workshop in 2019. Rasa reported also about the upcoming FRONTEX pilot on biometrics on the move border gates. This pilot project will be focused on testing of existing on the move products and also investigate innovative prototypes with regard to the biometric recognition performance but also with regard to usability aspects.

## Report on LIGHT<sup>est</sup> project

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Rachelle Sellung (University of Stuttgart IAT/ Fraunhofer IAO) presented the Lightweight Infrastructure for Global Heterogeneous Trust management in support of an open Ecosystem of Stakeholders and Trust schemes (LIGHT<sup>est</sup>), which is a Horizon 2020 funded EU project. The objective of LIGHT<sup>est</sup> is to create a global cross-domain trust infrastructure that renders it transparent and easy for verifiers to evaluate electronic transactions and trust decisions. The presentation highlighted a good example of the valuable impact of the EAB-RPC: As LIGHT<sup>est</sup> was presented already in EAB-RPC-2017, the project consortium was invited in 2018 by the UNHCR to apply the LIGHT<sup>est</sup> Infrastructure to the DAFI Scholarship program for their refugees wanting to go to college.

## Keynote by KU Leuven on Biometrics and GDPR

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Prof. Els Kindt from the Centre for IT and IP Law (CITIP) of KU Leuven provided a keynote on legal aspects of biometric technologies. She reflected on the design of biometric systems in the light of the General Data Protection Regulation (GDPR), which provides the legal framework under which we operate biometric systems in Europe.

A core element in her talk was the discussion about the GDPR definition of biometric data in its Article 9: “personal data resulting from specific technical processing relating to the physical, physiological or behavioural characteristics of a natural person, which allow or confirm the unique identification of that natural person, such as facial images or dactyloscopic data”. In an apparent contradiction Recital 51 of the GDPR defines

an exception stating „The processing of photographs should not systematically be considered to be processing of special categories of personal data as they are covered by the definition of biometric data only when processed through a specific technical means allowing the unique identification or authentication of a natural person.“, which was included to permit the large number of governmental photographic collections. This exception is related to raw face image data as contained in video surveillance footage, which in the reading of Recital 51 does not fall under the protection of biometric data.

Els illustrated the need for privacy protection with the biometric face recognition application China, which is used to track individuals in public areas. Such tracking in Europe would be in conflict with fundamental rights as protected by the Article 8 of ECHR.

A further interesting aspect in the keynote was the reflection on the impact of artificial intelligence, which is relevant as there is a risk that algorithms may adjust to a certain subset of the population and thus not comply to the requirement of being free from bias.

With the GDPR some procedural changes are also implemented: The former Article 29 Working Party is now transformed into the European Data Protection Board. Furthermore the GDPR demands a data Privacy Impact Assessment (PIA), which is now a mandatory step for large scale biometric system and which requires careful processes and documentation of all the steps.



Round table discussion on privacy and GDPR with Prof. Farzin Deravi (University of Kent), Prof. Els Kindt (KU Leuven), Dr. Marta Gomez-Barrero (University of Applied Sciences Darmstadt) and Pedro Torres (Vision Box)

### Round table discussion on Privacy in the context GDPR

The EAB-RPC concluded with a panel discussion entitled “Biometrics and Data Protection: Finding the Right Balance”. The panel was chaired by Farzin Deravi (University of Kent) with the participation of Els Kindt (KU Leuven), Marta Gomez-Barrero (University of Applied Sciences Darmstadt) and Pedro Torres (Vision-Box).

The panel discussed, how data privacy can only be implemented in the light of a valid economic model. Further the benefit of Biometric Template Protection (BTP) mechanism was discussed and whether the opaque part of the result would still be considered “personal data” in GDPR as it may not be useable on its own for identification purposes.

Further discussion was on the impact of storing biometric data in strongly encrypted form, and if such protection is enough to satisfy the needs of GDPR.

The panel also considered the question whether data from an operational pilot can be used under certain conditions by research groups to achieve better research results. Explicit wilful consent of data subject (so

called data philanthropers) should solve the legal constraints, when the purpose is clearly defined and the retention period is part of the agreement. Data can be shared between research institutions, as long as this data sharing is transparent to the data subjects. That does not mean that the name of the receiving institution is contained in the consent form, but rather that the category of the receiver must be transparent. In that case different institutions would be considered joint controllers and every controller must ensure protection safeguard.

The panel also proposed that as an additional protection measure researchers could find agreement with data controllers that they can submit biometric algorithms to benchmarking servers for testing and evaluation purposes. Then they can obtain operational performance accuracy results, while biometric images are not disclosed.

All in all the panel and the conference illustrated that with the proper choice of privacy enhancing technologies and privacy by design can make a substantial contribution to the development and adoption of biometric technologies.

# What do the participants say?



*“The high-profile keynote speakers from FRONTEX, eu-LISA and KU Leuven addressed Europe’s challenges in Identity and biometrics, covering border management, internal security, migration and privacy”*

*“The EAB-RPC conference provided an excellent opportunity to network between various ID stakeholders from Government, Industry, and Academia and learn about best practises”*

*“The EAB-RPC conference provided a holistic and in-depth view on Europe’s innovation projects in Identity and Biometrics as well as providing valuable insights as to privacy and GDPR”*

*“The food and drinks were amazing!!”*



# EAB Launches new strategic plan to build on early successes



Source: [Biometric-update.com](https://biometric-update.com)

The European Biometrics Association (EAB) is launching a new strategic plan at its annual Research Projects Conference to continue its evolution as the region's leading association for driving innovative biometric technology and responsible biometric policy.

The plan, which is titled "Four Strategic Challenges," focuses on the main identity-related challenges currently facing Europe. The four challenges identified by the plan are: identity and migration, online identity, privacy, and inclusion. The association will address the challenges within the scope of its research and knowledge-sharing initiatives while retaining a neutral, non-partisan, non-profit approach.

The issue of identity and migration includes birth registration, the acceptance of IDs across national borders, and their use for services. The board of the EAB includes Rasa Karbauskaite, who is Senior Research Officer and manager of the Future of Border Checks project for EU border agency FRONTEX. The issue of online identity takes in the challenges of what EAB Chief Executive Officer Michiel van der Veen calls "the missing identity layer," and the currently fragmented market landscape. There are a number of types of online identity, and it is not clear what roles the market and governments will play in deciding among them, let alone which or what combination will become dominant. Privacy issues are evolving rapidly as GDPR comes into effect, but uncertainty about

responsibilities and enforcement, as well as the role of approaches like Privacy by Design, will be examined by the EAB. The need for identity systems to be fully inclusive, and to avoid the risk of excluding people when incorporating digital identity as a means of accessing services, is the fourth cornerstone of the new EAB strategy.

The strategic plan builds on the momentum the EAB generated under the stewardship of late Co-founder and Secretary Max Snijder, van der Veen told Biometric Update in an exclusive interview. Van der Veen praises Snijder's efforts not just in starting the EAB, but in growing its membership and establishing its role as the region's leading independent forum for biometrics. The next steps for the organization involve refining its mandate to engage with European stakeholders on practical issues of regional importance, van der Veen says, in a way that would have been much less relevant, if possible at all, when the EAB was founded. "It's all about much stronger focus on Europe. It is geographically bound, although identity doesn't stop at the border so of course we will talk to other regions," he notes. "We really plan to drive the agenda for Europe and take a leading position in the identity domain, to promote innovation, and to be in a sense independent of other regions."

The shift was already underway when van der Veen took his new role in June, and through a series of consultations and conversations, the new strategic plan was

## new strategic plan continued ...

formulated. In the process of carrying out that plan, EAB events serve as a means of achieving the organization's goals.

"It's very tempting to run a kind of dating agency as I call it," van der Veen explains. "You organize events and you invite one stakeholder and another stakeholder to bring them together."

Instead, van der Veen says the EAB will leverage the expertise of its membership, which includes professors, researchers, and other subject matter experts to take a substance-based approach to events. The EAB Research Projects Conference, which is taking place in Darmstadt, Germany, September 24 to 25, will also focus on the research projects which the organization is supporting. Currently the EAB is involved in 18 research projects, supported by roughly EUR 70 million (US\$82.4 million) in funding, of which van der Veen says about 93 percent comes from the European Union.

"These are projects run by a combination of academia and industry," he explains. "They come together, funded by the European Commission to work on a topic which is relevant for Europe. What we have done here is bundled all the identity related topics, and work with the EAB to disseminate the results, and inform the public on their status, and to

involve stakeholders from the government, from industry, and from academia to learn what's happening. They will use the event to bring together stakeholders and inform the ID community of what's happening in Europe in terms of innovation."

The research projects are intended to advance innovation in biometric technology, but should also help the EAB and the broader European community to address the four strategic challenges identified by the EAB.

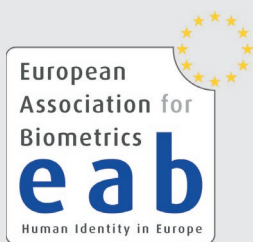
"The problems that are out there are so strategic that its in our interest to invest in those," van der Veen comments. "For the EAB, we will work with the European Commission to bring all those results to the public."

The EAB will attempt to increase its engagement with Eastern Europe, van der Veen says, and he draws inspiration from the geographical coverage, as well as the explosive growth of ID4Africa.

"If we can reach that level of footprint in Europe in a couple of years, then I think we are in the right track," he says. "We can make sure that we roll out identity systems across Europe which are secure, which are private, which give benefits to the citizens. It is ultimately for the greater good of European citizens."

# EAB kindly thanks the partners and sponsors

The EAB-RPC conference is organized by The European Association for Biometrics (EAB) in cooperation with the Joint Research Center (DG-JRC) of the European Commission.



We kindly thank our sponsors for supporting the EAB-RPC conference





## Europe's Leading ID community

The European Association for Biometrics (EAB) is the leading voice for digital ID & biometrics in Europe. We are a non-profit, nonpartisan association.

The EAB's mission is to tackle the complex challenges facing ID in Europe, ranging from migration to privacy rights. Our role is to promote the responsible use and adoption of modern digital identity systems that enhance peoples lives and drive economic growth.

Through a series of EAB initiatives we support all sections of the ID community across Europe, including governments, NGO's, industry, associations and special interest groups and academia. Our initiatives are designed to foster networking and debate, whether at an EAB hosted event across Europe, or in providing impartial advice & support to individual members

We ultimately serve the citizens of Europe in the advancement of modern digital identity systems that are fair, accessible, secure & private.

More info: [www.eab.org](http://www.eab.org)

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