



Privacy Engineering Research and the GDPR: A Trans-Atlantic Initiative

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Opening Keynote Speech

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Good morning, Ladies and Gentlemen.

Allow me first to thank our host, Professor Bettina Berendt and the University of Leuven, and the other co-organisers of this event, Jules Polonetsky and the Future of Privacy Forum and Professor Norman Sadeh and Carnegie-Mellon University.

All the four organisations who have contributed to the preparation have already been working in privacy engineering for quite a while.

- The research of **Leuven University** is well known. Indeed, one of the first papers that elaborated on the term “Privacy Engineering” was drafted here.
- **Carnegie-Mellon** University’s class on privacy engineering may have been the first with this title in the world.
- The privacy-oriented analysis of technologies from the **Future of Privacy Forum** has informed many policy discussions.
- The **Internet Privacy Engineering Network IPEN**, which we launched three years ago, has provided a forum for exchange between privacy experts and engineers across disciplines since then.

Privacy by Design and privacy enhancing technologies have been discussed for more than ten years now. These discussions have developed and shaped the concept, but still different approaches and understandings have prevailed.

With the GDPR, which will enter into force in a bit more than half a year, the idea of data protection by design and default has finally received the blessing of the legislator. It will no longer be a good practice and a recommended approach, but it will be a legal obligation.

But allow me first to remind you how we came to this and the approach taken.

The EU's data protection reform has been a kind of 'pit stop' for data protection. 20 years after the first EU instrument, the Directive, it was an opportunity to look back and ahead, to prepare for the next part of the race, with a framework which will shape data protection for the next 20 years.

This time horizon requires not only legal certainty, but also flexibility to adapt to the changes, which will happen over the period, in technology, but also in other areas. During the legislative process, the EDPS has successfully contributed to paving the way to a modern legislation.

The GDPR was adapted to this need by replacing most of the draft provisions on Commission delegated and implementing acts with provisions for guidance to be provided by the European Data Protection Board. In 80% of the cases companies operating in the EU will be able to get a single reply on data protection issues, instead of up to 29 separate replies.

The GDPR has shed more clarity on data protection rules, enhanced people's rights without hampering innovation, and introduced a degree of flexibility. This flexibility gives all of us the possibility to use more creativity to make of this reform a win-win opportunity for companies and public administrations on the one hand and people whose data are processed on the other hand.

Those companies that want to leverage the EU vision of the world we want to live in, which the GDPR contributes to outline, will now have a great chance to exploit their compliance duties and go beyond.

Online services have become "essential services" just like energy, transports and traditional communications have been until now. Yet we are not in control of our data as we should be.

Technologies and processes to empower individuals and protect their data by design and by default have not managed to break the walls of the research centres and be plugged into the products and services we use in our everyday life in a meaningful, effective way.

This new situation requires that we speed up the debate and the work. This is a call on the engineers, designers and developers from everywhere, but it is also a task for the regulators, in particular data protection authorities.

Data protection has become extremely serious and demanding. Those who need to process personal data at operational level, including in public administrations, are expecting directions; they are not expecting to be obliged to reinvent the wheel at every turn.

The developments in the Internet of Everything imply that a fair processing of personal data be carried out with as little as possible human intervention while at the same time guaranteeing the same expected protection.

We need to provide more direction, and this direction will need to be more precise and it has to take account of the many different areas of technologies and applications. At the EDPS, we have provided guidance for implementing data protection with certain

technologies such as mobile apps and web services. We know that it is not an easy task to translate the legal obligations into technical requirements, but it needs to be done.

And it should be done more and more by providing practical advice and solutions that are effective and ready to use, embedded in the processes and technology supporting our business processes.

Guidance from independent authorities is essential. However, efforts should be carried on by all parts involved.

This is a world-wide challenge.

Let's just recall the unanimous judgement of the Supreme Court of India at the end of August: for more and more countries in the world, a democratic society with human dignity and values at the centre requires the protection of our privacy and personal data as a pillar for the common good.

I really believe that the "big data protection" the EDPS has invoked as a must for "big data" can only be implemented through a by-design, technologically fuelled approach.

This trans-Atlantic initiative goes in that direction and I warmly welcome it. I am expecting that 80% of the guidance will address new technological challenges.

We, the wider privacy and data protection community - including data protection authorities, academia and industry - have the big responsibility to deliver... and deliver now!

Earlier this week, I spoke at an event organised involving the American Chamber of Commerce and local organisations of data driven app developers and designers and lawyers with an interest in technology – the "legal hackers".

This was a workshop to develop concepts for apps with privacy in mind. The results were shown at the data protection conference yesterday, and they looked very interesting. This convinces me that we have the creativity, knowledge and capabilities to create the privacy friendly technology that we need.

Today's workshop is mainly focussed on identifying the needs to create apps, which are compliant with the GDPR. But we must not end there. Compliance with the legal obligations must be the baseline, but in order to shape the future of technology and avoid developments which infringe on our fundamental rights and freedoms, we should already think beyond the current legislation. That is why we have triggered a debate on a broader approach, on ethics of privacy and data processing.

Next year we will bring this topic to the global community of data protection and privacy experts at the next International Conference of Data Protection and Privacy Commissioners.

And we will be looking for supporters among privacy engineering entrepreneurs to be involved in the conference.

The EDPS will continue to be at your disposal as among the drivers of this process. We will follow up today's event with an opinion on privacy by design and we will invite designers and developers to compete on a privacy friendly app for mobile health.

I thank you once again for being here today and I wish you a profitable “digital” outcome!