The data retention issue is about the retention by providers of electronic communication services traffic and location data in order to allow access by competent national authorities for the purpose of fighting crime and safeguarding of national security. Such data constitutes an essential tool to effectively investigate crime and prevent threats to national security (including terrorism) in the digital age. But its legal dimension is rather a difficult one. Back in early 2000s the EU operated under indiscriminate, mandatory data retention, which represented an example of the securitarian approach taken after 9/11. However, the digital revolution and switch to privacy-oriented approach led to recalibration of the requirements for data retention by the Court of Justice of the European Union (hereafter: CJEU). According to the CJEU, only the specific, purpose-oriented circumstances justify the use of the measure - either in indiscriminate or targeted way - such as a level of certainty that the state concerned is confronted with a threat, or that the targeted person/area will reveal a link with the crime. The CJEU has therefore balanced this sensitive field of law by, but left to the EU and Member States the challenging task of introducing "clear and precise rules" which will frame the measure accordingly.

To date, both the EU and Member States lack the model of translating these CJEU's requirements into a functional and, yet, protective legislative compromise, which will allow for retention within the limits considered necessary in a democracy.

Therefore, the project offers innovative approach to the issue which involves computational social science (hereafter: CSS). It is an emerging discipline at the crossroads of data science, computational modelling and social sciences, which seeks to exploit the growing availability of digital trace data and computational potential to describe aspects of our society that are difficult to capture by traditional means and methods. In the project concerned this will mean using the artificial intelligence methods to extract features and connections describing circumstances and conditions which, according to the CJEU, justify data retention.

The outcome, thanks to the CSS component, will bring a novel approach to the issue. This will fill the badly needed evidence gap in fitness of the measure to its desired purposes, and finally shape the 10-years old EU data retention impasse, which has a negative impact on privacy of electronic communication users in the EU.