

Be-Gen

Understanding the operational, strategic, and political implications of the National Genetic Database

DURATION
1/12/2013 - 28/02/2018

BUDGET
857.170 €

PROJECT DESCRIPTION

Since the 90's the Belgian Government has been exploiting DNA to help criminal investigations. In 1999 a law was voted to regulate its use – including the management by the National Institute for Criminalistics and Criminology (NICC) of the National Genetic Database (NGDB). Without a doubt, forensic DNA has revolutionized the pursuit of truth and helped numerous judicial investigations.

Despite the huge costs of this technology, its benefits for the Belgian territory have never been assessed. Our country is expected to invest even more resources to exchange its genetic profiles with the European Union in the Prüm framework. DNA data could reveal a particularly rich picture of the status of criminal activity in terms of its spatial and temporal distribution, and its relations to socio-economical and criminogenic factors.

This project aims to assess the added value of DNA data in crime research, particularly in an international framework. The project will actually interact with the European Commission funded project “PIES - ThePrüm Implementation, Evaluation, and Strengthening of Forensic DNA Data Exchange”, project number HOME/2011/ISEC/AG/PRUM/4000002150, grand agreement 30-CE-0498536/00-03, coordinated by the NICC in collaboration with seven other international partners (from France, the Netherlands and the United Kingdom).

The first objective of Be-Gen is the assessment of the operational implications of DNA (i.e., its involvement in solving cases).

The researchers at the NICC will do so through identification and critical reading of the literature on this matter, the sharing of different viewpoints, as well as the study of the empirical contribution of forensic DNA. They will use a representative number of judiciary cases. In addition to this qualitative analysis, there will also be a statistical one, completed by a series of interviews with magistrates, policemen, DNA experts and lawyers on the given issues concerning these analyses and the study of the NGDB.

To research the relation between DNA and offenders, a comparison will be conducted between those whose DNA is stored in the NGDB and those whose is not, specifically in terms of the consequences hereof for the offenders. This comparative analysis will imply studying judiciary case files of these offenders, as well as conducting approximately 40 interviews with them to query on their points of view on this matter.

Finally, the NICC researchers will observe the impact of the new DNA law (November 2011) and the changes of this investigation method in terms of national practices, as well as the international DNA data exchange. An overall analysis of the results will compare the practices from before and after the application of the new law.

The second part of the project will assess the strategic implications of DNA-based forensic intelligence (e.g., the ability to identify hotspots on the territory). The researchers of the Ghent University will start by studying the tools available to offer strategic intelligence (e.g., the National Security Plan, and reports on the cost of forensic DNA). A strategic analysis will be conducted, and then compared to analyses based upon other types of information.



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The statistical modeling of forensic DNA will be carried out in three phases. First, through the review of the various documents describing the content of the NGDB. In the following phase, a list of DNA samples with crucial information (e.g., the crime, date of introduction in the NGDB, etc.) will be provided to the researchers. Naturally the information will not contain any 'personal data'. Using this enriched dataset, the researchers will map the sampling of DNA through time and space in Belgium. Using GIS software (QGIS/GRASS), hot spot maps of DNA samples will be generated. In the third and final phase, the researchers will attempt to explain the spatio-temporal patterns by relying on characteristics of areas and periods considered. The researchers will then compare the final products of the DNA-based strategic analysis to the final products of public information such as the police statistics developed by the Directorate of Operational Police Information (CGO).

Finally, regarding the new DNA law of 2011, they will try to predict its impact by interpreting the hot spot analyses in light of Prüm information, more specifically whether the concerned profiles were involved in transnational offending.

The third and final part will identify the legal and political stakeholders, as well as the different modes of use of the evaluations made in Parts 1 and 2, and generate appropriate recommendations towards decreasing crime and improve social response. .

The VUB researchers will start by making recommendations for security policies. In this regard, they will synthesize the outcome of Objective 1 and Objective 2 and offer recommendations to the policy and decision makers. Furthermore, the researchers will conduct a comparative legal study.

Finally, the 1999 and 2011 law governing the use of forensic DNA will be studied. Focus groups with actors who will play a key role in the changes introduced by the 2011 law will be organized – in particular focus groups to find an efficient system to manage DNA hits follow-ups. Recommendations based on these groups will then be issued.

In general, this project will contribute to improve the state of security and justice in our society. Policy makers will benefit from recommendations and evaluations needed to adjust justice and security public policies, and make a better use of the available resources. From a scientific point of view, the studies evaluating the usefulness of forensic DNA data in Belgium are very rare. This will therefore constitute a scientific breakthrough in the domain.

The research will produce different outcomes and deliverables (e.g., intermediary and final reports, papers in peer-reviewed scientific) contributing to a better understanding of forensic DNA and its utilisation, as well as scientifically-based recommendations for the concerned judiciary players and for the judicial relevant actors.



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LINKS

<http://nicc.fgov.be/Be-Gen>

<http://nicc.fgov.be/pies-the-prum-implementation-evaluation-and-strengthening-of-forensic-dna-data-exchange>