



Be-Gen

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

CAROLINE STAPPERS (NICC) – SABINE DE MOOR (UGent) – INES GALLALA (VUB) –
BERTRAND RENARD (NICC)

ANNEXES OF THE FINAL REPORT

Axis 4: Federal public strategies



TABLE OF CONTENTS

ANNEX 1: BELGIAN LEGISLATION ON FORENSIC DNA ANALYSIS	3
ANNEX 2: MEMBERS OF THE FOLLOW-UP COMMITTEE	11
ANNEX 3: FOCUS GROUP	12
A. INTRODUCTION	12
B. GROUP DISCUSSIONS AS A QUALITATIVE RESEARCH METHOD.....	12
C. FOCUS GROUP DISCUSSION MEETS GROUP ANALYSIS	13
D. RESULTS	16

ANNEX 1: BELGIAN LEGISLATION ON FORENSIC DNA ANALYSIS

The 1999 Act: introducing forensic DNA in criminal investigations and creation of two DNA databases¹

The first and original law regulating the use of forensic DNA in criminal cases dates back to March 1999 and entered into force in 2002². It foresaw the regulation of the procedural aspects, to be added to the Code of Criminal Procedure (44ter-sexies and 90undecies-duodecies), the establishment of two distinct databases (Traces Database and Convicted Offenders Database) and criminal consequences to the abuse of powers by officials with access to these sensitive data.

Because of Privacy concerns the regulation was introduced in a very restricted fashion and it introduced for example the notion of non-coding DNA as the only DNA markers on which an analysis could be carried out, since it was then believed that these markers did not contain any personal information.

The 2011 Act:³ general update of the 1999 Act and incorporation Prüm

The DNA law, after a complete silence between 1999 and 2011, saw a rapid succession of small changes and amendments starting in 2011. A first proposal to amend this law was presented to the Chamber of Representatives in January 2011 but was not accepted. Quickly thereafter another proposal to amend the law was presented to the Representatives, this time successfully.

The legislator emphasised the need for modernisation, improvement and simplification of the use of DNA analyses in criminal cases in his reasoning for amending the law of 1999. Also, the increasing need to regulate the costs of the analyses played a role in its decision to amend the original act⁴.

The goal of the amendment was to draft a clear and simple procedure, one that led straight to inclusion in the DNA databases when necessary, an automated transfer of data, clear rules regarding delays and reporting of results and more privacy protection.⁵ Some definitions of core concepts were altered and some were added, such as that of the '**DNA-code number**'. The main goal hereof was to ensure an even greater protection of the right to privacy.

¹ Act of 22 March 1999 concerning the identification through DNA-analysis in Criminal Cases, *BS* 20 May 1999, 17547.

² Royal Decree of 4 February 2002 concerning the execution of the Act of 22 March 1999 regarding identification through DNA-analysis in Criminal Cases, *BS* 30 March 2002.

³ Act of 7 November 2011 concerning the amendments to the Code of Criminal Procedure and the Act of 22 March 1999 regarding the identification through DNA-analysis, *BS* 30 November 2011, 70716.

⁴ *Parl.St. Kamer*, nr. 1504/001, 3

⁵ *Parl.St. Kamer*, nr. 1504/001, 3.

Furthermore, the Act needed to incorporate new international obligations: Belgium was obliged to comply with the rules of the Treaty of 27 May 2005 (Prüm Treaty⁶) in the fight against terrorism, cross-border criminality and illegal migration.

The 2011 Act entered into force on 1 January 2014, not too long before the start of the Be-Gen project.

Under the new regime, DNA analysis can be performed either on traces found at the crime scene or on persons to establish comparison profiles. These analyses are detailed in the Code of Criminal Procedure. The procedures were simplified by foreseeing certain time delays for laboratory workers to finish analyses and quicker and improved coordination to include established profiles in the DNA databases.

Reference profiles can be established of suspects with or without their consent, or of third parties also with or without their consent.

Provisions regulating the establishment of a DNA profile of a suspect were already in place since the law of 1999, since the identification of perpetrators is – of course – the main aim of DNA analyses in criminal cases. Some changes, however, were introduced by the law of 2011. Some of these improvements include the need for an indication of guilt for the investigated criminal behaviours or similar behaviours⁷, the possibility for a minor aged 16 years or younger⁸ to willingly give their DNA for analysis, the one-time comparison of the established DNA with the Traces and Convicted Offenders database⁹, and the immediate destruction of samples and so-called sub-samples¹⁰.

The possibility of forcefully obtaining a DNA sample of an individual, in this case a suspect, was a novelty in Belgian law when it was incorporated in the basic Act of 1999. It was carefully weighed against all other options and compared to the solutions of dealing with an unwilling individual in the neighbouring countries. This possibility remains, the 2011 Act only foresaw simplifying the procedure by cutting out the intervention of the public prosecution in sending it to the national DNA databases for one-time comparison and possible inclusion¹¹.

One of the main amendments introduced by the 2011 Act was the provision of a clear regulation for the DNA analysis of third parties, who were not considered suspects in the cases for which their DNA was required and also weren't convicted for any offense¹². New provisions were introduced in the Criminal Code of Procedure to regulate this. DNA samples of these 'third parties' must be clearly labelled as being of third parties, so that they can only be used for the specific cases in which they are required. They are not compared to any of the profiles in the (two main) DNA database, not even once, and certainly not stored in these databases¹³. The

⁶ *Parl.St. Kamer*, nr. 1504/001, 4.

⁷ *Parl.St. Kamer*, nr. 1504/001, 15.

⁸ *Parl.St. Kamer*, nr. 1504/001, 16.

⁹ *Parl.St. Kamer*, nr. 1504/001, 17.

¹⁰ *Parl.St. Kamer*, nr. 1504/001, 37.

¹¹ Analogically to the system of the Public Prosecutor.

¹² *Parl.St. Kamer*, nr. 1504/001, 20.

¹³ *Parl.St. Kamer*, nr. 1504/001, 21.

use of force is also foreseen by law, continuing the policy of the legislator to opt for this approach when dealing with unwilling individuals. There must, however, be a direct link to the case for which the DNA is required.

The law of 2011 added more provisions to the Criminal Code of Procedure to foresee the possibility of having a DNA analysis carried out during the court proceedings. This can be done either on request of the public prosecution, one of the parties or by the judge himself¹⁴ in both police and correctional court.

Still aiming at harmonising and simplifying the entire procedure surrounding the use of DNA in criminal cases, the legislator has chosen to introduce via the 2011 Act a new national body: the National Cell. Since all different districts had their own databases, managed their own information, resulting in information not being efficiently shared, the legislator saw the need for one national body managing one national database¹⁵.

As such, additional costs of unnecessary analyses would be avoided, each profile would be attributed a unique code number, the profile would be linked to the APFIS (Automated Fingerprints Identification System) number, and privacy of concerned individuals would be even better protected¹⁶.

The databases 'Traces' and 'Convicted Offenders' were established through the law of 1999. The law of 2011 introduced some minor changes with regard to the retention period of the profiles in both databases:

-The deletion after 30 years of the profiles in the *Traces* database as provided by the law of 1999 was maintained in 2011, but from now on will be carried out automatically. Furthermore, consequential to the case of *S. and Marper vs. UK*¹⁷, the individual against whom proceedings have been stopped or the individual who has been exonerated can request the deletion of his profile specifically. This was foreseen as an extra safeguard to the rule of automatic deletion.

-The database *Convicted Offenders* had a similar rule of deletion of the profile of the individual 10 years after this person had deceased, as foreseen by the 1999 Act. This rule is transformed by the 2011 Act into an automatic deletion 30 years after the profile was included in the database, congruent with the regulation for the *Traces* database.

The list of crimes leading to inclusion in the database is altered by the law of 2011; it was updated and grew significantly due to the establishment of new types of crime, the possibility of a labour penalty and the addition of crimes which – because of their nature – were susceptible to inclusion in the DNA database¹⁸. Any attempt to commit these crimes would also suffice to

¹⁴ *Parl.St. Kamer*, nr. 1504/001, 23.

¹⁵ *Parl.St. Kamer*, nr. 1504/001, 24.

¹⁶ *Parl.St. Kamer*, nr. 1504/001, 25.

¹⁷ ECtHR (GC) 4 December 2008, *S. & Marper vs. UK*, Appl. nrs. 30562/04 & 30566/04.

¹⁸ *Parl.St. Kamer*, nr. 1504/001, 28.

lead to inclusion in the database¹⁹. Since the evolution in the fight against terrorism for example, this was one of the emphasised crimes that was included by 2011.

In line with the policy of simplification and increasing efficacy of the DNA databases, new powers are attributed to the manager of the national databases²⁰. The original law required an order from the magistrate to compare a DNA profile with those in the database. The law of 2011 abolishes this procedure and empowers the manager of the national DNA databases to execute the comparison. Profiles sent to the national databases for storage are automatically compared, and those sent for a one-time comparison are compared and only stored in case of a positive hit.

Belgium signed the Prüm Treaty²¹ in 2007. This Treaty later mutated into EU Council Decisions and was adopted by all EU Member States. The Treaty aimed to combat terrorism and border-crossing criminality by establishing an exchange – on a permanent basis – of the data in DNA and fingerprint databases and granting access to other countries to the license plate registries²². The exchange of the DNA data is executed through national contact points, which for Belgium is the above-mentioned National Cell, on a hit/no hit basis.

Since this *Prüm* regime only saw the light after 1999, an amendment to the original 1999 Act was necessary. The 2011 Act had to fill this legal void and identified the National Cell as the national contact point in the sense of the *Prüm* Treaty. The Act equally detailed the procedures for the international exchange. For all non-EU countries, the normal ways of international legal continued to apply²³.

The Act of 21 December 2013:²⁴ creating a (third) DNA database on missing persons

Comparison of our legislation with other countries showed the need for a database for *Missing Persons*, such as the one in the Netherlands²⁵. Plans for the establishment of such a database already existed since 1999, but no concrete steps had been taken to fulfil these plans. Only around 2013 did the legislator start drafting new amendments with as a primary goal the creation and regulation of such database. Before this new legal system, profiles of blood relatives of missing persons were also taken and included in the *Traces* database.

However, for the purpose of coherence of everything related to DNA analysis, the new 2013 provisions on this matter are conceived as amendments to the original 1999 Act. The responsibility of management of this database was entrusted to the National Institute for

¹⁹ *Parl.St. Kamer*, nr. 1504/001, 28.

²⁰ *Parl.St. Kamer*, nr. 1504/001, 31.

²¹ Act 26 December 2006 agreeing with Prüm Treaty.

²² *Parl.St. Kamer*, nr. 1504/001, 33.

²³ *Parl.St. Kamer*, nr. 1504/001, 34.

²⁴ *BS* 30 januari 2014, 8360.

²⁵ *Parl.St. Senaat*, nr. 5-1633/1, 1.

Criminalistics and Criminology (NICC), the manager of the *Traces* and *Convicted Offenders* databases.

Although at the time of identifying the remains of a human body the idea of a committed crime is never far off, the law had to be amended in different ways since the focus shifted from the identification of a perpetrator to the identification of the victim²⁶. Amendments in this regard mainly handled the procedural aspects of DNA analyses and the adoption of completely new articles in the 1999 Act.

A first amendment relates to the introduction of the definition of a missing person. The legislator initially considered to introduce a time delay after which all missing persons were formally to be considered as a 'missing person': 3 weeks after filing a missing person's report²⁷. After discussing this with the public prosecution's office and the Cell Missing Persons at the Federal Police, this option was set aside. Instead, the process would rely on the expertise of the stakeholders involved and to consider all persons who are missing under suspicious circumstances according to the Royal Public Prosecutor and the Cell Missing Persons²⁸.

Furthermore, a new provision was introduced to regulate the sampling and establishing of DNA for a reference profile of a blood relative in up- or side-line of the missing person. The blood relatives can give written consent for their DNA to be sampled for the purpose of establishing a DNA profile to be compared to the profiles in the existing (Trace and Convicted Offenders) databases, creating a first exception to the rule central in the 2011 Act of a third party not being compared to the profiles in these databases²⁹.

Three remarks are to be mentioned here; first, the profile can be used solely for the identification of an unknown deceased person directly or indirectly or to facilitate the search for this missing person. Second, when sending this DNA sample to the laboratory worker, it must be clearly mentioned that the sample belongs to a person who is not a suspect, nor a third party to a crime, but to a blood relative of a missing person³⁰. Lastly, it is of paramount importance that there is no possibility of forceful sampling of DNA, contrary to what is the case for suspects and third parties to crimes. Sampling of DNA of blood relatives of missing persons is always voluntary.

Other 2013 Amendments to the basic 1999 Act relate to the creation of an entirely new database on missing persons. A new provision foresees the establishment of such database and specifies the content hereof: profiles of missing persons, of unknown human remains and of blood relatives of missing persons (up, side and down-going bloodlines). The profiles of the first

²⁶ *Parl.St. Senaat*, nr. 5-1633/1, 2.

²⁷ *Parl.St. Senaat*, nr. 5-1633/1, 4.

²⁸ *Parl.St. Senaat*, nr. 5-1633/6, 2.

²⁹ *Parl.St. Kamer*, nr. 2985/002, 8.

³⁰ *Parl.St. Kamer*, nr. 2985/002, 7.

two categories do not get attributes a DNA code number, but those of the blood relatives do with the mentioning of the code 'MP' (Missing Persons) next to it³¹.

The redrafted 1999 Act, from now on, not only repeats the definition of a missing person. Its list of purposes is expanded to the identification and facilitation of the search for missing persons, to give this new database a legal basis.

Profiles in the Missing Persons database are erased when they are no longer deemed necessary and in any case 30 years after their registration in the database. Any blood relative who has given a sample of their DNA can at any time also request the immediate deletion of their profile and all other linked information from the database. The request should be directed to the public prosecutor's office³².

The law of 2013 was originally planned to enter into force on 1 July 2015, but this was delayed³³ to 1 July 2017. The legislator mentioned the need for multiple reforms following the adoption and entering into force of the law of 2011 as the main reason for this delay³⁴.

The Act of 10 April 2014:³⁵ expanding *Prüm cooperation*

The law of 10 April 2014 entered into force quite rapidly, on 10 May 2014.³⁶ It only brings a slight change to the DNA law and has no procedural consequences.

The aim is the expansion of the kind of data that is susceptible to exchange in light of the Prüm Council Decisions on international exchange of DNA and other data. Belgium in the 2011 amendments (*above*) intended to exchange unidentified profiles exclusively, i.e. the DNA profiles in the *Traces* database. It quickly became clear that, in doing this, it would be the exception³⁷ in the international playing field and that this would cause grave practical problems and even hinder the efficacy of the planned exchange³⁸.

The 2014 Act included identified profiles as those to be exchanged with the other Member States in the exchange of data in the fight against terrorism and cross-border crime.

As the amendments were of a purely technical nature, the voting of these amendments and the entering into force of it did not meet any significant hurdles and happened quite efficiently.³⁹

³¹ *Parl.St. Kamer*, nr. 2985/002, 8. As observed *above*, there really was a legal gap at this point in Belgian law: before the establishment of the new database these profiles were included in the database *Traces*, where they do not belong!

³² *Parl.St. Kamer*, nr. 2985/002, 88.

³³ Act of 28 June 2015 for the amendment of the Act of 21 December 2013 amending the Code of Criminal Procedure and the Act of 22 March 1999 regarding identification through DNA-analysis in order to establish a DNA database Missing Persons regarding the date of entry into force (1), *BS* 30 juni 2015, 37587.

³⁴ Regulation nr. COL 9/2002.

³⁵ Act of 10 April 2014 for the amendment of article 8 of the Act of 22 March 1999 concerning the identification through DNA-analysis to facilitate the international exchange of DNA data, *BS* 30 April 2014, 35758.

³⁶ *BS* 30 April 2014, 35758.

³⁷ *Parl.St. Senaat*, nr. 5-1831/1, 1.

³⁸ *Parl.St. Senaat*, nr. 5-1831/1, 2.

³⁹ *Parl.St. Senaat*, nr. 5-1831/1, 3.

The Act of 10 April 2014:⁴⁰ including more crimes in the DNA scope

This very technical law amends the DNA 1999 Act by introducing the probation penalty as an autonomous penalty in the Belgian Criminal Code.⁴¹ The new law states that conviction to a probation penalty will automatically lead to the inclusion in the DNA database of Convicted Offenders, and as such confirms the status of this penalty as being ‘autonomous’ in the Belgian criminal law.

The Act of 1 February 2016: including more sex-related crimes in the DNA scope

This 2016 Act⁴² expands the list of crimes for which conviction or conviction for attempt to these crimes leads to an inclusion in the database Convicted Offenders. Included are more crimes with a sexual nature (crimes regarding the violation of one’s honourability and voyeurism).

The Act of 9 April 2017:⁴³ reforming the Missing Persons database

Only 4 years after the establishment of the law creating the Missing Persons database,⁴⁴ and even three months before this law was planned to enter into force⁴⁵, the legislator already saw the need to introduce certain amendments to ensure that the law was updated to the available technology.

The law of April 2017⁴⁶ does exactly that; it introduces some extremely necessary changes to the procedure and the content of the sampling and management of the Missing Persons database even before it entered into force.

One of the principal changes is that the profiles of unidentified remains would no longer be deleted automatically 30 years after their registration. The Missing Persons Cell clearly communicated that quite a number of the cases they are working on go back more than 30 years and that such regulation would effectively cut short their tools in bringing closure to the families of these long-term missing persons. The possibility of deletion on request of the public

⁴⁰ Act of 10 April 2014 introducing probation as a stand-alone punishment in the Criminal Code and amending the Code of Criminal Procedure and the Act of 29 June 1964 concerning the delay and probation (1), *BS* 19 June 2014.

⁴¹ Probation means that the convicted offender will have to comply with certain limitations and rules for a set amount of time.

⁴² Act of 1 February 2016 amending different provisions concerning infringement of honourability and voyeurism, *BS* 19 February 2016.

⁴³ Act of 9 April 2017 amending the Act of 21 December 2013 concerning the establishment of a DNA database ‘Missing Persons’, *BS* 4 May 2017.

⁴⁴ Act of 1 December 2013 amending the Code of Criminal Procedure and the Act of 22 March 1999 concerning the identification through DNA-analysis for the establishment of a DNA database on ‘Missing Persons’, *BS* 30 January 2014.

⁴⁵ Act of 28 June 2015 amending the Act of 21 December 2013 amending the Code of Criminal Procedure and the Act of 22 March 1999 concerning the identification through DNA analysis for the establishment of a DNA database ‘Missing Persons’, *BS* 30 June 2015.

⁴⁶ Act of 9 April 2017 amending the act of 21 December 2013 concerning the establishment of a DNA database ‘Missing Persons’, *BS* 4 May 2017, *err. BS* 10 May 2017.

prosecutor's office, however, remains. This is an important safeguard for the relatives of said missing person.

Furthermore this new law also introduced the possibility for minors to willingly give their DNA for sampling and establishment of a profile to be compared with unidentified remains. The legislator did foresee enough safeguards to protect these minors; their DNA can only be sampled under certain circumstances, such as their explicit consent and eventual guidance throughout the whole process.

Lastly the group of persons who can give their DNA for the purpose of creating a reference sample is expanded to include the other biological parent of a child⁴⁷. If a missing person and another person had a child together, the DNA of the other biological parent can be used to filter this out of the DNA profile of the child and to thus come to a scientifically more accurate analysis of the DNA of unidentified remains. This is why the law also does no longer mention solely 'blood relatives' but has replaced this with the larger term of 'relatives'.

The Act of 17 May 2017⁴⁸ creating a (fourth) database for professionals intervening in the investigation

The legislator did not wait long to commence the establishment of a fourth Elimination Database. In the past the creation of such a database had led to a lot of discussion and controversy. Although it entered into force on 10 June 2017, it still does not practically exist and regarding the initial set-up and the follow-up management there is still a lot of regulation to be created and a lot of work to do in general. It has been discussed already above in this report. The 2017 Act gives a definition of who should be included in this Elimination Database: every person who, because of their professional function and powers, is directly or indirectly involved in the search, trace, analysis and processing of the traces found on crimes scenes.⁴⁹

In the preparatory documents to the Act, the legislator, for example, mentions police officers, laboratory workers, or assistants of the federal scientific police department.

The law so far does not regulate the establishment and management of this database in detail. It only brings some minor practical amendments in preparation hereof.⁵⁰ The further details will have to be regulated in smaller circles and in discussion with the professional actors who will be included in the database to determine how narrow or how wide the inclusion criteria should be.

For this we refer to chapter 4.4 the report, specifically dedicated to this subject.

⁴⁷ Act of 22 March 1999 concerning identification through DNA analysis, BS 20 May 1999.

⁴⁸ Act of 17 May 2017 amending the Code of Criminal Procedure and the Act of 22 March 1999 concerning the identification through DNA analysis for the establishment of a DNA 'Elimination Database', BS 31 May 2017.

⁴⁹ Art. 3(b) Act of 17 May amending the Code of Criminal Procedure and the Act of 22 March 1999 concerning the identification through DNA analysis for the establishment of a DNA 'Elimination Database', BS 31 May 2017.

⁵⁰ Such as the new article 5*quinquies* of the law.

ANNEX 2: MEMBERS OF THE FOLLOW-UP COMMITTEE

NAME	INSTITUTION
Emmanuèle Bourgeois	BELSPO
Laurent Coucke	DJT
Patrica Nève	Federal Prosecutor's Office
Kurt Desoete	Federal Police DIRJU
Ronny Decorte	University of Leuven
Daniël Flore	Federal Department of Justice
Patrick Jeuniaux	NICC – DIS
Fabienne Ledure	Prosecutor's Office Brussels
Christophe Mincke	NICC- OD Criminology
Olivier Ribaux	University of Lausanne
Marc Simon	Federal Police DJSOC
Evert Stamhuis	Erasmus University Rotterdam
Séverine Steuve	NICC- DIS
An Vankeirsbilck	Federal Police DJSOC
Vanessa Vanvooren	NICC – DNA
Pierre Van Renterghem	WELBIO

ANNEX 3: FOCUS GROUP

A. Introduction

The team decided to conduct some Focus Group Discussions (FGD) in light of the Be-Gen research in order to inform about the hurdles encountered by the actors in the field and to identify potential problems in the use of DNA analyses in criminal cases. The FGD are part of WP3 and are essential to the development of concrete policy recommendations and the latter could be of influence on the daily activities of the participants.

Most importantly, a new FGD structure was developed by combining different scientific methods. This structure is further explained in detail in this report.

Firstly, however, the methodological aspects are studied. We then further discuss this newly developed form of FGD in further detail; the preparation, the process and the potential conclusions we can take away from these FGD.

Following the structure of this FGD, the results of the conducted discussions are then disseminated before formulating our final conclusions.

B. Group Discussions as a Qualitative Research Method

The classical qualitative research knows two distinct ways in which qualitative data can be gathered in social research. This can happen as an observer-participant where the researcher as an observer will analyze a certain dynamic in a group, or in the form of open interviews where the researcher will conduct an interview from a certain individual. The group discussion is considered an in-between of these two classical qualitative research methods.

Qualitative research in its most restrictive way allows the researcher to identify certain problems from the point of view of the participants and that he/she is able to understand the meaning of certain behaviors, events or objects (HENNINK ET ALL.) This is also known as the interpretative approach and it is considered typical for the qualitative research method.

In its larger sense, qualitative research is the application of qualitative research methods. It's thus an approach that allows the user to study the experiences of the concerned individuals in detail by applying qualitative research methods such as a focus group discussion or an in-depth interview.

C. Focus Group Discussion meets Group Analysis

ii. General

Focus Group Discussions can best be described as group interviews. A researcher interviews several people who, because of their knowledge and experience, have been invited to participate. During this interview a moderator is appointed who takes up a leadership position while the small group of participants discuss the subjects that are presented by the researcher. What is said during these discussions is the essential data and information the researcher is looking for.

The Group Analysis method, on the other hand, was developed by Belgian researchers at the Brussels University of Saint-Louis. VAN CAMPENHOUDT, FRANSEN and CANTELLI state that the main difference with a classical focus group discussion lies in the fact that the involved actors in a group analysis participate from the very beginning to the process of the interview.

In their method, participants are divided into groups of approximately 12 persons who together identify and discuss potential issues following a set of rules developed by the researcher. By following this up by a round table discussion every participant then gets the opportunity to comment on these identified issues. The (dis)similarities of all comments are then registered in a comparative schema that is presented to the participants who again can comment on this synthesis.

While in a classical focus group discussion the participants are only invited to share their opinions on certain issues, in a group analysis they partake in a collective research exercise where first and foremost they themselves identify the issues to be discussed.

The developers of this method state that herein lies its power; not only does it allow to have a better understanding of social phenomena, but also of the perspectives of the participants.

iii. Hybrid Method

In the hybrid method, elements from both the classical focus group discussion as from the group analysis are used. There are three researchers that have very distinctive roles to play in this interaction: a moderator, an assistant taking notes and an observer who also takes notes from anything that might seem important during the verbal or non-verbal interactions.

The participators for the Be-Gen analysis were divided in two groups of ten people.

Initially, the Be-Gen team set out for the focus group analysis to look as follows:

PHASE 1: ANECDOTES	
Step 1	Sharing short versions of anecdotes
Step 2	Selection of anecdotes
Step 3	Complete Anecdote
Step 4	Identifying issues coming forth from anecdote
Step 5	Questions
PHASE 2: INTERPRETATIONS	
Step 6	Round table discussion
Step 7	Reactions by individual sharing anecdote
PHASE 3: FOCUS GROUP DISCUSSION	
Step 8	Classical focus group discussion
PHASE 4: ANALYSIS	
Step 9	Identifying similarities and differences across themes.
Step 10	Hypotheses of researchers and discussion
PHASE 5: PRACTICAL RECOMMENDATIONS AND EVALUATION	
Step 11	Practical recommendations
Step 12	Evaluation

In a first step, identical to the group analysis, all participants are asked to share an anecdote that they feel is important to the subject for which the group has been composed. More specifically, Be-Gen researchers launched a call to the participants before the actual discussion took place, asking them to think about a proposal that would enhance the role of DNA-analysis in criminal case in any kind of way, as well as the reasons why they think this. They were instructed to not take into account any existing limitations or rules.

While we initially intended to limit ourselves to only one proposal or anecdote per participant, it became clear very quickly that the participants had prepared ample proposals and suggestions and were full of ideas as to how to improve the role of forensic DNA. At the moment, the research team took an ad hoc decision to be flexible and to accept multiple proposals per participant. This led to a time constraint and the necessity to skip steps 2-5, but given the amount of information that was gathered by listening to the participants, their suggestions and their grievances, this was not considered as a loss to the research.

Proposals that were set forth by the participants dealt with all kinds of aspects of the forensic DNA analysis. Some handled the importance of a better feedback to laboratories, while other called for a uniform approach across districts, some called for the establishment of a DNA

database with the profiles of suspects and others were keen on expanding the possibilities of forensic DNA to new and modern technologies by foreseeing them in the legislative acts.

Identical to the group analysis, the second phase of the hybrid discussion goes deeper into the interpretations that can be given to any anecdote. A round table discussion is held, where all participants can explain how they experience the discussed issue and the main elements that can be concluded from this.

In practice, this phase converged with the first one as all participants were eager to share their ideas. To the researchers, it felt more natural to allow this.

In the third phase, a classical focus group discussion is held. A questionnaire is set prior to the actual discussion by the researchers, which is then answered and discussed by the participants. They can all voice their opinion on the handled issues, and then have a certain time to debate these issues amongst themselves.

The first subject that was brought forward by the researchers is that of the issue of DNA-profiles of victims ending up in the databases containing traces collected on crime scenes. Since there is no systematic collection or comparison of the DNA of victims, trace profiles in the Criminalistics database are sometimes hidden profiles of victims for which the authorities do not have a reference profile to compare it with. This potentially leads to an inefficient use of the trace database.

The second subject handled the lack of a uniform approach among police districts, as some handle certain tables and follow certain guidelines that others do not. Participants were asked whether they felt that a harmonization on a national level would be a good idea.

The third issue was that of the so-called forensic intelligence. From WP2 of the Be-Gen research, it became clear that when linking the DNA database to other already available databases, a whole new lot of information can be deduced. The information coming forth from this linking and cross-referencing of databases is what is to be considered the forensic intelligence.

Fourthly, researchers involved in WP3 carried out an extensive comparative study in which they looked at Belgium's neighboring countries and analyzed the similarities and differences in the process, the applications, the possibilities etc. These results were presented to the participants, specifically regarding the technological advances and applications in the field of forensic intelligence.

Lastly the human right that is most impacted by carrying out forensic DNA analyses, was discussed: the right to privacy. Participants were asked how they feel about the difficult exercise that is present in weighing off the sacrifice of certain aspects of our privacy for the common good, and how they would like to see the Belgian legislator evolve in this respect.

The analysis is done in a fourth phase. The assistant takes ample notes, not only of the similarities and differences that were set forth during the first two phases, but also those that became clear from the group discussion. These similarities and differences can then be discussed by the participants and the researchers can pose their own hypotheses and stimulate the debate on this matter.

In the fifth and final phase the practical recommendations are formulated and the evaluation is made, as would be the case in the group analysis. A lot of attention is paid to the

recommendations that are put forward by the participants. We expected a lot more discussion and diverging interests, but all in all the participants were on the same line. Finally, an evaluation of the whole focus group analysis is important to ask the participants how they experienced it, whether they would like to add something that they were unable to share during the discussions. The research team itself can then, once the participants have left, go through the same process in order to share their ideas, experiences and take-aways from the process.

D. Results

i. Part I: Participants' Suggestions

All of the participants' suggestions could be categorized in 1 of 5 main themes: sensitization and cooperation (1), police performances (2), laboratories (3), databases (4) and new technologies (5). Hereunder follows a brief description of their suggestions, proposals and ideas that were brought forward during the focus group analysis in order to come to an improved and renewed role of forensic DNA in criminal investigations.

Concerning the **sensitization**, the participants indicated that they would like to see a larger curriculum of educational courses and an enhancement in the sharing of knowledge. They also specifically spoke about the sensitization of the first responders to the scene as one of the participants had witnessed these handling evidence without the necessary gloves. But also the magistrates should be sensitized regarding forensic DNA according to some participants, as well as an as large audience as possible in order to educate the public about the possibilities and the flaws of forensic DNA. This would, according to some participants, take away the fear some members of the public have towards DNA and the involvement of DNA in the judicial process.

Furthermore, the **cooperation** between the different services starts with a good communication. Several participants believe that this communication could be noticeably improved by a digitalization of the process and the establishment of an online interface. This interface would also contain all information, all legal documents, court orders etc. In this way the information can be exchanged between the different involved services in a dynamic fashion. The participants refer to the LIRC system in the Netherlands as their source of inspiration. Even the laboratories would benefit from having access to such an interface. One of the participants predicts that such need for a centralized online platform will develop even on a European level.

This leniency towards international and European cooperation is something that was noticeable amongst the participants; many of them stated that the Prüm decisions and actions have already helped a lot, but that the procedure remains too complex. The management of the French DNA database for instance is completely different from the Belgian way of doing things, and consequently difficult to understand for many of the players involved.

The organization of **police performances** is another point that had been brought up by some of the participants. The PACOS project was supposed to help in this, according to one of the participants. This has yet to be completed, however, and in the meantime there is no organizational checkup of the management of evidence pieces.

Another participant sees the DNA analyses as a possible biometrical identification tool. The participant sees this functioning with a nation-wide database and as a possible way to discern when there are aliases in play. The reasoning behind this is that since the data would be kept by police, the argument of the right to privacy cannot be made.

Finally one of the participants state that according to Belgian legislation the secret collection of DNA is not possible but that he would like to see this become a possibility for the police forces. Different participants are from the medico-legal world and some work in the **laboratories**. They say that they would greatly benefit from a more homogenous policy amongst the laboratories themselves. In one district the results come in much faster than in another, for example. Or in one district they do not even analyze the collected DNA traces from breaking and entering cases. One of the participants suggests that it would be beneficial if all laboratory workers are forced to use the same kits all over the country, analyze the same markers of the DNA and are forced to re-analyze the DNA when dealing with serious crimes.

The feedback to the laboratories can also not be underestimated. This will help the laboratory workers in discerning what is good and what should be changed in their workings. Finally, one of the participants points out that the cost of the kits that are used in the laboratories increases by approximately 3% yearly, but that the price that the government pays the laboratories has decreased. It is evident that the laboratory workers would like to see the contributions of the government for their analyses go up in the near future.

Many of the participants' suggestions related to the different **databases**, either already in place or not yet established.

Some suggestions related to a greater input in the existing databases. This could happen via an expansion of the list of crimes that leads to an inclusion in the database Convicted Offenders. The participants specifically used the crime of entering without breaking as an example or the crimes related to narcotics.

Several participants stated that the DNA of traveling gangs, drug addicts and repeat offenders should definitely also be included in the database, even if the crimes they were convicted for were not listed in the act.

There should, according to some participants, also be an expansion of the number of databases. The database Suspects is one of these that was mentioned. Another one is the database of crime scene workers.

Not everyone is happy with the fact that the profiles in the existing databases are kept in an anonymous fashion. Some state that it delays the work and makes it more complicated than necessary. The de-anonymization of these profiles is another suggestion that was made.

The incorporation of the management of the databases under police authority would, according to some participants, make the work of the police authorities less complicated and more efficient.

Finally, the idea is suggested to link different databases to gather more information from these

linkages. Different databases are mentioned by the participants, such as the database of the Service of Foreign Affairs, the database for travel visa requests, etc.

The participants are also well aware of the **new technologies** that are available in the world of forensic DNA analyses. One of the first changes, they suggest, is enabling the possibility to work on coding DNA contrary to the limitation we now know of solely being able to study non-coding DNA. The legislative acts should be conceived in a flexible manner so that they can grow and evolve with the scientific evolutions in time. Another participant suggests to define the loci/markers on which the laboratory workers can conduct analyses and to delete the notion of non-coding DNA completely. The decision of the French Cour de Cassation was also mentioned, showing that in our neighboring countries they are already applying these new technologies of phenotyping. Once coding DNA has been accepted as a subject of DNA analyses, there are many possibilities of new applications that can be introduced, such as NGS, Rapid DNA, ARN DNA, Y analysis, etc.

ii. **Part II: Focus Group Discussion**

In the second part of the discussion the researchers presented some findings which were the result of the operational, strategic and political aspect of the research coming together and presenting preliminary results to the players in the field. Based on these results 5 different themes were discerned and presented to the participants who could voice their opinions.

From the operational aspect it became clear that the **DNA-profile of victims** was often kept in the database Criminalistics since there is no systematic comparison with the DNA of all victims in all crimes. Hence, DNA traces are often kept as traces while they actually belong to the victim and not the perpetrator. The participants did not show any concern when confronted with this finding. Their assessment was that it would be simply too costly to carry out a DNA analysis to determine whether the gathered traces were originating from the victim or not.

A second preliminary conclusion was that there is a need for a **national harmonization** of the policy across the different districts as the collection of traces does not happen in the same way across the country, leading to different numbers and results.

Some participants agreed, while others did not. Their voices were unanimous regarding the need for an increased communication however, stating that no formalization of bureaucracy can replace the common sense of face to face communication between the different services.

Be-Gen research showed that the DNA database is a stand-alone database that can only be used for the identification of an individual via the comparison of profiles. There is, however, a great potential of **forensic intelligence** that is untapped at the moment. If we join the national police database with the DNA database, we get a lot more information that can be used in the fight against crime than a mere database for the purpose of identification.

The participants were very enthused about the idea of linking other databases to the DNA-database to thus get new data and information. Some participants raised issues about the ethical and privacy implications, however.

More than once the idea was voiced that the management of the database should be under the authority of the police, as to increase the efficiency.

A fourth preliminary result came from the comparative study and concerned the **new technologies** that are available in the field of forensic DNA. The allowed applications of forensic DNA are very limited in Belgium, due to the fact that the Act was conceived with the idea that it would only serve for identification through comparison and as such took the criterion of non-coding DNA as its basis.

All of the participants stated that they would like to see an evolution in the possibility of including new applications of forensic DNA in their work. They all feel that the acts in place are too strict and impede evolution in their field.

Many of the participants also feel that the **privacy** safeguards have too much of an impact. DNA contains genetic information, states one participant, which is then turned into an alphanumeric code. This code is like a license registration plate and in the eyes of this specific participant, it is absurd that it enjoys the protection it does. Other participants agreed and requested a new balancing exercise between privacy protection safeguards and DNA analyses efficiency.

iii. Part III: Conclusion

The main legislative changes that were effected in 2011 foresaw, according to the legislator, in a modernization of the use of forensic DNA in criminal cases and in an improvement and simplification of the procedure. The formal character and anonymization of DNA analyses were pushed even further in order to help establish these goals and although the Act of 2011 entailed many positive changes, the far-reaching formalization has been experienced by many actors in the field as gravely inefficient.

We conclude that there are two recurring themes in the results of the focus group analysis.

First, **efficiency**. Most of the suggestions and comments related to this. A greater sensitization, improved communication and closer cooperation would benefit the efficiency of an investigation. As would a better management, greater input or greater number of DNA databases.

It is remarkable, however, that many of the participants felt uneasy with a widespread database of police and crime scene workers, while they did not seem to care about the profiles of the victims being kept in the database Criminalistics.

The drive of the participants to follow the general biometrical tendency was very clear. This, in combination with an easier access and management, would also contribute to a greater efficiency. These efficiency-related suggestions often came from participants that worked in police and other crime-fighting field.

Second, the attention to the **quality and reliability** of forensic DNA analyses. These type of suggestions came mainly from participants working in scientific areas.

The lack of a uniform policy in the accredited laboratories, the need to feedback and economical pressure under which these analyses suffer are all elements that can jeopardize the

qualitative norms to which the DNA analyses have to respond. Also via sensitization and communication the quality can be improved, as well as through the correct management of evidence pieces on a police level.

The suggestions that would lead to a higher **efficiency** of forensic DNA are sometimes too far-fetched, but many of them seem evident in the evolution of a modern society. The establishment of a database Suspects or of a universal DNA database would be contrary to article 8 of the ECHR. Therefore, it is our recommendation to tread lightly in this regard and to be very careful and vigilant to function creep.

At the same time, the differentiation between coding and non-coding DNA is outdated and does not have a place anymore in modern science or modern legislation. A well-though legislative amendment would be in place. At the same time an economical study should be carried out, keeping in mind efficiency. An increased efficiency would, in our opinion, automatically lead to fewer costs. This, in turn, allows other budgets to be available without the **quality or reliability** of the analyses to be questioned.