NATIONAL FORENSIC DNA DATABASES

SOCIO-ETHICAL CHALLENGES & CURRENT PRACTICES IN THE EU

EUROPEAN ETHICAL - LEGAL PAPERS N° 9
NATIONAL FORENSIC DNA DATABASES

EUROPEAN ETHICAL - LEGAL PAPERS N° 9

CURRENT PRACTICES IN THE EU
NATIONAL FORENSIC DNA DATABASES

Nathan Van Camp
Kris Dierickx

CURRENT PRACTICES IN THE EU

EUROPEAN ETHICAL - LEGAL PAPERS n° 9
Within the Centre for Biomedical Ethics and Law of the Catholic University of Leuven - one of the leading bioethical and legal research centres in Europe - we are involved as coordinator, partner or participant in different European research projects. Biomedical ethics and law are rapidly evolving disciplines. Although there exists already a great number of specialized peer reviewed journals and series of books in both disciplines we felt a growing need for a medium through which the results of our research can directly be presented to the research community and the interested community at large. To meet this need we decided to start the European Ethical-Legal Papers. Such papers will also contribute to the transparency we owe to society that finances our research efforts. We also hope that it will contribute to the discussion and the exchange of information and ideas among researchers in Europe and elsewhere.

Herman NYS  
Professor Medical Law

Kris DIERICKX  
Associate Professor Medical Ethics
TABLE OF CONTENT

Foreword ................................................................................................................. I

Table of Content................................................................................................. III

I. Introduction........................................................................................................... 1

II. Introduction to Forensic DNA Profiling and Databasing ......................... 5

§ 1. The science of DNA profiling................................................................. 5

§ 2. Forensic DNA databases.......................................................................... 8

III. Ethical and Policy Challenges of Forensic DNA Databases ........................... 12

§ 1. The collection of DNA samples............................................................. 12

§ 2. Entry and removal criteria of the DNA profiles .................................. 16
   A. Complete forensic DNA databases.................................................... 17
   B. Databases with established entry and removal criteria.................. 19
   C. DNA profiling without DNA databasing........................................ 21

§ 3. Sample retention ...................................................................................... 22

§ 4. Database access......................................................................................... 26

§ 5. Exchange of DNA information within the EU................................... 27

IV. Forensic DNA Database Management Policies in the EU............................ 31

§ 1. Austria ...................................................................................................... 33
   A. Sample collection .............................................................................. 33
   B. Entry criteria ...................................................................................... 33
C. Removal criteria
D. Sample retention
E. Database access and international exchange of the DNA profiles

§ 2. Belgium
A. Sample collection
B. Entry criteria
C. Removal criteria
D. Sample retention
E. Database access and international exchange of the DNA profiles

§ 3. Cyprus
A. Sample collection
B. Entry criteria
C. Removal criteria
D. Sample retention
E. Database access and international exchange of the DNA profiles

§ 4. Czech Republic

§ 5. Denmark
A. Sample collection
B. Entry criteria
C. Removal criteria
D. Sample retention
E. Database access and international exchange of the DNA profiles

§ 6. Estonia
A. Sample collection
B. Entry criteria
C. Removal criteria
D. Sample retention
E. Database access and international exchange of the DNA profiles

§ 7. Finland
Forensic DNA Databases in the EU

A. Sample collection.................................................................46
B. Entry criteria ........................................................................46
C. Removal criteria....................................................................47
D. Sample retention ....................................................................47
E. Database access and international exchange of the DNA profiles ...........................................................................47

§ 8. France......................................................................................48
A. Sample collection.................................................................48
B. Entry criteria ........................................................................49
C. Removal criteria....................................................................49
D. Sample retention ....................................................................50
E. Database access and international exchange of the DNA profiles ...........................................................................50

§ 9. Germany..................................................................................51
A. Sample collection.................................................................51
B. Entry criteria ........................................................................52
C. Removal criteria....................................................................53
D. Sample retention ....................................................................53
E. Database access and international exchange of the DNA profiles ...........................................................................53

§ 10. Greece ..................................................................................55

§ 11. Hungary...................................................................................56
A. Sample collection.................................................................56
B. Entry criteria ........................................................................56
C. Removal criteria....................................................................57
D. Sample retention ....................................................................57
E. Database access and international exchange of the DNA profiles ...........................................................................57

§ 12. Republic of Ireland..............................................................58

§ 13. Italy .........................................................................................60

§ 14. Latvia ......................................................................................61
A. Sample collection.................................................................61
B. Entry criteria ........................................................................61
C. Removal criteria ................................................................. 61
D. Sample retention ................................................................. 61
E. Database access and international exchange of the DNA profiles ............................................................. 61

§ 15. Lithuania ................................................................................. 63
A. Sample collection ................................................................. 63
B. Entry criteria ........................................................................... 63
C. Removal criteria ................................................................. 64
D. Sample retention ................................................................. 64
E. Database access and international exchange of the DNA profiles ............................................................. 64

§ 16. Luxemburg .............................................................................. 65
A. Sample collection ................................................................. 65
B. Entry criteria ........................................................................... 66
C. Removal criteria ................................................................. 66
D. Sample retention ................................................................. 67
E. Database access and international exchange of the DNA profiles ............................................................. 67

§ 17. Malta ....................................................................................... 68

§ 18. Poland ..................................................................................... 69

§ 19. Portugal ................................................................................... 70

§ 20. Slovakia ................................................................................... 71
A. Sample collection ................................................................. 71
B. Entry criteria ........................................................................... 71
C. Removal criteria ................................................................. 71
D. Sample retention ................................................................. 72
E. Database access and international exchange of the DNA profiles ............................................................. 72

§ 21. Spain ....................................................................................... 73

Sweden .......................................................................................... 74
A. Sample collection ................................................................. 74
B. Entry criteria ........................................................................... 74
C. Removal criteria ................................................................. 75
D. Sample retention ..........................................................................................75
E. Database access and international exchange of the DNA profiles ..........................................................................................75

§ 22. The Netherlands ..........................................................................................76
A. Sample collection ..........................................................................................76
B. Entry criteria .................................................................................................77
C. Removal criteria ............................................................................................77
D. Sample retention ............................................................................................78
E. Database access and international exchange of the DNA profiles ..........................................................................................78
F. Sample collection ..........................................................................................80
G. Entry criteria .................................................................................................80
H. Removal criteria ............................................................................................81
I. Sample retention ............................................................................................81
J. Database access and international exchange of the DNA profiles ..........................................................................................81

§ 23. UK (Scotland) ............................................................................................82
A. Sample collection ..........................................................................................82
B. Entry criteria .................................................................................................82
C. Removal criteria ............................................................................................83
D. Sample retention ............................................................................................83
E. Database access and international exchange of the DNA profiles ..........................................................................................83

V. Conclusions .................................................................................................85

VI. Appendix ..................................................................................................91
Table I: Entry criteria ......................................................................................91
Table II: Removal criteria ...............................................................................93
Table III: Sample retention .............................................................................95
Questionnaire ..................................................................................................98
Already published ..........................................................................................101
GeneBanC is an EU funded research project which aims to investigate the ethical, legal and social issues of three types of biobanks: classical biobanks, population biobanks and forensic DNA databases. The overall aim of our research is to contribute to the analysis of ethical and policy issues regarding the creation and organization of forensic DNA databases in the European Union. This is a major theme that consists of many interrelated issues. It does not only involve the study of the current situation of forensic DNA databases in the European Union, but at the same time claims to be an ethical assessment as well. Therefore, it also involves the study of the potential threats which these databases might pose to a range of individual rights. One can think here of fundamental rights such as the right to privacy, the right to liberty, the right to moral and physical integrity, the right to health and the presumption of innocence. What makes it particularly difficult to assess these threats to individual rights is that forensic DNA databases are at the same time of great value for society at large. Being one of the most effective forensic identification tools currently available, individuals and society as a whole have a great interest in well-functioning forensic DNA databases. These two views on forensic DNA databases should be taken together. This means that responsible forensic DNA database policies are challenged to find a reasonable balance: forensic DNA databases have to be made as effective as possible for the purpose of crime detection, but without causing an unjustifiable violation of fundamental individual rights. It is our hope that this study can contribute to this aim.

In this issue of European Ethical-legal Papers, we present the results of an enquiry into the legislative framework of forensic DNA databases in the EU. The character of this paper is thus descriptive rather than evaluative in nature. This is, however, a good starting point for a study that in later stages shall exclusively focus on ethical issues. A clear vision on what is at stake in the field can only be developed when there is knowledge of the actual practices. Of course, not all details regarding the management of forensic DNA databases are of interest for our eventual aims. Focusing on the ethically most
salient features of forensic DNA databases in constructing this inventory allows us to deal with later topic more adequately. In the first place, this means that a lot of attention is spent on entry and removal criteria: whose DNA profile is included in the various European databases and for how long? It will become apparent that the various Member States have given a different answer to this question. This mixture of different policies can also be observed in the other issues that are addressed. This is for example the case with both the topics of sample retention and that of confidentiality: what kind of information is stored in the database and who has the right to consult it? The observation that there are different policies is of great importance for later stages of our research. It means that different Member States give different weights to the balancing issues which we mentioned above: some give greater weight to the right of the state to protect itself from crime, others to the individual rights of their citizens. In later stages we shall examine if some sort of common ground can be discerned in these divergent policies.

We shall start this paper with a brief introduction into forensic DNA profiling and databasing. Subsequently we shall discuss the ethically most salient features of forensic DNA databases. We shall focus on sample collection, entry and removal criteria, sample retention, European harmonization and confidentiality-related matters. Finally, we shall present the actual inventory of the current forensic DNA databasing policies in the European Union. Each Member State of the EU shall therefore be discussed separately. In appendix we have added useful tables which give a more synoptic view on the current situation of forensic DNA databasing in the European Union.

The information regarding the forensic DNA database policies within the EU is scattered over a host of laws, protocols, codes and circulars. It was therefore not easy to collect all the necessary information. As we could never have accomplished this without the help of our various contact persons, we would like to thank Marios CARIOLOU, Lukas PRUDIL, Zdenek KREJCI, Janos WOLLER, Vincenzo PASCALI, Pierre MALLIA, Helena MONIZ, Peter KOVÁC, Angel CARRACEDO, Grzegorz KACZMARCYK, Krzysztof REBALA, Takis VIDALIS, Christian STEICHEN and the forensic divisions of the police of Austria, Belgium, Denmark, Estonia, Finland, Germany,
Latvia, Lithuania, Luxemburg, Sweden and the Netherlands for furnishing information on the forensic DNA database policies of their countries. As we have aimed to supply as much information as possible and because we were dependent on different sources, it is not unthinkable that this paper contains wrong or incomplete information. The possible mistakes and wrong interpretations are therefore our responsibility. We welcome all reactions on kris.dierickx@med.kuleuven.be.

Leuven, 25 April 2007

This work was supported by GeneBanC, an EU –FP6 supported STREP contract number 036751.
II. INTRODUCTION TO FORENSIC DNA PROFILING AND DATABASING

§ 1. The science of DNA profiling

Deoxyribonucleic acid, or DNA, is found within every cell of every living organism. Its structure is determined by a string of nucleotides which can contain one of four bases: adenine, cytosine, guanine and thymine. The fact that these bases complement each other –adenine pairs with thymine and cytosine with guanine– explains the double strand of DNA, which means that there are always two exact copies of DNA present in a cell (i.e. the double helix structure). The double stranded DNA is spread over the chromosomes and each human cell contains 46 chromosomes, including 22 pair of autosomes and 2 sex chromosomes. The presence of these two pairs of chromosomes forms the basis of human heredity: one pair originates from the father (22 autosomes and either one X or Y chromosome) and the other from the mother (22 autosomes and 1 X chromosome).

The combination of the bases then determines the exact coding capacity of the DNA. The string of adenine, cytosine, guanine and thymine functions as a template for ribonucleic acid (RNA) which codes for proteins, which in turn are responsible for every cell process and thus eventually for all living processes. One has to bear in mind, though, that only approximately 3% of human DNA contains coding sequences. The other 97% is therefore often referred to as “junk DNA”\(^2\). What makes DNA interesting from the viewpoint of forensic science is that the strings of nucleotides are so long that they inevitably show variation, either in sequence or in length. It are these

---

\(^1\) We are most grateful to professor Ronny Decorte of the Department of Human Heredity (KULeuven) for his critical comments on the scientific parts of this paragraph.

\(^2\) It is the information which is retrieved from this “junk DNA” that is used in forensic DNA profiling.
differences which make it possible to discriminate between individuals.

Alec Jeffreys introduced DNA analysis in forensic science with the discovery of minisatellites and the use of restriction fragment-length polymorphism (RFLP).\(^3\) In this technique, a restriction enzyme is used to cut the DNA into different fragments. By using a technique called Southern blotting, these fragments then are transferred to a membrane which is treated with a labeled probe that binds specifically to variable loci.\(^4\) Finally, a visible pattern of the fragments is obtained by exposing the membrane to an X-ray film. This has been called a DNA-fingerprint as it was shown that the obtained pattern was individual specific. The greatest drawback of this technique was that relatively large amounts of DNA are needed if the process is to be concluded successfully. The negligence of this condition often leads to the production of unreliable results or sometimes even to no results at all.\(^5\)

With the invention of the Polymerase Chain Reaction (PCR) by Noble Price laureate Kary Mullis\(^6\), it finally became possible to analyze very small amounts of DNA and even severely degraded DNA samples. PCR also allows for a significantly reduction of the time required for analyzing and led to much more reliable results. Basically, the PCR technique allows for the amplification of certain fragments of the DNA. It is carried out in three different phases. First, the DNA is heated to a temperature of approximately 94°C Celsius as a result of which the DNA is denaturated, which means that the two strings of the double helix are separated. The second step consists of binding of the primers, chemically constructed short pieces of DNA of which the sequence of base structures (adenine, cytosine, guanine and thymine) is complementary with those at the end of the DNA fragment which one wants to amplify. The last phase consists of DNA synthesis with the polymerase enzyme. As a result the primers are extended to a

---


\(^4\) These probes are either labelled with alkaline phosphate or with radioactive nucleotides.


complete piece of DNA. This process can of course be repeated as many times as necessary.

Since the mid-nineties, DNA fingerprinting has been replaced by DNA profiling that is carried out using short tandem repeats (STRs), highly polymorphic regions that have short repeated sequences of DNA. STR analysis is carried out using amplified DNA sequences which are generated by means of the PCR. These are resolved either through gel electrophoresis or capillary electrophoresis which will eventually allow forensic scientists to determine how many repeats of the STR sequence are actually present. It is because the length of these STRs is unique for every individual that they can serve for forensic purposes.

Although STR analysis is a very powerful discriminator, it cannot always be used for the analysis of hair shafts and degraded samples such as bones and teeth which lack sufficient nucleated cellular material. These samples must be examined using mitochondrial DNA analysis (mtDNA). Mitochondrial DNA is present in multiple copies in the mitochondria (500-1,000) in each cell. It has a higher chance to survive after cell death and can therefore be used for the analysis of very old samples. As mitochondrial DNA is maternally inherited however, the results of mtDNA sequencing cannot distinguish among children born to the same mother.

The eventual objective of forensic DNA analysis is the comparison of a DNA profile obtained from a crime scene stain with those obtained from known individuals in order to identify the possible contributor to the stain. However, if a match is established between two DNA profiles, there is still always a very small chance that the person whose profile matches the unidentified DNA profile is not the person one is looking for. Two different persons can actually have STRs with the same length by coincidence. Therefore, one always has to bear in mind that the results of DNA profiling are probabilistic, not categorical: they do not provide a logical basis to establish

---

uniqueness. The chance that two unrelated persons share the same DNA profile is nevertheless very small. The FBI has for example declared that their practice of analyzing 13 different loci reduces the chance that two unrelated individuals have the same DNA profile to approximately one in a trillion. Although there are also several examples of cases in which other limitations besides its probabilistic nature are contested, in recent years the evidentiary value of DNA typing has been generally accepted in legislations and courtrooms around the world.

§ 2. Forensic DNA databases

A forensic DNA database is a digital repository that contains DNA profiles which are used for criminal investigation purposes. A forensic DNA database typically holds DNA profiles of unidentified crime scene stains, crime suspects, convicted offenders and sometimes also of missing persons. Furthermore, most countries also store the DNA samples from which the DNA profiles were derived. Although the latter is not strictly necessary for the investigation process, most database custodians claim its usefulness for reasons of quality control, test result disputes and technology updates. As DNA analysis techniques have been constantly improved, more and more DNA material that is found at crime scenes is eligible for DNA profiling. While in the early days of DNA profiling quite large quantities of DNA were needed, today, a DNA profile can even be derived from very small amounts of skin cells, hair shafts, blood, saliva, etc. Crime scene investigators collect these biological

12 Such as the possibility that a sample gets contaminated or that a member of the laboratory staff makes a mistake.
13 See also section III, §3.
materials because they possibly belong to a criminal offender or a crime victim. DNA profiles that are derived from stains that are collected at a crime scene are usually compared with the identified profiles that are already on the database. The reasons why some people have their DNA included in a forensic DNA database are diverse and differ more or less from Member State to Member State. Some include all convicted offenders in their database or only those who have committed some particular offence like murder or rape. Others also include suspects of certain offences or even all suspects of any recordable offence. Usually, a sample is collected by means of a buccal swab or by taking some blood. When a match occurs, this does not an sich prove the guilt of a certain individual, but it does prove that at a given time he was present at the crime scene. Although the occurrence of a match therefore can be considered as an important piece of evidence that somebody is involved in a particular criminal offence or that he is precisely not involved, further acts of investigation will always be needed in criminal investigations.

Although the English police started to use forensic DNA profiling techniques as early as 1985\(^{15}\), the first operating European national DNA database for offender identification was established in England & Wales on 10 April 1995 (NDNAD\(^{16}\)). By 1999, over 700,000 profiles were entered into the NDNAD and around 700 matches were achieved each week.\(^{17}\) From then on, the NDNAD has been constantly growing and in 2004 it held approximately 2,527,728 million identified individual profiles and 228,463 profiles which are

---

\(^{15}\) One of the first cases which was solved using DNA profiling was the famous 1985 Pitchfork-case (\textit{R v. Pitchfork and Kelly}, 1987). After a violent double-rape murder, the police asked all young males from a small English village to deliver a blood sample. When this so called “dragnet” did not produce a positive match, it became apparent that a local baker called Colin Pitchfork attempted to avoid detection by delivering a false sample. He was retested and eventually confessed, whereupon another suspect, which was wrongfully held by the police, was released. See: Walker, C. & Cram, I., “DNA profiling and police powers,” \textit{Criminal Law Review} 479 (1990): 480.

\(^{16}\) ‘National DNA Database’

derived from unidentified crime scene stains.\textsuperscript{18} Currently, the NDNAD contains approximately 3,790,551 identified profiles and 312,958 stains\textsuperscript{19}, and it is expected that in the near future it will hold 25\% of the male population of England and Wales.\textsuperscript{20} Following the lead of England and Wales, several other EU Member States have also enacted laws which allowed for the creation of a national forensic DNA database. Austria, Germany, The Netherlands and France introduced their databases in 1998, followed in 1999 by Finland and by Belgium and Denmark in 2000. Today, most Member States have established fully operating national DNA databases with a few notable exceptions such as Spain, Italy and the Republic of Ireland.

At the onset of forensic DNA databasing in the mid-nineties, most commentators were confident that it would seriously improve crime detection rates and that enormous amounts of valuable police time would be saved due to its capacity to both include and exclude suspects in criminal investigations.\textsuperscript{21} A decade later however, the efficiency and cost-effectiveness of forensic DNA databases is still a point of discussion. For England & Wales, for example, it is claimed that the chance that an unidentified crime scene profile matches a subject profile that is already stored in the NDNAD is approximately 52\%.\textsuperscript{22} At first glance, this seems to be a good result. However, according to official figures of the UK Parliamentary Office of Science and Technology, DNA profiles are only successfully loaded onto the NDNAD for less than 1\% of recorded crimes.\textsuperscript{23} The main reason for this rather modest total impact of the NDNAD is that it is not always possible to gather usable biological material at the crime scene.


\textsuperscript{20} Idem, 246.


\textsuperscript{23} Available at: \url{http://www.forensic.gov.uk/forensic_t/inside/news/docs/postpn258.pdf} (accessed 15 June 2007).
scene. McCartney has clarified this by explaining that three conditions must be met in order that a crime scene profile can be entered into a DNA database: a criminal must have left some DNA at the crime scene or on a victim, trained technicians must competently gather these DNA traces and the DNA must be of sufficiently quality and quantity to permit analysis.24

Nevertheless, these results are rather disappointing when one knows that the NDNAD absorbs approximately 7% of police budgets.25 Tracy and Morgan have observed a similar state of affairs in the US. Although the logic behind forensic DNA databases seems convincing, they hold the view that “when one examines the nature and distribution of crime, the presumed usefulness of DNA databases as a crime control measure may not only be far from obvious or certain, but may turn out to be grossly exaggerated”26. Of course, it is not possible to assess the cost-effectiveness of such a database against the value it yields for society when it assists in catching for example a serial rapist. Forensic DNA databases can indeed assist criminal investigations in detecting individuals who pose a threat to society. However, we have to see to it that this does not legitimize an unreasonable expansion of their power and that they do not become a threat to civil rights and liberties of society at large.

III. **Ethical and Policy Challenges of Forensic DNA Databases**

The practice of forensic DNA databasing consists of different phases. A DNA sample has to be collected, processed, entered into the database, compared with other DNA profiles, possibly expunged from the database, etc. Although the underlying principles of the different forensic DNA databases in the EU are practically the same, the Member States can still make different choices regarding the management of their particular national forensic DNA database. Not all of these choices are at the same time also ethical choices. The choice of profiling technique, for example, is not really an ethically salient aspect of forensic DNA databasing, but is rather made based upon scientific criteria such as the amount of biological material that it requires for processing, the reliability of the technique, etc. In this paragraph we will therefore only discuss those issues of forensic DNA database management that imply specific ethical challenges and demand explicit policy choices: the collection of the DNA samples (§1), the entry and removal criteria of the DNA profiles (§2), sample retention (§3), database access (§4), and the exchange of information within the EU (§5).

**§ 1. The collection of DNA samples**

Before they can be processed and stored into a forensic database as DNA profiles, DNA samples have to be physically collected. Usually, three kinds of sources can be discerned: crime scene stains, bodies of crime suspects and bodies of convicted offenders. Crime scenes stains are considered the least problematic topic of the three because in collecting them, law enforcement officers do not have to physically deal with persons. In most Member States they can therefore without much restrictions collect DNA samples from the crime scenes they are investigating. Only in Belgium and Italy a judge has to decide whether DNA stains may be collected from a particular crime scene.
The rationale behind this measure being that the collected DNA could also belong to innocent persons, especially when DNA stains are collected from a public place. In these Member States, DNA samples can therefore only be collected from a crime scene when there are sufficient reasons to think that they are valuable pieces of evidence. The taking of DNA samples from persons’ bodies, on the other hand, is considered more problematic because this can be regarded as a violation of one’s spatial privacy. In general, spatial privacy refers to the intrinsic value which people attach to the physical space they consider to be private. A clear example of such a space is our home, but material properties and the extent to which we allow people to come near our body can also be considered as physical spaces which resort under spatial privacy. The most pertinent physical space which most people estimate as belonging to their utmost privacy is the body. Intrusions into the bodily integrity are indeed considered to be the most severe violations of our privacy and are therefore –like the absolute right to be safeguarded against torture– protected by a host of laws and regulations on all institutional levels. Although the collection of a DNA sample from a person certainly involves a physical intervention on the body, the question is if this action can also be qualified as an intrusion into the bodily integrity and thus, consequently, as an invasion into the spatial genetic privacy of a person. In medical and clinical research practices, the potentially problematic nature of this issue is therefore usually avoided by applying the principle of informed consent. Broadly, this key term in medical ethics refers to a certain form of respect for the autonomy of persons. It requires that in medical treatment and research nothing is done to a person without informing him on all consequences and without the person’s consent. A typical rule which results from this principle is for example that bodily samples can only be taken with the donor’s consent. It is questionable, however, whether this principle of (informed) consent can also be applied to the context of criminal investigation. When dealing with persons who are, or possibly will be a threat to the safety of society, Do we need their permission to perform an action that possibly can help to solve a crime case or that will help to avoid serious harm being done in the future? Most EU Member States have

given a negative response to this question and have laid down that consent is not required when taking a sample from an individual. The objection that the physical act of taking a DNA sample from a person violates his right to physical integrity has therefore been brushed away several times by arguing that this procedure is only minimally intrusive and that it is performed in accordance with standard medical practices.28

When looking at the *European Convention on Human Rights*, coercive DNA sampling could possibly imply a violation of Article 3:

“No one shall be subjected to torture or to inhuman or degrading treatment or punishment.”

The European Court of Human Rights, however, has made it for example clear in its ruling in *Raninen v. Finland*29 that the acts that could imply a violation of this article must be serious ones. In its evaluations, the ECHR therefore uses Article 8 (2) as a touchstone for possible violations of privacy rights:

“There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.” (Authors’ italics)

In *Raninen v. Finland*, it was ruled that the handcuffing of a military conscript objecting to military and substitute service was not necessary, but that this act was not serious enough to imply a violation of Article 3. As DNA sampling by law enforcement officers is only minimally intrusive and is done in the interest of the prevention of crime, it can be presumed that it does not imply a violation of Article 3 either.

This issue has also attracted much attention in the United States where the question has risen whether the collection of a DNA sample involves a violation of the *Fourth Amendment*.30

---


Amendment protects individuals against “unreasonable searches and seizures”, one could argue that this also includes the taking of a bodily sample for forensic processing. It has, however, been acknowledged by both courts and commentators that the taking of a sample through a mouth swab is not really an intrusive act and that it therefore is exempted from constitutional protection.31

However, in practice we can observe a difference in the treatment of crime suspects and of convicted offenders. As suspects are supposed to be treated as innocent as long as they are not convicted, in some Member States a court order or the permission of high ranked police officials is needed to collect a DNA sample from a suspect. This is for example the case in Germany and Belgium. This should ensure that law enforcement officers do not collect DNA without sufficient reasons. In the Netherlands police officers are allowed to collect all crime scene DNA stains that possibly belong to a criminal offender, but they are not authorized to order a DNA analysis of these DNA samples. This power only comes to the officer of justice and the judge-commissioner. In others, such as France, the law does not explicitly mention whether consent is necessary or not. The fact, however, that a refusal from the side of the suspect would make him look even more suspicious, does incline to conclude that even in those countries, as a suspect, one does not really have a choice than to comply. Moreover, the French law stipulates that a person who refuses to donate a DNA sample is to be punished by a year’s imprisonment and a fine of 15000€ when it concerns a suspect of a crime and two year’s imprisonment and a fine of 30000€ when it concerns a convicted offender.32

This means that although force can not be used when taking a tissue sample, refusal is not a viable option either.

Coercively collecting tissue samples from convicted offenders, on the other hand, is in most Member States allowed without many restrictions. As these persons are placed under the custody of the state, coercive sampling is considered as a legitimate right of the state because convicted offenders are considered to hold diminished rights. Some, like The Netherlands, Germany and Finland for example, do however only collect a DNA sample from convicted offenders who

have committed a ‘serious offence’ or who have to serve a certain prison sentence. Another important issue regarding the collection of DNA samples is whether DNA sampling of minors and mentally ill persons should be allowed. Most Member states do in fact allow this. Although this seems reasonable if the creation of a DNA profile from such an individual is considered necessary for the investigation of a certain crime, we have to be extremely cautious when dealing with individuals who cannot legally and morally be considered fully responsible for their deeds. As in several other situations involving minors and mentally ill persons, it seems therefore reasonable to treat them differently than fully accountable adults. Therefore, some Member States, such as Germany, require the consent of the legal guardian(s) of the minor before a sample can be taken. Similar restriction could be applied when dealing with mentally ill persons. It also seems reasonable that even when law enforcement officers are permitted to take a DNA sample from a minor, a certain minimum age should still be regarded below which sampling is no longer considered reasonable. As juvenile crime rates are rising in the last decades, it could for example be necessary to allow DNA sampling from the age of 15, as in Finland and Germany is the case. The privacy of both minors and mentally-ill persons should however be protected with extensive safeguards.

§ 2. Entry and removal criteria of the DNA profiles

After the DNA samples have been collected, digital DNA profiles can be created and stored into a database. Most Member States apply certain conditions to the entry and removal of the DNA profiles into and from their DNA database. Only regarding the storage of DNA profiles that are derived from unidentified crime scene stains it is almost universally accepted that these kinds of profiles should be automatically stored into a DNA database.33 There seems to be, on the other hand, no agreement amongst the Member States on the entry and removal criteria of the profiles of identified suspects and convicted offenders.

Although it can be observed that almost every Member State has installed its own entry and removal criteria, there are theoretically three different systems that could be applied.\textsuperscript{34} The first possibility is the construction of a database that holds the DNA profiles of all citizens, even from those who have not been involved or connected to any criminal offence. The second consists of storing the DNA profiles of those individuals who are suspected or convicted of committing a particular type of crime.\textsuperscript{35} Finally, one could establish a system that \textit{sensu stricto} does not involve a database: DNA profiles are only created for individuals who are suspected of being involved in a particular criminal offence and are only used in the criminal investigation concerned. We will briefly glance through the respective advantages and disadvantages.

A. Complete forensic DNA databases

Although this system is currently not in use anywhere in the world, it has been suggested that the creation of population-wide forensic DNA databases could prove to be the most successful measure in the fight against crime in history. As every citizen would have to cede a DNA sample at birth, the chances for a positive hit should improve theoretically to a level where identification is achieved every single time that an unidentified DNA profile is loaded onto the database. The most cited advantages of this system are therefore its unsurpassed capacity to identify suspects and exonerate innocents and the fact that no groups in society would be discriminated. The latter can only be understood if we know that for instance in England & Wales, a third of the black male population is included in the NDNAD.\textsuperscript{36} A complete forensic DNA database would therefore put an end to this overrepresentation of certain minority groups.


\textsuperscript{35} This system could of course in turn be subdivided into categories such as: only sex offenders, all persons convicted, all persons convicted of serious offences, all persons arrested, all persons arrested for serious offences, or a combination of different categories.

However, there are also some serious disadvantages to this system. Firstly, enormous amounts of financial resources will be needed to set up such a database. These will not only be required for financing the actual DNA tests, but also for the erection and staffing of more forensic laboratories. Critics fear that the reallocation of budgets in which this will result will proof to be detrimental for other activities in the criminal justice system; all the more because the number of criminal investigations in which DNA profiling can actually be used is rather limited.37

More important from an ethical point of view however, is that such a complete forensic DNA database will possibly lead to the violation of a number of individual and civil rights. In the first place, one could think here of the issue that we have discussed in the previous paragraph. As we have seen, coercive sampling has been accepted by both domestic and international courts as a legitimate measure to prevent and detect crime. However, Article 8 (2) of the European Convention on Human Rights, which can be used as a touchstone to assess such practices, mentions that they must accord with the basic principles of a democratic society. This could mean that although DNA sampling of crime suspects and convicted offenders is an acceptable act considering its objective, doing the same with citizens who are not in any way connected with any criminal offence is a disproportionate measure, especially when sampling is carried out at birth.

There are also some other rights at stake. The reason why forensic DNA databases were established was that they could assist in the detection and deterrence of individuals who were once involved in a certain criminal offence. A forensic DNA database is therefore a list of ‘usual suspects’. When a DNA stain is found at a crime scene and no suspect is available, one can load the derived DNA profile onto the database and compare it with all the profiles that are available. As many individuals who once have been involved in a criminal offence show a tendency towards recidivism, there are indeed sufficient reasons to qualify this as a reasonable practice. However, as complete forensic DNA databases would hold DNA profiles of all citizens,

regardless whether they have been involved in any criminal activity or not, it could be argued that this so called ‘cold searching’ involves a violation of the principle of the presumption of innocence. DNA profiles of which the police assume that they belong to a criminal offender will be compared with those which belong to plainly innocent individuals. Nguyen has characterized such a search as a “fishing expedition” by which “the government assumes that everybody is guilty until evidence proves otherwise”.38 Therefore some argue that population-wide forensic DNA databases could lead to the creation of a “suspect society”.39

B. Databases with established entry and removal criteria

This system is used by most EU Member States. Entry and removal criteria of both crime suspects and convicted offenders are more or less described in the law or in another official document. Contrary to complete forensic DNA databases, this system requires that a certain degree of connection must exist between an individual and a criminal act. It therefore seems to be more in accordance with the principle of proportionality than the latter system. Nevertheless, for a variety of historical and political reasons, civil rights and human dignity issues are viewed differently by the various Member States, resulting in different opinions on the question whose profiles should be retained and for how long.40

The first question which has to be answered is whether one should allow for the storage of suspects’ profiles in the database or not. As we have already emphasized for the issue of sample collection, a suspect must be considered innocent until he is convicted. Belgium has concluded from this principle that it is inappropriate to store suspects’ profiles in a forensic DNA database. The majority of the Member States, however, have concluded that the storage of these profiles in a forensic DNA database should be organized with utmost

prudence and therefore they only store suspects’ profiles if they are suspected of having committed a serious crime or when they are deemed a serious danger to society. Their DNA profile can therefore be used for the criminal investigation in which they are considered a suspect or it can be compared with all or particular unidentified crime scene stains. Only a few Member States such as England & Wales and Slovakia have not established any restriction for their database entry criteria, and allow for the entry of the profiles of those suspected of any recordable offence.

The question whether DNA profiles of convicted offenders should be stored in a forensic database seems to be less controversial. As it has been shown that a significant part of the convicted offenders show a tendency towards recidivism, there seems to be a consensus amongst the Member States that the entry of these profiles is vital for their fight against crime. Not all Member States allow however that all convicted offenders’ profiles are entered. Some have laid down that only the profiles of those who are convicted of serious criminal offences such as murder or sexual offences are to be included. France and Luxemburg have therefore constructed a list of crimes that are eligible for entry. Finland and The Netherlands, on the other hand, have stipulated that only those who have committed an offence that could lead to a certain time of imprisonment can be entered. Belgium’s regulations are less clear as their relevant legislation merely mentions that only those convicted offenders that have committed a ‘serious offence’ can be included.

Those states who do allow for the entry of the DNA profiles of all convicted offenders such as England & Wales and Austria, on the other hand, argue that most offenders of serious crimes have already been involved in minor offences in the past.41 Clarifying this argument, Peter Gammon, president of the England & Wales Police Superintendent Association, has for example said that this is a first step towards the creation of a DNA database of the whole population which would make it possible to identify offenders before they became “serial offenders”.42 Germany, on the other hand, has chosen to steer a middle course between these two positions and also allow

for the entry of the profiles of those individuals who have repeatedly committed a minor offence.

Regarding the removal of the DNA profiles from the database, a distinction should be made between suspects’ profiles and convicted offenders’ profiles. Suspects whose DNA profile were entered for the purpose of the investigation of a particular offence, but who are acquitted at the end of the legal process or whose charges are dropped at the end of the investigation process, must be considered innocent. It therefore seems reasonable that their DNA profile should be removed immediately from the database. In most Member States that retain the DNA profiles of suspects this is indeed the case. The great exception here is again England & Wales which allows for their indefinite retention.

The regulations that address the removal of convicted offenders’ profiles vary from Member State to Member State. Either the profiles have to be removed after a certain time period following the end of the punishment, or they have to be removed after a certain time period following the decease of the person concerned. It should not be surprising that also in the case of convicted offenders, England & Wales allows for the indefinite storage of their DNA profiles in the NDNAD.

C. DNA profiling without DNA databasing

Not all Member States have currently enacted specific laws that allow for the creation of a forensic DNA database. It is striking that especially Southern European Member States such as Portugal, Spain, Italy and Greece have not yet established a national database. In its Resolutions of June 1997\(^43\) and June 2001\(^44\) on the exchange of the results of DNA analysis, the EU Council however recommended that the Member States should make an effort to establish compatible


forensic DNA databases. Although these Resolutions are not binding, most of the Member States we have just mentioned are therefore planning to adopt relevant legislation in the near future. The fact that these Member States do not use a forensic DNA database yet does not mean that they do not use forensic DNA profiling altogether. In absence of a law that explicitly deals with the specific rules that govern a forensic DNA database such as entry and removal criteria, it is indeed not possible to retain identified DNA profiles. However, they still can retain unidentified crime scene DNA stains. When in a criminal case that involves a DNA stain a suspect is arrested, it is possible to collect a DNA sample from the suspect and compare it with the stain. This system has the advantage that only those individuals who are clearly connected to a certain crime can have their DNA tested. Its efficiency, on the other hand, is rather low as it can not assist in cases where there is no suspect available.

§ 3. Sample retention

As we have indicated in section II, DNA profiling is performed by using the ‘non-coding’ fragments of the DNA (i.e. ‘junk DNA’). The digital profiles which are eventually entered into the forensic DNA database therefore consist of a unique set of numbers that can only be used for identification purposes. In other words, these DNA profiles do not contain any information on the genetic architecture of an individual. Although some commentators\(^{45}\) have warned that it is not only important to know what we currently can read from the DNA profile information, but what we will be able to read from it in the future, it is generally agreed that the storage of DNA profiles by law enforcement agencies therefore does not seem to pose an immediate threat to genetic privacy. The retention of the DNA samples from which the profiles are derived, on the other hand, is considered one of the most problematic topics in forensic DNA databasing.\(^{46}\) The reason for this lies in the fact that, in contrast with the DNA profiles, the DNA samples themselves are considered to contain highly personal genetic information on the individuals from which they were taken.


\(^{46}\) Ibid., 122.
The forensic use of DNA therefore seems to give cause to entirely new problems when compared to other forensic identifiers. Whereas classical fingerprinting, for example, can only be used for identification purposes, DNA analysis can generate much richer information. It can for instance tell us whether someone is genetically predisposed to develop a certain disorder. Employers, insurance companies or other agencies for which this information is of interest could use this information to discriminate against individuals or groups with a particular genetic make-up.

Some concerns have also been raised concerning the fact that behavioural geneticists could use forensic DNA samples for research into genetic predispositions to violence. Although the scientific value of such kind of research is still highly controversial, the mere fact that this research is being undertaken could be worrying. As previous genetic studies of this kind of search for the ‘criminal gene’ have shown, even inconclusive results could induce the idea that propensity to violent and antisocial behaviour is genetically predisposed and could therefore lead to discriminating measures against individuals who are supposed to carry these genes.

Another possibly problematic feature of DNA that is not present in other forensic identifiers is that it is always partly shared with one’s biological relatives, which means that the police also holds (albeit incomplete) information on people who in most cases have not been involved in any kind of offence. Furthermore, DNA analysis can


48 Certain ethologists thought that the explanation of violent behavior could be found in the established fact that certain men have two instead of one Y chromosome. Although this conclusion has been refuted in many other studies now, even governmental agencies still use the story of the XYY man to push towards more research into the genetic causes of violent and antisocial behavior. See: Barry Steinhardt, “Privacy and forensic DNA data banks,” in DNA and the criminal justice system. The technology of justice, ed. David Lazer (Cambridge: MIT Press, 2004): 183-185.

49 Monozygotic twins even share the same genetic information, so one cannot produce a DNA profile of such a person without at the same time doing the same for his twin.
reveal certain familial ties which sometimes were previously unknown to the parties involved.\textsuperscript{50}

When compared with clinical genetics, there are also far less safeguards that could protect the samples from being misused. In the latter context, the genetic information of patients resorts under a host of privacy and confidentiality laws and is since long protected by certain established ethical principles. Although in this field too, there are still many issues pending which need to be addressed, in most countries forensic DNA sampling does not even resort under these protection measures. While most countries have added particular provisions on data protection into their forensic DNA laws, in most cases these do only address the DNA profiles, \textit{not} the DNA samples. The same problem can be observed on the European level. In a recommendation of the Council of Europe regarding the use of personal data in the police sector for example\textsuperscript{51}, the list of principles regulating the collection, storage, use and communication of information by the police only applies to the DNA profiles, \textit{not} to the DNA samples. EU Directive 95/46/EC on Data Protection, which took effect in 1998, does not seem to be applicable to DNA samples taken for forensic purposes either because article 3 of the Directive says explicitly that this Directive “shall not apply to the processing of personal data in (...) operations concerning public security, defense, State security and the activities of the State in areas of criminal law”\textsuperscript{52}. It therefore remains the question to what extent the Directive protects DNA samples from secondary use, even when this secondary use falls outside the scope of public security and criminal law.


There is consequently a serious danger for what some have called ‘function creep’, the use of DNA samples for purposes beyond those envisaged at the time of collection. DNA samples that were collected for forensic identification purposes could, for example, be used for genetic research. The lack of particular legal safeguards against the abuse of the collected samples therefore poses a threat for genetic privacy and could produce serious unwanted social consequences.

As we have mentioned above, the DNA profiles do not contain any sensitive personal information and are nevertheless all what forensic science needs to identify an individual. It is therefore at first sight not clear why forensic laboratories also want to retain the corresponding DNA samples in the first place. If they would simply use the sample to generate a profile and subsequently destroy it, there would not be a problem for genetic privacy. Proponents of retention call upon a practical issue to defend this practice. They argue that this is necessary to enable upgrading of the profiles as soon as new technologies are available. Otherwise, the database has to be rebuilt every time a new profiling technology is implemented. Another argument which is often used is that a reference sample is needed in order to retest it in case of a dispute on the accuracy of the original test results.

Although the retention of the DNA samples therefore carries some risks for genetic privacy with it, only a few Member States such as Belgium, Germany, Sweden and Lithuania destroy the samples after the DNA profiles have been created. The majority of the Member States, on the other hand, distinguish between samples of suspects and samples of convicted offenders. Generally, the samples of suspects who are acquitted or whose charges are dropped must be destroyed. Austria and England & Wales, however, also retain those samples. The samples of convicted offenders are in most Member States being retained for a certain period. This period varies from twenty years after the expiry of the sentence in Hungary to ten years after the offender has deceased in Finland. Austria and England & Wales have

55 Ibidem
not set an exact time date whereupon the samples must be destroyed. It can therefore be assumed that they retain the samples indefinitely.

§ 4. Database access

First, we have to distinguish between who has access to the database and what information they have access to. The most important pieces of information which are being kept on the database are of course the DNA profiles themselves. Besides the DNA profiles, however, other data is stored that could be regarded as highly personal. Although varying a bit from Member State to Member State, most forensic DNA databases contain data like the name, birth date and address of the individual, gender and ethnic appearance (England & Wales), information on the case which made the creation of the profile necessary, the judicial authorities which are involved in the case, the person who took the sample, the laboratory which processed the sample, test type, etc.

Together, these data reveal a lot of personal information on an included individual. It therefore seems appropriate that only authorised persons should be allowed to access this information. In practice, most Member States meet this requirement by drawing up a list of persons or organisations that have access rights. Leaving aside the question whether these rules are indeed observed, some discussion may however arise on the question whom precisely should be included in this list. Should this information only be available to judicial officials who can possibly pass it on to the police or should police officials have direct access themselves? If we opt for this second possibility, should all police officers have access to the information or only superiors? Should the laboratory staff have access to the all information or only to some parts of it? There are indeed different possibilities open and it can be observed that almost every Member State has in fact installed its own database access policy. Although every policy has its advantages and disadvantages, it seems however plausible that the chances of abuse of the information contained in the database increase with the number of persons who have access to it. It therefore seems recommendable that only those persons who have a direct interest in the information on an individual should have access to that particular file.
§ 5. Exchange of DNA information within the EU

As most EU Member States have currently established a national forensic DNA database, the most recent developments in the field are directed towards international collaboration. The creation of an internal market and the gradual political integration of the EU Member States have in the last decades gradually been supplemented by a relaxation of border restrictions. This has not only facilitated economic activities and travelling from one Member State to another, but on the other hand also increased the opportunities for cross border crimes. The gradual abolition of controls on persons at internal borders has not only been followed by an intensification of international drug trafficking and of the circulation of organised crime, but has also facilitated terrorist activities. Although the latter has been a problem for some years now (i.e. IRA, ETA, FIS etc.), the events of 9/11 and its aftermath have brought the problem back to the centre of public and political attention.

The leading discourse holds that these old and new forms of crime can only be successfully fought if the Member States establish common organisational structures with extended competences, as well as institutionalised opportunities for data exchange. Both demands have indeed gradually been met over the past couple of years. We have not only witnessed the birth of organisations like Europol, FRONTEX, Eurojust and the EMCDDA, but also that of international information exchange systems like the Schengen Information System (SIS) and Eurodac, the computerized fingerprint identification system for asylum seekers within the EU.

---

56 European Agency for the Management of Operational Cooperation at the External Borders.
57 European Monitoring Centre for Drugs and Drug Addiction.
58 The SIS was originally intended to ensure effective entry controls at Schengen external borders, but now has gradually developed into a general law enforcement instrument. It contains information on persons who are not allowed to enter the Schengen territory, on wanted persons and on stolen and missing objects. Although these structures have already proven their worth in the fight against cross border crime, better results could probably be achieved though if they would be given more competences. As they have only limited possibilities to collect data on their own, they are still too dependent on national authorities for the provision of the necessary data.
In the forensic field, at least since the late eighties scientists are aware that some sort of technological harmonisation should be reached in order to create the possibility to exchange results of DNA profiling between different countries. Therefore, scientists from all the major European forensic laboratories started to meet regularly and eventually established the European DNA profiling group (EDNAP). Harmonization of the techniques used for DNA profiling is however not the only challenge to be met. Exchange of DNA profiles is only possible if the Member States are prepared to establish institutional structures which could act as an intermediary between their police services. The creation of such a platform is however rendered more difficult by the diverse rules that the Member States use for the management of their databases. While some Member States apply very broad entry criteria, others only enter DNA profiles in precisely described circumstances. England & Wales, for example, allow, as we have seen, for the entry of profiles taken from individuals that are arrested of any recordable offence, whereas The Netherlands only enters the profiles of those suspects charged with an offence which could possibly lead to a prison sentence of four years or more and Belgium does not even include suspects in its database. This would mean that in case of an exchange of profiles between England & Wales and Belgium, the Belgian police could search for a match between their unidentified stains and DNA profiles of English & Wales citizens who were once arrested but not convicted, whereas the English & Wales police could only try to search for a match between its unidentified stains and individuals who were once convicted for committing a serious offence in Belgium. Because such disproportionate criteria will probably lead to a disproportionate contribution of the various Member States, cooperation between them would be built on a more solid basis when some sort of harmonization of the Member States’ legislation concerning database management is achieved.

The EU Council has acknowledged this need for further cooperation between its Member States in its Resolutions of June 1997 and June 2001 on the exchange of the results of DNA analysis. In these

60 See footnotes no. 43 and no. 44.
Resolutions, the EU Council has recommended that the EU Member States should make an effort to establish compatible forensic DNA databases. The 1997 Resolution also mentioned that the creation of a central European DNA database should be considered as a future step in this process towards compatibility. However, the fact that this passage was removed in the 2001 version of the Resolution indicates that this intention was probably too ambitious at the time. In the *Hague Programme* of 2005, the EU Council has renewed its call for extensive cooperation in the field of criminal prosecution by stressing the importance of the principle of *availability*. With this principle is meant that the EU Member States should establish an information network that allows law enforcement officers from the different EU Member States to access each others data. The signing of the *Convention of Prüm*[^61] in 2005 can be considered as an important step in the direction indicated by the Hague Programme. This Convention allows its contracting partners to have automatic access to each others databases of vehicle registration, fingerprints and DNA profiles. Furthermore, it regulates the exchange of data on potential terrorists and hooligans. The exchange of the DNA profile information is based on what is called a ‘hit/no hit’ system. When a partner loads an unidentified profile into the data system of a contracting partner, he will be automatically informed of the result within a few minutes. Because there are strict data protection measures built in into the system, the demanding partner will only be informed on whether a hit has been established or not. Personal information can still only be obtained through bilateral communication. Seven EU Member States originally signed the Convention. In the meantime another seven Member States – Finland, Italy, Slovenia, Portugal, Sweden, Romania and Bulgaria – have signed the convention and Slovakia has declared the intention to do so in the near future. Germany, Austria, Belgium, Luxemburg and Spain have also ratified the Convention. The 2007 German Presidency of the EU, together with the European Commission is also pushing towards the integration of the Convention of Prüm into the legal framework of the EU. By creating an automatic data exchange

system, all EU Member States’ law enforcement agencies would be connected without having to establish a centralised European database. This could probably convince the Member States who are not eager to shut down their own national database in favour of a Pan-European database.

Although there indeed does not seem to be much support in favour of the creation of a central European database, such supranational DNA profile collections do already exist. Both Interpol and Europol offer their members the opportunity to submit DNA profiles that they then can enter into their respective databases. We should however mention that these databases operate in a different way than those that are operated by national states. As Interpol does not have the authority to analyse the information they receive, their database rather has to be considered as some sort of information gateway between national law enforcement agencies. The fact that they have such restricted competences probably explains why the input of profiles has been rather limited so far. The database is not used by all member states because many states are reasoning that Interpol’s database does not really offer a surplus value for the bilateral exchange of data which up till today is still considered the most effective international communication channel.

Europol’s collection of DNA profiles, on the other hand, is also very different from those of the Member States. The DNA profiles do not make up a database of their own, but are considered as just one particular identification tool amongst fifty-three others such as ethnic origin, religious believe, various physical characteristics and financial situation of an individual. Europol’s collection of DNA profiles is not very extensive and because they do not carry out speculative searches between newly received unidentified profiles and their existing collection of profiles, it seems highly unlikely that Europol will become the central gateway for profile exchange within the EU in the near future.
The following overview of the current forensic DNA database management policies in the EU is based on the one hand on the results from literature research and the investigation of existing national laws, where available, and on the other hand on the information retrieved from contact persons in various Member States, either in a university setting or in forensic divisions of the police.

In accordance with the issues which we have discussed in the preceding paragraphs, each country-report contains five subdivisions: sample collection, entry criteria, removal criteria, sample retention, database access and international exchange of the DNA profiles.

There is clearly an imbalance regarding the amount of information we have gathered on the various Member States. Some Member States such as Belgium, The Netherlands, Germany and France are heavily covered, while the description of others, such as the Scandinavian and Baltic Member States, are less detailed. There are multiple reasons for this, the most important being that for the former countries we could dispose of the relevant legislative document. This does not mean that there is no legal framework in the other Member States, but merely that due to linguistic limitations we were not able to comprehend the relevant official documents. For the covering of these Member States, we were to a great extent dependent on the information which was delivered to us by various contact persons.

A number of Member States have not yet enacted specific legislation and therefore do not have a forensic DNA database. However, as all of them do use forensic DNA profiling techniques, we have tried to supply as much information on the current situation as possible. The absence of a specific legal framework means that the current practices are mostly based in a loose way on more general legislation such as police acts, codes of criminal procedure and the like. As a result, the description of these Member States’ situation is entirely based upon the information which was delivered to us by local contact persons.
Bulgaria, Romania and Slovenia are totally absent from this overview. This does not mean that they do not have a forensic DNA database or that they do not use DNA profiling techniques, but merely that we were not able to gather information on the current situation of these Member States. During the past few months we have tried to contact both university departments and police services in these countries, but we did not get any reply. As we are planning to regularly update the information on the forensic DNA database policies, we hope we will be able to supply the information on these three countries in the near future.
§ 1. Austria

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **1st October 1997**
- Size of the database:
  - Identified profiles: **ca. 94,500**
  - Unidentified crime scene stains: **ca. 25,000**
- Database custodian: **Ministry of the Interior (BMI)**
- Relevant national legislation: **Federal law regarding the organization of the security management and the practices of the state police (state police law – SPG), BGBL No. 566/1991 as published in BGBL. I No. 151/2004.**
- Structure of the database: **Database: Microsoft SQL. Enquiry and Match tool: self developed program ++ with C.**

A. Sample collection

Law enforcement officers have the authority to coercively collect a DNA sample from convicted offenders and from persons who are suspected of having committed a ‘serious offence’. They are also allowed to collect a DNA sample from minors and mentally ill persons.

B. Entry criteria

DNA profiles of crime suspects can be entered when they are suspected of having committed an offence that is classified in law as a ‘serious offence’. There are no restrictions to the entry of convicted offenders’ DNA profiles and DNA profiles that are derived from unidentified crime scene stains.

---

62 Personal communication of the Austrian Bundeskriminalamt [Federal Criminal Investigation Department].
C. Removal criteria

The DNA profiles that are derived from unidentified crime scene stains are stored in the database until the corresponding case is solved. Crime suspects’ DNA profiles are removed from the database when the suspect is acquitted. As an additional requirement, the individual has to submit a written application to the BMI. The DNA profiles of convicted offenders are retained indefinitely.

D. Sample retention

Crime suspects must apply for sample destruction upon their acquittal. Otherwise, their sample is retained. The DNA samples of convicted offenders have to be destroyed when the person concerned has reached the age of eighty years. DNA samples of minors must be destroyed 3 years after collection.

E. Database access and international exchange of the DNA profiles

The staff members of the forensic institutes of Innsbruck, Salzburg and Vienna only have access to the DNA profile values and a reference number. Judicial authorities have full access rights and can therefore also consult personal information. The legal basis for the international exchange of DNA profiles can be found in both the Police Cooperation Law and the Data Protection Law. DNA profiles are exchanged through Interpol but because Austria has signed and ratified the Convention of Prüm, it also has automatic access to the forensic DNA databases of its contracting partners.
§ 2. Belgium

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **1999**
- Size of the database:
  - Identified profiles: **ca. 9,287**
  - Unidentified crime scene stains: **ca. 10,888**
- Database custodian: **National Institute for Criminalistics and Criminology (NICC)**
- Relevant national legislation:
  - *Law of 22 March 1999 regarding the identification procedure by DNA analysis in penal matters, Law on Criminal Proceedings*
- Structure of the database: **CODIS: SQL Server 2000**

A. Sample collection

During police investigation, consent of the suspect is required in order to obtain a tissue sample.\(^{63}\) This can only be requested on condition that human cells were found at the crime scene and only in cases where the suspect has reached the age of eighteen years. Furthermore, the prosecutor has the obligation to inform the suspect about the full procedure. He also needs to inform the suspect that in case of a positive match between his sample and the sample that is found at the crime scene, his DNA profile can also be compared with samples that were found in other criminal cases.

During judicial investigation, on the other hand, the examining magistrate has the authority to order the coercive taking of a DNA sample from the suspect if the penalty for the criminal offence he is possibly involved in implies a prison sentence of five years or more.\(^{64}\) In order to start this procedure, he has to have sufficient indications.

---

\(^{63}\) *Law of 22 March 1999 regarding the identification procedure by DNA analysis in penal matters*, art. 2, §3.

\(^{64}\) Idem, art. 5, §1.
that the suspect is directly involved in the case and some traces of human material have to been found and stored. Unidentified crime scene stains can only be collected by order of the prosecutor.\textsuperscript{65} The latter’s decision has to be well-founded in order to start this procedure.

B. Entry criteria

The law of March 22, 1999 regarding DNA analysis in criminal cases allowed for the creation of two distinct forensic DNA databases which from then on were to be managed by the NICC\textsuperscript{66}. The criminalsistics database contains DNA profiles which are retrieved from biological material found at crimes scenes.\textsuperscript{67} These profiles can only be created when a solicitor gives his explicit permission to do so. The forensic expert who is charged with the task of collecting the biological material has to make sure that he collects sufficient biological material in order that a counter-enquiry might be possible. The convicts database contains the DNA samples of individuals who are convicted for certain criminal offences (mainly offences in which the physical integrity of the victim is violated such as rape and murder).\textsuperscript{68} Convicts should always be informed that their DNA profile is stored in the database and that their profile can be compared with DNA profiles that were found in other criminal offence cases. There is no suspect database.

C. Removal criteria

The public prosecution office can order the removal of the profiles from the criminalsistics database when they do not longer consider the storage useful for future acts of investigation.\textsuperscript{69} The removal is obligatory after a period of thirty years in cases where the stored profiles could not be identified. When identification of a profile was

\textsuperscript{65} Law on Criminal Proceedings, IV (2): art. 44, §2.

\textsuperscript{66} Nationaal Instituut voor Criminalistiek en Criminologie [National Institute for Criminalistics and Criminology].

\textsuperscript{67} Law of 22 March 1999 regarding the identification procedure by DNA analysis in penal matters, art. 4, §1.

\textsuperscript{68} Idem, art. 5, §1.

\textsuperscript{69} Idem, art. 4, §4.
possible, on the contrary, its removal is obligatory when the courts’ ruling in the case can no longer be appealed. The DNA profiles which are stored in the *convicts* database have to be destroyed ten years after the passing away of the individual whose profile is contained in the database.70

D. Sample retention

The samples of crime suspects have to be destroyed once the public prosecution office has made sure that a counter-enquiry is not going to be performed or if the results of a counter-enquiry have been communicated to the suspect who has ordered it.71 The samples which are taken from convicted offenders must be destroyed immediately after their profile is created and stored in the *convicts* database.72

E. Database access and international exchange of the DNA profiles

When a match is found between a DNA profile that is derived from a crime scene sample and a DNA profile from the database and a positive match is established, only the public prosecution office and the examining magistrate are to be informed about the identity of the person in question.73

The people who have access to the information on the database include the manager that is responsible for the database within the NICC, certain other members of the NICC, the public prosecutor and the examining magistrate. They have access to the record number of the criminal file, the name of the magistrate who ordered the establishment of the DNA profile and its file number, details of the laboratory that analyzed the DNA sample, the sex of the person and the code number allocated by the magistrate linking the DNA profile to the person concerned. To ensure that the legally protected privacy measures are being met, an expert of the NICC is entrusted with the

70 Idem, art. 5, §5.
71 Idem, art. 2, §5.
72 Idem, art. 5, §2.
73 Idem, art. 4, §3.
task of the implementation and safekeeping of the regulations that are imposed by the Commission for the protection of the privacy. 74
Although there is no specific national legislation regarding the international exchange of DNA profiles, exchange with other EU Member States is possible. Exchanges are made through Interpol or rogatory letters, but always under the authority of the federal magistrate. Belgium has signed and ratified the Convention of Prüm. Therefore Belgium has automatic access to the forensic DNA databases of the other contracting parties.

74 Idem, art. 7.
§ 3. Cyprus

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **1998**
- Size of the database:
  - Identified profiles: **ca. 520**
  - Unidentified crime scene stains: **ca. 1,300**
- Database custodian: **Cyprus Police Headquarters in close collaboration with the Laboratory of Forensic Genetics of the Cyprus Institute of Neurology and Genetics**
- Relevant national legislation: **Police Act, Personal Data Protection Act**

A. Sample collection

The police can only coercively sample a crime suspect upon court order. Otherwise, written consent of the suspect is needed. A sample can be taken from a convicted offender as soon as he has been sentenced. There are no restrictions to the collection of crime scene stains.

The police are allowed to take a sample from minors if the legal guardian consents or upon court order. In the latter case, the court shall take the legal guardian’s position and the case circumstances into account. The same requirements are also valid for mentally ill persons with the additional condition that a medical advice is needed.

B. Entry criteria

There are no explicit restrictions to the entry of DNA profiles that are derived from unidentified crime scene stains, crime suspects and convicted offenders.

---

75 Personal communication of Marios A. CARIOLOU, director of the Molecular Genetics Department and the Laboratory of Forensic Genetics of the Cyprus Institute of Neurology and Genetics.
C. Removal criteria

The DNA profiles of crime suspects have to be removed from the database when no charges have been filed or upon acquittal. Convicted offenders’ DNA profiles are retained indefinitely unless the person’s record is cleared according to the Re-establishment Act. The DNA profiles that are derived from unidentified crime scene stains are retained on the database until they are identified.

D. Sample retention

DNA samples of crime suspects can be retained up to the stage of court hearing or until the completion of an investigation. If no charges are filed or the person is not sentenced by the court, the DNA sample has to be removed from the database. The DNA samples of convicted offenders are retained indefinitely unless the person’s record is cleared according to the Re-establishment Act.

E. Database access and international exchange of the DNA profiles

The Director of the Laboratory of Forensic Genetics and staff members at the director’s direction have access to the genetic profiles, sample numbers, date of entry of the profiles and the DNA samples. DNA profiles can be exchanged with other EU Member States through Interpol contact points. It is currently not possible to exchange the DNA profiles electronically.
§ 4. Czech Republic

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **2001**
- Size of the database:
  - Identified profiles: **ca. 12,639**
  - Unidentified crime scene stains: **ca. 4,740**
- Database custodian: **Institute of Criminalistics (department of genetics), under the authority of the Czech police.**
- Relevant national legislation: **Police Act, Police President Binding Instruction No. 88/2004**
- Structure of the database: **CODIS version 5.7**

In the absence of specific legislation, the creation of the Czech forensic DNA database is based upon common regulation which allows the police to retain important pieces of evidence. The functioning of the database is based upon Police President Binding Instruction No. 88/2004 which is legally inadequate with regard to personal data protection.\(^ {76} \)

Unidentified crime scene stains are retained until a match is made. The DNA profiles of crime suspects are not retained. However, the police are allowed to load suspects’ DNA profiles onto the database and search for a match.

The DNA profiles of convicted offenders can be stored for eighty years.\(^ {77} \) There is no legislative provision that would allow for the retention of DNA samples. Therefore, they usually follow the fate of the DNA profiles.

---

\(^{76}\) Personal communication of Lukas PRUDIL (Department of Social Medicine and Health Care Administration, Masaryk University, Brno) and Zdenek KREJCI (Czech police).

§ 5. Denmark

A. Sample collection

Law enforcement officers have the authority to collect DNA samples from unidentified crime scene stains, convicted offenders and crime suspects. They can also collect a DNA sample from minors and mentally ill persons.

B. Entry criteria

There are no restrictions to the entry of DNA profiles that are derived from unidentified crime scene stains and of convicted offenders. DNA profiles of crime suspects, on the other hand, can only be entered into the database when they are charged with a crime that could lead to a prison sentence of one and a half years or more.

C. Removal criteria

The DNA profiles that are derived from unidentified crime scene stains can only be removed from the database when the case has reached the prescription term as laid down in the Danish Penalty Act. Convicted offenders’ and crime suspects’ DNA profiles must be

---

78 Personal communication of the Forensic Department of the Danish Police.
removed from the database two years after the passing away of the person concerned or when he reaches the age of eighty years.

D. Sample retention

 There is no explicit legal basis for the retention of the various DNA samples. Therefore, they usually follow the fate of the DNA profiles.

E. Database access and international exchange of the DNA profiles

The police, the prosecutor, the Ministry of Justice, members of the forensic department (University of Copenhagen) and the ombudsman of the parliament have access to all the relevant personal information that is connected to the various DNA profiles.

The DNA profile information can be exchanged with other EU Member States through Interpol.
§ 6. Estonia\textsuperscript{79}

### General Characteristics of the DNA database

- National DNA database: YES
- Date established: 2004
- Size of the database:
  - Identified profiles: \textbf{ca. 15,096}
  - Unidentified crime scene stains: \textbf{ca. 5,533}
- Database custodian: \textbf{Forensic Service Centre}
- Structure of the database: CODIS

A. Sample collection

The police have the authority to coercively take a DNA sample from crime suspects and convicted offenders. There are no restrictions to the collection of crime scene stains.

The police are allowed to take a DNA sample from minors. The law does not stipulate whether a DNA sample may be taken from mentally ill persons.

B. Entry criteria

The DNA profiles of crime suspects and convicted offenders can be entered into the database when they are suspected or convicted of any recordable offence.

\textsuperscript{79} Personal communication of the Estonian Bureau of Forensic Medicine.
There are no restrictions to the entry of DNA profiles which are derived from unidentified crime scene stains.

C. Removal criteria

The DNA profiles of crime suspects and convicted offenders have to be removed from the forensic DNA database ten years after the passing away of the person concerned.

The DNA profiles that are derived from unidentified crime scene stains have to be removed seventy-five years after their entry.

D. Sample retention

Although there are no regulations regarding the DNA samples that are collected, they are being retained.

E. Database access and international exchange of the DNA profiles

Scientists and laboratory personnel have access to all data on the DNA samples, DNA profiles and the matches which are established.

The DNA profile information can be exchanged with other EU Member States through Interpol.
§ 7. Finland

General Characteristics of the DNA database

- National DNA database: YES
- Date established: 1st September 1999
- Size of the database:
  - Identified profiles: ca. 49,060
  - Unidentified crime scene stains: ca. 8,647
- Database custodian: Crime laboratory of the National Bureau of Investigation (NBI).
- Structure of the database: CODIS

A. Sample collection

The Coercive Measure Act allows for the coercive taking of a DNA sample from crime suspects when the crime carries a term of imprisonment that is longer than six months. Since 1st January of 2007, an amendment to the Coercive Measure Act also allows for the coercive taking of a DNA sample from convicted offenders. DNA samples which are found at crime scenes can also be collected.

The taking of a DNA sample from a minor is allowed when this is deemed necessary for the investigation of a crime. Samples of minors who have not reached the age of fifteen years, however, cannot be entered into the database. The police can also take a DNA sample from mentally ill persons, but only when they are suspected or convicted of a criminal offence.

B. Entry criteria

The DNA profiles of crime suspects can be entered into the database when the crime under investigation could possibly lead to a prison

---

80 Personal communication of the Finnish National Bureau of Investigation.
sentence of six months or more. The DNA profiles of convicted
offenders, on the other hand, can be entered into the database when
they are sentenced to three years in prison or more, or when they are
taken to a mental hospital for coercive treatment.
DNA profiles which are derived from crime scene stains are also
entered into the database.

C. Removal criteria

The DNA profiles of suspects must be removed from the database
within the year starting from the moment the prosecutor has made sure
that there is no evidence of an offence, when charges are dismissed or
when the sentence has been nullified. When they are not removed
earlier, they must in any case be removed ten years following the
passing away of the person.
Convicted offenders’ DNA profiles must also be removed ten years
following the passing away of the person.
There is no time limit set for the retention of DNA profiles that are
derived from unidentified crime scene stains.

D. Sample retention

The regulations regarding the retention of DNA profiles of crime
suspects and convicted offenders are also valid for the corresponding
DNA samples.

E. Database access and international exchange of the DNA profiles

The database managers and the reporting scientists have access to the
DNA profile itself, information regarding the crime cases and the
names and social security codes of the included persons.
Finland exchanges its DNA profiles through Interpol.
§ 8. France

General Characteristics of the DNA database

- National DNA database: YES
- Date established: 1998
- Size of the database:
  - Identified profiles: ca. 119,612
  - Unidentified crime scene stains: ca. 8,202
- Database custodian: Central board of the judicial police, under the authority of the ministry of home affairs
- Relevant national legislation:
- Structure of the database: Oracle

A. Sample collection

The coercive taking of an (oral) tissue sample is allowed when the person concerned is sentenced for an offence that is punished by ten years’ imprisonment. A written order of the district prosecutor is however necessary. For all other situations, the law does not explicitly mention whether consent is necessary or not. The Code of Criminal Procedure, however, mentions that a person who refuses to cede a tissue sample is to be punished by a year’s imprisonment and a fine of 15000€ when it concerns a suspect of a crime and two year’s imprisonment and a fine of 30000€ when it concerns a convicted offender. This means that although one cannot be forced to allow a tissue sample to be taken, refusal is not a viable option either.

Before sampling is carried out, a judicial police officer is authorized to check whether the genetic profile of the person is not already stored in

82 Idem, §2.
the FNAEG\textsuperscript{83}. This may however only be done in order to retrieve the civil status of the person in question. When it is not possible to take a sample from one of the categories of persons mentioned above, the profiling may be carried out using any biological material that may have detached itself naturally from the body.\textsuperscript{84} The underlying rationale is that one does not need to be given consent when collecting detached biological material.

B. Entry criteria

The DNA profiles of convicted offenders are entered into the FNAEG when they are convicted for one the following crimes (amongst a few other): sexual offences, crimes against humanity, intentional attacks on human life, torture and acts of barbarity, intentional violent acts, drug trafficking, offences against human liberty, human trafficking, procuring, the exploitation of begging, endangerment of minors, felonies which constitute theft, extortion, fraud, destruction and threats to attack property, violations of the fundamental interests of the state, terrorist acts, and forging currency.\textsuperscript{85} The DNA profiles of suspects against whom there is serious or corroborating evidence rendering it likely that they have committed one of the above enumerated crimes are also stored in the FNAEG.\textsuperscript{86} This procedure can be started by order of a judicial police officer, either autonomously or at the request of the district prosecutor or the examining magistrate. The DNA profiles that are derived from unidentified crime scene stains can be stored when they are considered relevant for the investigation into causes of death or searches into the causes of disappearances.\textsuperscript{87}

C. Removal criteria

\textsuperscript{83} Fichier national automatisé des empreintes génétiques [Automated national database of genetic fingerprints]
\textsuperscript{84} Code of Criminal Procedure, IV (10): art. 706-56, §1.
\textsuperscript{85} Idem, art. 706-55.
\textsuperscript{86} Idem, art. 706-54.
\textsuperscript{87} Ibidem
The DNA profiles of crime suspects can be removed from the FNAEG when storing them seems no longer necessary given the purpose of the file. This is the case when there is no evidence that the suspect is involved in an offence or when he is not convicted. This procedure can be only started by the district prosecutor, either upon his own initiative or at the request of the person involved. When the latter is the case, the district prosecutor has to inform that person on the outcome of his request. In case of a negative outcome, he can transfer his case to the liberty and custody judge, whose decision in turn can be appealed before the president of the investigating chamber. Convicted offenders’ profiles are removed from the database forty years after their final sentence has been passed or when they reach the age limit of eighty years. DNA profiles which are derived from unidentified biological material are removed forty years after analysis.

D. Sample retention

The regulations regarding the retention of DNA profiles of crime suspects and convicted offenders are also valid for the corresponding DNA samples.

E. Database access and international exchange of the DNA profiles

The staff of the SCPPB has access to all data except genetic information. Judicial police officers have only access to the identity, place of birth and the date of birth. Judicial police officers and magistrates are also informed on the matches that might be found in the database. DNA profiles can be exchanged with the other EU Member States through Interpol or rogatory letters on the condition of legal compatibility. As France has signed the Convention of Prüm, it will have automatic access to the database of its contracting partners in the near future.

88 Idem, art. 706-54.
§ 9. Germany

General characteristics of the database

- National DNA database: YES
- Date established: 1998
- Size of the database:
  - Identified profiles: ca. 453,600
  - Unidentified crime scene stains: ca. 106,700
- Database custodian: Bundeskriminalamt Wiesbaden (BKA)
- Relevant national legislation: Law on criminal proceedings (Strafprozessordnung), Law on the data of DNA analysis (Errichtungsordnung DNA-anlyse Datei) and Law of September 10 2005 on the Federal Criminal Investigation Office (BKA-Gesetz).
- Structure of the database: Oracle

A. Sample collection

The German Criminal Procedure Code (Strafprozessordnung) allows for the taking of blood samples and other biological material from crime suspects without their consent when this act is considered necessary for the investigation. The authority to start such procedure is vested in a judge. If this procedure could possibly lead to a delay that could endanger the success of the investigation, the public prosecution office may also order such a procedure. For all other situations, consent of the suspect is necessary.\textsuperscript{89} Consent is usually needed in order to take a DNA sample from a convicted offender. Coercive sampling can only be ordered by a judge and only when it concerns an individual who is convicted for a sexual offence or another serious offence and when it is very likely that the convicted person will commit a similar offence in the future. Individuals who repeatedly commit the same minor offence will be treated as if they have committed a serious offence.\textsuperscript{90} The taking of a sample from third persons such as witnesses without their consent is only admissible if this measure is considered

\textsuperscript{89} Code of Criminal Procedure, § 81a: 1-3.
\textsuperscript{90} Idem, § 81g: 1.
indispensable for establishing the truth. Again, this procedure can only be started by courtesy of a judge or, on the above described conditions, by the public prosecution office. Although this may be refused for the same reasons as a testimony may be refused, the judge can allow the use of direct force in order to gather a sample. This can only be done when the individual insists on the refusal despite the imposition of a coercive fine or when there are exigent circumstances.91

A DNA sample may be taken from minors (14-17 years), but normally only upon their legal guardians’ consent. A DNA sample may be taken from a mentally ill person if it is very likely that this person will commit a similar offence in the future.92

B. Entry criteria

The German forensic DNA database is governed by the Bundeskriminalamt (BKA). The DNA profiles that are derived from unidentified crime scene stains can be entered into the database if they are possibly related to any recordable offence.93 Crime suspects’ DNA profiles can only be entered into the database when they are possibly involved in a serious criminal offence or when they are suspected to commit a serious offence in the future.94 Entry of the profiles of convicted offenders is allowed when they are irrevocably sentenced for a serious criminal offence. Since 2005, DNA profiles of offenders who are sentenced for repeatedly committing the same ‘minor offence’ can also be entered into the database.

The DNA profiles of individuals who are not irrevocably sentenced due to irresponsibility and whose files are not removed from the Bundeszentralregister [federal central register] or the Erziehungsregister [register of upbringing], can also be entered into the DNA database.95

91 Idem, §81c: 1-6.
92 Personal communication of the Bundeskriminalamt [Federal Criminal Investigation Department].
93 Idem
94 Errichtungsordnung DNA Analyse Datei, Art. 2.2, §3: a-b.
95 Idem, art. 2.2, § 3: c.
C. Removal criteria

Unidentified DNA profiles must be removed from the database at the latest after thirty years, but most of the crime scene stains are removed after ten years. Only a few will be never removed, or only when the related crime is solved (e.g. murder, genocide).

Regarding the DNA profiles of convicted offenders, the law stipulates a certain period after which shall be decided whether the profiles shall be removed from the database or not. This period is five years for minors and ten years for adults. Counting starts the moment the sentence has passed.

The DNA profiles of crime suspects are removed from the database when retaining them seems no longer necessary or deemed inappropriate. This is the case when the suspect is acquitted, the case is dismissed, prosecution is aborted or when it is believed that the person will not commit a serious offence in the future.

D. Sample retention

Only unidentified DNA samples can be retained for further purposes (e.g. follow-up analysis). If they are no longer necessary for the criminal proceeding, DNA-samples of known persons must be destroyed immediately after analysis.

E. Database access and international exchange of the DNA profiles

Officials of the BKA and the Central Investigation offices of the sixteen Federal States have direct access to the database. Public prosecution services can also be provided with data from the database for criminal justice purposes. Authorized persons have access rights to all the data contained in the database: police service concerned and its reference number, criminal offence, laboratory charged with the examination and its reference number, formula for making the data anonymous and unique identification number of the data set, personal

96 Personal communication of the Bundeskriminalamt [Federal Criminal Investigation Department].
97 Idem.
98 Idem.
data of known individuals and identification number of the data recorded. DNA profiles can be exchanged with the other EU Member States through Interpol. As Germany has signed and ratified the Convention of Prüm, it has automatic access to the database of its contracting partners.
§ 10. Greece

### General Characteristics of the DNA database

National DNA database: NO

Although there is currently no national forensic DNA database in Greece, the police do use DNA profiling techniques to verify the identity of individuals. The legal basis for forensic DNA profiling is the Code of Penal Procedure. Unidentified crime scene stains can be retained, but not the DNA profiles of crime suspects and convicted offenders.

---

99 Personal communication of Takis VIDALIS (Hellenic National Bioethcis Commission).
\section*{\textbf{§ 11. Hungary}}

\begin{center}
\fbox{
\begin{tabular}{|l|}
\hline
\textbf{General Characteristics of the DNA database} \\
\hline
\begin{itemize}
\item National DNA database: \textbf{YES}
\item Date established: \textbf{2004}
\item Size of the database: \\
\hspace{1cm} Identified profiles: \textbf{ca. 45,744}
\hspace{1cm} Unidentified crime scene stains: \textbf{ca. 404}
\item Database custodian: \textbf{Central Bureau for Administration and Electronic Services, in co-operation with the Institute for Forensic Sciences. The former operates under the authority of Prime Minister’s Office, the latter under the authority of the Ministry of Justice and Law Enforcement.}
\item Relevant national legislation: \textbf{Act of 1999 on Criminal Records.}
\item Structure of the database: \textbf{CODIS version 5.7}
\end{itemize}
\hline
\end{tabular}}
\end{center}

A. Sample collection

A DNA sample can be taken from crime suspects, convicted offenders, minors and mentally ill persons. There are no restrictions to the collection of unidentified crime scene stains.

B. Entry criteria

DNA profiles of crime suspects are retained when they are possibly involved in a crime which could result in a prison sentence of at least five years or when they are possibly involved in one of the offences which are listed in the law (e.g., offences related to international criminal activity, violent offences against sexual morals, offences committed against children under fourteen years old, offences committed in series or organized form, etc.).

\footnote{Personal communication of Janos WOLLER (Institute for Forensic Sciences, Budapest).}
The DNA profiles of convicted offenders are retained upon conviction for one of the above mentioned crime categories. There are no restrictions to the entry of DNA profiles which are derived from unidentified crime scene stains.

C. Removal criteria

DNA profiles which are derived from unidentified crime scene stains are removed from the database when the prescription term for the related crime is reached. DNA profiles of crime suspects must be removed upon abandonment of the proceedings or upon acquittal. Convicted offenders’ DNA profiles must be removed twenty years after the passing of the sentence.

D. Sample retention

All regulations regarding the entry and removal of the DNA profiles are also valid for the DNA samples from which they were derived.

E. Database access and international exchange of the DNA profiles

Domestic courts, the public prosecutor’s office, investigating authorities and national security services have full access rights to the information on the database. The International Law-enforcement Cooperation Centre and other bodies of the Republic of Hungary that are authorized by international conventions to process and disclose data to foreign bodies have access to the information on the database too. Citizens shall be informed, at their request, of the data held and processed in the database related to them. Database administrators have access to the information that is relevant for the execution of their duties. DNA profiles can be exchanged with the other EU Member States through Interpol.
CURRENTLY, THE REPUBLIC OF IRELAND DOES NOT HAVE A NATIONAL FORENSIC DNA DATABASE. HOWEVER, THE CRIMINAL JUSTICE (FORENSIC SAMPLING AND EVIDENCE) BILL 2007, WHICH DEALS WITH THE CREATION OF SUCH A DATABASE, SHALL PROBABLY BECOME EFFECTIVE IN THE NEXT FEW MONTHS. MEANWHILE, DNA PROFILING IS USED IN PARTICULAR CRIMINAL INVESTIGATIONS. THE LEGAL BASIS FOR DNA PROFILING IN THE REPUBLIC OF IRELAND IS THE CRIMINAL JUSTICE (FORENSIC EVIDENCE) ACT (1990). THE STATUTORY PROCEDURE OF DNA SAMPLING IS SET OUT IN SECTION 2. IN ORDER TO LAWFULLY COLLECT A DNA SAMPLE FROM A CRIME SUSPECT, MEMBERS OF THE GARDA SIÓCHÁNA MUST TAKE A NUMBER OF STEPS INTO ACCOUNT. A SAMPLE MAY FOR EXAMPLE ONLY BE TAKEN IF A MEMBER OF THE GARDA SIÓCHÁNA OF AT LEAST THE RANK OF SUPERINTENDENT AUTHORIZES IT AND ONLY IF HE HAS REASONABLE GROUNDS TO BELIEVE THAT THE PERSON CONCERNED IS INVOLVED IN A CRIMINAL OFFENCE AND THAT SAMPLING WILL CONFIRM OR DISPROVE THE INVOLVEMENT OF THE PERSON FROM WHOM THE SAMPLE IS TO BE TAKEN. FURTHERMORE, SAMPLING CAN ONLY BE PERFORMED IN A CASE WHERE THE PERSON CONCERNED IS IN CUSTODY OR IN A PRISON UNDER THE PROVISIONS OF SECTION 30 OF THE OFFENCES AGAINST THE STATE ACT (1939) OR SECTION 4 OF THE CRIMINAL JUSTICE ACT (1984). A SAMPLE MAY ONLY BE TAKEN BY A REGISTERED MEDICAL PRACTITIONER AND ONLY UPON “APPROPRIATE” CONSENT OF THE PERSON CONCERNED. THIS MEANS Plainly the consent of this person when he has attained the age of seventeen years, the consent of this person and of a parent or legal guardian when he has not attained the age of seventeen years but has attained the age of fourteen years and only the consent of a parent or legal guardian when this person has not attained the age of fourteen years.


The destruction of DNA profiles and DNA samples is laid down in section 4. When proceeding for an offence as described in section 30 of the *Offences against the State Act (1939)* or section 4 of the *Criminal Justice Act (1984)* are not instituted within 6 months, the DNA profile and DNA sample of the person must be destroyed on the expiration of that period. When this person concerned is acquitted or discharged or the proceedings are discontinued, his DNA profile and DNA sample must be destroyed within twenty-one days. However, when the Director of Public Prosecutions can present good reasons why certain DNA samples and profiles should not be destroyed, a court can decide to retain them for a period which it has set out.
§ 13. Italy\textsuperscript{103}

<table>
<thead>
<tr>
<th>General Characteristics of the DNA database</th>
</tr>
</thead>
<tbody>
<tr>
<td>National DNA database: NO</td>
</tr>
</tbody>
</table>

Although there is currently no Act that allows for the creation of a forensic DNA database, the Italian police do collect DNA samples. Crime scene stains can be collected with the permission of a judicial official. The taking of a DNA sample from a crime suspect is only allowed upon his consent. Upon consent of both parents, the police are also allowed to take a DNA sample from minors. A DNA sample from a mentally ill person can be taken upon the consent of the legal guardian.

As there is no statutory regulation regarding the retention of DNA profiles, the current practice of the Italian police to store the DNA profiles that are derived from unidentified crime scene stains and from convicted offenders is probably illegal.

Several proposals for the creation of a forensic DNA database are pending in Parliament of which one is currently being examined by the Ministry of the Interior.

\textsuperscript{103} Personal communication of Vincenzo PASCALI (Institute for Forensic Medicine, Catholic University of Sacro Cuore, Rome).
§ 14. Latvia

A. Sample collection

The police have the authority to coercively take a DNA sample from crime suspects and convicted offenders. There are no restrictions to the collection of DNA samples which are found at crime scenes. The police are allowed to take a DNA sample from minors and mentally ill persons.

B. Entry criteria

There are no restrictions to the entry of DNA profiles which are derived from unidentified crime scene stains. The DNA profiles of crime suspects and convicted offenders can be entered into the database when they are suspected or convicted of any recordable offence.

C. Removal criteria

The DNA profiles of crime suspects are stored in the database for seventy-five years. This provision is also valid for crime suspects who are acquitted. Convicted offenders’ DNA profiles are also stored for 75 years. The DNA profiles which are derived from unidentified crime scene stains are stored in the database until they are identified.

D. Sample retention

All regulations regarding the entry and removal of DNA profiles are also valid for the DNA samples from which they were derived.

E. Database access and international exchange of the DNA profiles

Only members of the State Police Forensic Service Department have full access rights to the information that is stored in the database.

---

104 Personal communication of the Forensic Service Department of the Latvian State Police.
Others, such as law enforcement officials with permission from a prosecutor and judicial authorities, can submit a written request for information. Online access to the database is only possible from within Forensic Service Department. Requests for the international exchange of DNA profiles must pass through the State Police International Cooperation Department.
§ 15. Lithuania 105

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **2002**
- Size of the database:
  - Identified profiles: **ca. 17,619**
  - Unidentified crime scene stains: **2,000**
- Database custodian: **Lithuanian Police Forensic Science Centre (LPFSC).**
- Relevant national legislation: **Code of Criminal Procedure and Police Activity Law.**
- Structure of the database: **Oracle**

A. Sample collection

There are no restrictions to the collection of DNA samples from crime suspects and unidentified crime scene stains. Lithuanian police officers and officers from the Prison department of the Ministry of Justice of the Republic of Lithuania are not allowed to take a DNA sample from convicted offenders. However, if a convicted offender is suspected of having committed any other recordable offence, an officer of the criminal or the local police is allowed to take a DNA sample from the convicted offender. The police are not allowed to take a DNA sample from mentally ill persons.

B. Entry criteria

There are no restrictions to the entry of DNA profiles of crime suspects, convicted offenders and unidentified crime scene stains into the database.

---

105 Personal communication of the Lithuanian Police Forensic Science Centre (LPFSC).
C. Removal criteria

No time limit has been established for the retention of DNA profiles which are derived from unidentified crime scene stains. The DNA profiles of crime suspects and convicted offenders are removed after hundred years after entry or ten years after the passing away of the individual.

D. Sample retention

DNA samples of crime suspects and convicted offenders must be destroyed immediately after they have been analyzed and the related DNA profiles have been stored into the database.

E. Database access and international exchange of the DNA profiles

Authorized database managers and scientists have access to all information contained in the DNA database. Police officers can only check whether a particular person’s profile is included into the DNA database. DNA profiles can be exchanged with other EU Member States through Interpol.
§ 16. Luxemburg

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **November 2006**
- Size of the database:
  - Identified profiles: **no information**
  - Unidentified crime scene stains: **no information**
- Database custodian: **no information**
- Relevant national legislation: **Law of 25 August 2006 regarding the identification procedure by DNA analysis in penal matters, Code of criminal procedure.**
- Structure of the database: **MS SQL server**

A. Sample collection

Only the solicitor and the examining magistrate have the authority to order the taking of a DNA sample from a person in order to create a DNA profile.\(^{106}\) With regard to unidentified DNA stains that are discovered at a crime scene, this may only be done in the course of a criminal investigation.\(^{107}\)

The taking of a DNA sample from a person is performed by means of a buccal swab, the collection of hair shafts or by blood sampling.\(^{108}\) When the person concerned consents to the collection of a sample, he may choose by which method the sample is collected.\(^{109}\) If he refuses to cede a sample, coercive sampling is allowed when there are sufficient indications that he is directly involved in a criminal offence that is punishable by a jail sentence of two years or more.\(^{110}\) In that case, sampling is performed by either the taking of hair shafts or a buccal swab.

\(^{106}\) *Code of criminal procedure*, art. 48-3.
\(^{107}\) Idem, art. 48-3.
\(^{108}\) Idem, art. 48-4.
\(^{109}\) Idem, art. 48-5.
\(^{110}\) Idem, art. 48-5.
If the person concerned has not yet reached the age of fourteen years, written consent of his legal guardian is required in order to collect a sample. Consent of the legal guardian is also required for the taking of a DNA sample from mentally-ill persons.

B. Entry criteria

The DNA profiles of a crime suspects can be entered into the database when they are suspected of any recordable offence. However, an order of the prosecutor or the examining magistrate is required.\footnote{Law of 25 August 2006 regarding the identification procedure by DNA analysis in penal matters, art. 6.} The DNA profiles of convicted offenders can be entered into the database when they are sentenced to imprisonment for one of the crimes listed in the law.\footnote{Idem, art. 8.} The list includes offences like terrorism, murder, the taking of hostages, torture and some forms of theft.\footnote{Code of criminal procedure, art. 48-7.} This can also only be done by order of the solicitor or the examining magistrate.

DNA profiles which are derived from unidentified crime scene stains can be entered into the database by order of the prosecutor, the examining magistrate or a judicial police officer acting by order of one these magistrates.\footnote{Law of 25 August 2006 regarding the identification procedure by DNA analysis in penal matters, art. 6.}

C. Removal criteria

The DNA profiles of crime suspects have to be removed from the database when the person concerned is acquitted or when the prescription term is reached.\footnote{Idem, art. 7.} When the person concerned passes away, his DNA profile must be removed ten years following this occurrence.

The DNA profiles of convicted offenders have to be removed from the database ten years after the passing away of the person concerned.\footnote{Idem, art. 10.}

\footnotetext[111]{Law of 25 August 2006 regarding the identification procedure by DNA analysis in penal matters, art. 6.}
\footnotetext[112]{Idem, art. 8.}
\footnotetext[113]{Code of criminal procedure, art. 48-7.}
\footnotetext[114]{Law of 25 August 2006 regarding the identification procedure by DNA analysis in penal matters, art. 6.}
\footnotetext[115]{Idem, art. 7.}
\footnotetext[116]{Idem, art. 10.}
The DNA profiles that are derived from unidentified crime scene stains have to be removed from the database thirty years after their entry.

D. Sample retention

All regulations regarding the entry and removal of DNA profiles are also valid for the DNA samples from which they were derived.\textsuperscript{117}

E. Database access and international exchange of the DNA profiles

Only members of the DNA unit have access to the database. Magistrates have to submit a request for information to this unit. DNA unit members have access to all the information contained in the database. Every action in the database is logged.\textsuperscript{118}

DNA profile information is exchanged via Interpol, Europol and rogatory letters. Luxemburg has signed and ratified the Convention of Prüm which makes it possible to automatically access the forensic DNA databases of the other contracting parties.

\textsuperscript{117} Personal communication of Christian STEICHEN (Head Chief of Police of the Grand Duchy of Luxemburg).
\textsuperscript{118} Idem
§ 17. Malta 119

General Characteristics of the DNA database

National DNA database: NO

Although there is currently no law that deals explicitly with the forensic use of DNA, the Maltese police do collect DNA samples for forensic purposes. It is presumed that this includes DNA analysis. A judge can also order the taking of a DNA sample for the purpose of paternity testing.

---

119 Personal communication of Pierre MALLIA, director of the Centre for Bioethics at the Medical School of the University of Malta.
§ 18. Poland

The eleven departments of forensic medicine in Poland all have their own local frequency database for the statistical evaluation of DNA evidence in forensic casework. Although this means that the Polish police use DNA profiling techniques in criminal investigations, it is unknown whether they also store the DNA profiles in a (central) database.

On the website of the Polish police (in Polish) it is stated that in 2001 actions were taken to create a forensic DNA database. This database would contain DNA profiles of crime suspects, unidentified crime scene stains, unknown persons and unidentified corpses. However, as there is no further information supplied on this initiative, it can not be confirmed whether this database is operative or even actually exists.

General Characteristics of the DNA database

National DNA database: Unknown

120 Personal communication of Grzegorz KACZMARCYK (Department of Forensic Medicine, Jagiellonian University of Krakow).
121 Personal communication of Krzysztof REBALA (Department of Forensic Medicine, Medical University of Gdansk).
§ 19. Portugal\textsuperscript{122}

<table>
<thead>
<tr>
<th>General Characteristics of the DNA database</th>
</tr>
</thead>
<tbody>
<tr>
<td>National DNA database: NO</td>
</tr>
</tbody>
</table>

Although there is currently no law that deals explicitly with the forensic use of DNA, the Portuguese police do collect crime scene stains. The Portuguese Parliament is currently considering a bill which would allow for the creation of a national forensic DNA database.\textsuperscript{123}

\textsuperscript{122} Personal communication of Helena MONIZ, assistant professor at the Biomedical Law Centre of the University of Coimbra.

\textsuperscript{123} A draft of this bill (in Portuguese) as it was proposed by a specially appointed commission can be consulted at: \url{http://www.mj.gov.pt/sections/pessoas-bens/base-de-dados-geneticos8948/regime-juridico-da-base/} (accessed 21 June 2007).
§ 20. Slovakia ¹²⁴

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **2004**
- Size of the database:
  - Identified profiles: **ca. 7,500**
  - Unidentified crime scene Stains: **ca. 2,500**
- Database custodian: **Institute of Forensic Science of the Slovakian Police Corps**
- Relevant national legislation: **Act No. 417/2002 Coll. on the use of DNA analysis for the identification of persons.**
- Structure of the database: **CODIS version 5.7**

A. Sample collection

There are no restrictions to the collection of DNA samples from crime suspects, convicted offenders and unidentified crime scene stains. The taking of a DNA sample from minors and mentally ill persons is only allowed when this is necessary for the search for missing persons.

B. Entry criteria

There are no restrictions to the entry of DNA profiles which are derived from unidentified crime scene stains. The DNA profiles of crime suspects and convicted offenders can be entered into the database when they are suspected or convicted of any recordable offence.

C. Removal criteria

According to the provisions in § 69 (6) and § 69 (7) of the amended Act on the Police Force of the Slovak republic, any data (including

¹²⁴ Personal communication of Peter KOVÁČ (Department of Forensic Medicine, University of Bratislava).
DNA profiles) should be destroyed without undue delay if the police do not need these data for the fulfilling of its tasks. Police officials are obliged to check at least once within three years whether storage of these data is still necessary. Based on the purpose of the DNA profiles which are derived from crime scene stains, it can therefore be concluded that these DNA profiles are stored in the database until a match is made.

DNA profiles of convicted offenders must be removed hundred years following the birth of the individual. This provision is also valid for the profiles of persons who could not be prosecuted due to a non compos mentis state at the time of committing the crime or who can not be prosecuted due to insanity.

The DNA profiles of crime suspects must be removed upon acquittal.

D. Sample retention

The DNA samples of convicted offenders can be retained. Those of crime suspects must be destroyed upon acquittal.

E. Database access and international exchange of the DNA profiles

The database administrator and the DNA analysts have access to all information contained in the database (surname, given names, birth date and place of birth, personal no. or passport number (foreign nationals), resident address, nationality, other data characterizing the person). Police officials and judicial officials only have access to the results of the comparisons that are made between the various DNA profiles. DNA profiles can be exchanged with the other EU Member States through Interpol.
§ 21. Spain

**General Characteristics of the DNA database**

National DNA database: **NO**

Although there is currently no specific law that would allow for the creation of a national forensic DNA database, the Spanish police, the Guardia Civil and the Basque police (Ertzaintza) do manage local DNA databases. As these small databases are not regulated either, they are probably illegal.\(^{125}\) However, the Spanish Parliament is currently considering a bill which would allow for the creation of a national forensic DNA database. Meanwhile, a judge can order the taking of a sample from a crime suspect in order to create a DNA profile. Although the suspect cannot be obliged to cede a sample, refusal can be considered as criminal disobedience.\(^{126}\) DNA analysis can be performed if requested by the prosecutor or the defense, but only upon a court order.\(^{127}\) Spain has signed and ratified the Convention of Prüm.

---

\(^{125}\) Personal communication of Angel CARRACEDO, director of the Institute for Legal Medicine at the University of Santiago de Compostela.


\(^{127}\) Idem, 81.
Switzerland

General Characteristics of the DNA database

- National DNA database: YES
- Date established: 2000
- Size of the database:
  - Identified profiles: ca. 26,693
  - Unidentified crime scene stains: ca. 16,032
- Database custodian: The National Police Board
- Relevant national legislation: Polisdatalagen (1999 and 2006)
- Structure of the database: Oracle - CODIS

A. Sample collection

The police have the authority to collect DNA samples from crime suspects and unidentified crime scene stains, but not from convicted offenders.

The taking of a DNA sample from a minor is not allowed. The taking of a DNA sample from mentally ill persons is allowed when they are suspected of a crime.

B. Entry criteria

There are no restrictions to the entry of DNA profiles that are derived from unidentified crime scene stains.

The DNA profiles of crime suspects can be entered into the database when this penalty is in proportion to the prison sentence they may have to serve.

The DNA profiles of convicted offenders can be entered into the database when they are condemned to another sentence than a monetary one.

128 Personal communication of the Swedish Statens kriminaltekniska laboratorium [national crime laboratory].
C. Removal criteria

The DNA profiles that are derived from unidentified crime scene stains have to be removed from the database when a match is made, when the crime is solved in a different way than by DNA profiling or, depending on the severity of the crime, after fifteen or thirteen years. The DNA profiles of crime suspects have to be removed upon acquittal. The DNA profiles of convicted offenders have to be removed ten years after the passing of their sentence.

D. Sample retention

The DNA samples of crime suspects and convicted offenders have to be destroyed as soon as possible and can in any case no longer be retained than six months after the DNA profiles have been created.

E. Database access and international exchange of the DNA profiles

The database managers and the DNA scientists of the Swedish National Laboratory of Forensic Science have access to all information that is contained in the database. DNA profiles can be exchanged with the other EU Member States through Interpol.
§ 22. The Netherlands

General Characteristics of the DNA database

- National DNA database: YES
- Date established: 1994
- Size of the database:
  - Identified profiles: ca. 20,633
  - Unidentified crime scene stains: ca. 25,223
- Database custodian: National Forensic Institute (NFI), under the authority of the Minister of Justice
- Structure of database: CODIS: SQL Server

A. Sample collection

Police officers are allowed to collect all crime scene DNA stains that possibly belong to a criminal offender. However, they are not authorized to order a DNA analysis of these DNA samples. This power only comes to the officer of justice and the judge-commissioner.\(^{129}\)

The officer of justice can order the coercive sampling of a crime suspect when there are serious indications that he is involved in an offence that can lead to provisional detention.\(^{130}\)

Crime suspects also have the opportunity to voluntarily cede a DNA sample.\(^{131}\) In that case, a written request will be sent to the suspect to which he can consent or not. He has the right to be assisted by an attorney when taking a decision. When the suspect consents, the suspect can choose whether sampling is performed by taking cheek adhesive, blood or hair shafts. Sampling is normally performed by a doctor or a nurse. Upon the suspects’ consent, sampling can also be performed by an investigation officer. In that case, the investigation officer is only allowed to take cheek adhesive or hair shafts.

\(^{129}\) Act on criminal proceedings, art. 195a, §1.

\(^{130}\) Idem, art. 151b, §1.

\(^{131}\) Law on DNA investigation in criminal proceedings, §2, art. 2: 1-9.
Forensic DNA Databases in the EU

According to the law of 2 February 2005, coercive harvesting of a tissue sample is allowed for offenders who are convicted of a crime that, according to law, can lead to provisional detention.\textsuperscript{132} This law applies to all individuals who are convicted after 2 February 2005 and to those individuals who were convicted before this date, but at that time have not sat out their full sentence or have not been incarcerated yet. An appeal can be made against the creation of a profile from this sample in the DNA database, but not against the collecting itself. The Dutch DNA law does not provide for a different treatment of minors and mentally ill persons.\textsuperscript{133}

B. Entry criteria

DNA profiles of crime suspects can only be entered into the database when they are suspected of a crime that can lead to provisional detention or by order of an investigation judge or prosecutor.\textsuperscript{134} According to the law of 2 February 2005, the creation of DNA profiles from samples taken from convicted offenders is only permitted when they are convicted of a crime that can lead to provisional detention.\textsuperscript{135} This provision is retroactively valid for those who were convicted before 2 February 2005 and for those who have not been incarcerated yet.\textsuperscript{136} There are no conditions for the entry of the DNA profiles that are derived from unidentified crime scene stains.\textsuperscript{137}

C. Removal criteria

DNA profiles which are derived from unidentified crime scene stains are removed from the database after twelve, twenty or eighty years, depending on the seriousness of the offence.\textsuperscript{138} The DNA profiles of crime suspects and convicted offenders are removed from the database thirty years after entry when the suspicion,

\begin{itemize}
\item \textsuperscript{132} \textit{Law on DNA investigation of convicts}, art. 2, §1.
\item \textsuperscript{133} Personal communication of the Dutch Ministry of Justice department.
\item \textsuperscript{134} \textit{Law on DNA investigation in criminal proceedings}, §4, art. 14: 4a.
\item \textsuperscript{135} Idem, §4, art. 14: 4d.
\item \textsuperscript{136} \textit{Law on DNA investigation of convicts}, art. 8, §1.
\item \textsuperscript{137} \textit{Law on DNA investigation in criminal proceedings}, §4, art. 14: 4b.
\item \textsuperscript{138} Idem, §4, art. 18:7.
\end{itemize}
respectively conviction relates to a crime which can result in a prison sentence of maximum 6 years or more and twenty years when it concerns a crime which can result in a prison sentence of less than six years, or twenty years after the decease of the individual.\textsuperscript{139} This period can be extended for another twenty or thirty years when the crime suspect or convicted offender is peremptory convicted for another offence.

The DNA profiles of crime suspects who are acquitted have to be removed as soon as the public prosecution office has informed the NFI that the individual is no longer considered a suspect.\textsuperscript{140}

D. Sample retention

All regulations regarding the entry and removal of DNA profiles are also valid for the DNA samples from which they were derived.\textsuperscript{141}

E. Database access and international exchange of the DNA profiles

Only authorized personnel of the NFI have access rights to the DNA database and the register that contains the matching personal data of the suspects and convicted offenders whose profile is entered into the database. The NFI are only allowed to provide relevant data to judiciary officials, police officials and officials of the Central Judicial Collection Agency in as far as they use it for the tasks that are listed in the law.\textsuperscript{142}

The NFI may only provide information from the DNA database to police officials when this it is related to an unsolved case. This information must be limited to the name, birth date, and birth place of the individual. This last restriction also applies to the Central Judicial Collection Agency.\textsuperscript{143}

The NFI may only provide information to the various authorized persons upon their written request and is obliged to register the

\textsuperscript{139} Idem, §4, art. 18: 1-3.
\textsuperscript{140} Idem, §4, art. 16: 1-2.
\textsuperscript{141} Idem, §4, art. 18: 10.
\textsuperscript{142} Idem, §4, art. 15: 2a-e.
\textsuperscript{143} Idem, §4, art. 15: 3-5.
identity of the applicant, the nature of the submitted information, and date of the transfer.\textsuperscript{144}

The Central Judicial Collection Agency is exempted from the obligation to submit a written request. They can consult the information electronically without authorization from the NFI. The CJCA can also authorize judiciary officials and police officials to consult the information electronically. In that case, the CJCA has to register the identity of the applicant and the date of the information transfer.\textsuperscript{145}

The regulations regarding requests for legal assistance apply to the international exchange of DNA profiles.\textsuperscript{146} Written or electronic requests by foreign judicial authorities must therefore be submitted to a Dutch officer of justice. The Netherlands have signed and ratified the Convention of Prüm and therefore have automatic access to the forensic DNA databases of the other contracting parties.

\textsuperscript{144} Idem, §4, art. 15: 6-7.
\textsuperscript{145} Idem, §4, art. 15: 6 & 8.
\textsuperscript{146} Personal communication of the Dutch Ministry of Justice department.
F. Sample collection

Whereas the Police and Criminal Evidence Act 1984 (PACE) allowed for the coercive taking of ‘non-intimate samples’ such as hair shafts, the Justice and Public Order Act 1994 (JPOA) changed the definition of ‘non-intimate samples’ to include buccal swabs by which police sampling powers were seriously extended.\(^{147}\) This provision applies to both crime suspects and convicted offenders who are arrested or convicted of any recordable offence.\(^{148}\) The police are allowed to take a DNA sample from minors who have reached the age of ten and from mentally ill persons.

There are no restrictions to the collection of crime scene samples.

G. Entry criteria

---

147 *JPOA (1994)*, section 58.
148 Idem, section 55.
The Justice and Public Order Act 1994 allows for the entry of the DNA profiles of all individuals who are arrested of any recordable offence or who are convicted of such an offence. All DNA profiles that are derived from crime scene stains are also stored in the NDNAD.

H. Removal criteria

The Criminal Justice and Police Act 2001 (CJPA) allows for the indefinite retention of the DNA profiles of both crime suspects and convicted offenders who are arrested or convicted of any recordable offence. This provision also applies to crime suspects who are subsequently acquitted or freed of charges. The DNA profiles which are derived from unidentified crime scene stains are stored in the database until a match is found.

I. Sample retention

The CJPA 2001 allows for the indefinite retention of the DNA samples of both crime suspects and convicted offenders who are arrested or convicted of any recordable offence. This provision also applies to crime suspect who are subsequently acquitted or freed of charges.

J. Database access and international exchange of the DNA profiles

Designated staff members of the FSS and IT specialists have access to information such as individual’s names, date of birth, ethnic appearance code, gender code, laboratory responsible for the sampling, sample and test type, offence code, etc. The legal basis for the international exchange of DNA profiles is the CJPA 2001. A request for information must be submitted through Interpol. Interpol London decides whether the requested information is released or not.

149 CJPA (2001), section 82.
150 Idem
151 Idem, section 81.
§ 23. UK (Scotland)

General Characteristics of the DNA database

- National DNA database: **YES**
- Date established: **1995**
- Size of the database:
  - Identified profiles: **No information**
  - Unidentified crime scene stains: **No information**
- Database custodian: **Police Forensic Science Laboratory Dundee (PFSLD)**
- Relevant national legislation: **Criminal Procedure Act of Scotland (1995) and the Criminal Justice Act of Scotland (2003).**
- Structure of the database: **Oracle 9i**

A. Sample collection

A constable or a police custody and security officer at a constable’s direction can collect a mouth swab from those arrested of any recordable offence.\(^{152}\) They may use reasonable force in exercising this power.\(^{153}\)

A constable or a police custody and security officer at a constable’s direction can also coercively collect a mouth swab from those convicted of any recordable offence.\(^{154}\)

They are allowed to take a DNA sample from minors who have reached the age of ten and from mentally ill persons.

There are no restrictions to the collection of unidentified crime scene samples.

B. Entry criteria

The Criminal Procedure (Scotland) Act 1995 allows for the entry of the DNA profiles of those arrested of any recordable offence or who are convicted of such an offence.

---

\(^{152}\) **Criminal Justice (Scotland) Act 2003**, art. 55, section 2.

\(^{153}\) **Criminal Procedure (Scotland) Act 1995**, art. 18, section 7.

\(^{154}\) **Criminal Justice (Scotland) Act 2003**, art. 55, section 3.
All DNA profiles that are derived from unidentified crime scene stains are also stored in the database.

C. Removal criteria

The DNA profiles of those who are arrested of any recordable offence have to be removed from the database as soon as possible following the decision not to institute criminal proceedings against the person concerned or upon acquittal. The DNA profiles of those convicted of any recordable offence can be retained indefinitely.

The DNA profiles which are derived from unidentified crime scene stains are stored in the database until they are identified.

D. Sample retention

The DNA samples of those who are convicted of any recordable offence can be retained indefinitely. Those taken from persons who are arrested of any recordable offence have to be destroyed as soon as possible following the decision not to institute criminal proceedings against the person concerned or upon acquittal.

E. Database access and international exchange of the DNA profiles

Although they can largely develop their own policies regarding the treatment of profiles and samples which are collected in the course of criminal investigations, it is not entirely correct to consider the databases of Scotland and England & Wales as two separate entities. As Scotland exports all its profiles and unidentified crime scene stains to the NDNAD, the latter in fact contains nearly all UK profiles. As Scotland does not retain the profiles of suspects who are acquitted and against whom no criminal proceedings are instituted,

155 Criminal Procedure (Scotland) Act 1995, art. 18, section 3.
156 Idem.
these are the only profiles that stay in the custody of the Scottish police.
Sample collection

Most Member States have not set any restrictions on the collection of unidentified crime scene stains by their law enforcement officers. Only Belgium and Italy have stipulated that an order of a judicial official is required. The latter measure is designed to prevent the collection of bodily material that belongs to innocent persons. It seems however that law enforcement officers should be given as much freedom as possible to collect pieces of evidence at the beginning of a criminal investigation. To preclude abuses it could however be stipulated in law that the collection of crime scene stains should only be allowed in the course of an official criminal investigation, as in Luxemburg is the case.

Coercive sampling is allowed in all Member States. There is however no agreement amongst them whether law enforcement officers should be allowed to decide this autonomously or not. Denmark, Estonia, Hungary, Latvia, Slovakia, England & Wales, and Scotland have given their law enforcement officers full authority to take DNA samples from suspects and convicted offenders. In Belgium, Cyprus, Germany, Luxemburg, and The Netherlands, on the other hand, a court order is required to coercively take a DNA sample. Although this latter procedure can seriously slow down a criminal investigation, it serves to protect the principle of the presumption of innocence. Austria, France, and Finland have adopted a middle course and have laid down that the severity of the offence should be taken into account. Law enforcement officers are only allowed to coercively take a DNA sample in case of respectively ‘serious’ offences, offences which are punished by ten years imprisonment, and those which are punished by at least six months imprisonment.

Sweden and Lithuania distinguish between crime suspects and convicted offenders and apparently do not allow for coercive sampling of the latter. At first sight, this policy seems counterintuitive because convicted offenders are supposed to carry diminished civil rights.
However, as we asked in our questionnaire\textsuperscript{158} explicitly if \textit{the police} are allowed to take a DNA sample from convicted offenders, it is possible that others, such as warders, are authorized to perform this task.

Most Member States also allow for the sampling of minors and mentally-ill persons. Only Lithuania, Sweden, and Slovakia have explicitly indicated that this is not allowed in their jurisdiction. Although in the other Member States the consent of the legal guardian(s) is usually required, only Finland, Germany, and Luxemburg have set a precise minimum age whereupon minors can be sampled.

\textbf{Entry and removal criteria}

Currently all Member States store the DNA profiles that are derived from unidentified crime scene stains. In Belgium and Luxemburg, however, this requires a court order.

With the exception of Belgium and the Czech Republic, all Member States also allow for the entry of suspects’ DNA profiles. In this respect the EU database policies seriously deviate from those of the US States which in most case only allow for the entry of convicted offenders’ DNA profiles. However, there are also some serious differences between the EU Member States themselves. Whereas England & Wales, Scotland, Estonia, Latvia, Lithuania, and Slovakia allow for the entry of those who are arrested for any recordable offence, the other Member States have set certain conditions to the entry of suspects. As suspects must be considered innocent until proven guilty, such a cautious approach seems indeed appropriate.

With regard to the entry criteria of convicted offenders’ DNA profiles, the same observations can be made. It is however striking that Finland has stipulated that suspects can already be entered when they are arrested for an offence that could lead to a prison sentence of six months or more, whereas convicted offenders can only be entered when they are punished by three years imprisonment or more.

Suspects whose DNA profile does not match any unidentified crime scene stain and who are subsequently acquitted of all charges have to be considered innocent. Most Member States therefore remove these profiles immediately from their database. The policies of England &

\textsuperscript{158} See appendix
Wales, Denmark and the Baltic States, on the other hand, which allow for the retention of all suspects’ DNA profiles, regardless of the outcome of the criminal investigation, therefore do not seem to be in accordance with the principle of proportionality. Although they do use DNA profiling techniques six Member States (Spain, Portugal, Italy, Malta, Greece, and Ireland) have not yet established a forensic DNA database. It is striking that these are mainly South European Member States—Spain, Portugal, Italy, Ireland, and Malta, however, are currently considering legislative proposals.

Sample retention

Four different policies regarding the retention of forensic DNA samples can broadly be distinguished, ranging from immediate destruction of all samples after the corresponding DNA profiles are created to their indefinite retention. Germany, Lithuania, Sweden, and Belgium are the only Member States that pursue the former policy. Hence, it can be concluded that these are the only Member States that completely preclude any possible secondary use of the samples. A second group of Member States distinguishes between suspects and convicts with regard to the treatment of their respective DNA samples. Member States in this group destroy the samples of crime suspects as soon as they are acquitted or freed from charges. This ensures that governments do not dispose of identifiable bodily material of individuals who were found innocent. Member States which pursue this policy include Cyprus, Czech Republic, Finland, France, Hungary, Luxemburg, Scotland, Slovakia, and The Netherlands. Austria maintains a very similar policy, but it requires that suspects submit a written request for sample destruction after they are acquitted. Regarding the DNA samples of convicted offenders, on the other hand, these Member States allow for their retention for a substantial period of time and therefore exceed the storage time which can be considered reasonable. This period varies from twenty years after the expiry of the sentence in Hungary to indefinite retention in Scotland. A third group of Member States retains the DNA samples of both categories of individuals for a certain period of time. Denmark retains
all samples until the included individuals have reached the age of eighty years and Latvia retains all samples for seventy-five years. As these two Member States do not distinguish between crime suspects and convicted offenders and moreover do not take the severity of the offence of which somebody is suspected or convicted into consideration, this policy could be considered to be at odds with the principle of proportionality. Finally, a fourth group of Member States has not set an exact term for the destruction of the samples. It can therefore be assumed that England & Wales and Estonia retain the samples of both suspects and convicts indefinitely.

**Database access**

There is a clear distinction between Member States which have given their forensic divisions full access rights to the database information and those in which law enforcement officers or judicial officials are entrusted with this competence. Only in Germany and Denmark both of these bodies are given equal access rights. In Belgium, Estonia, Finland, Latvia, Lithuania, Luxembourg, Slovakia, Sweden, The Netherlands, and the UK, only the staff members of the forensic divisions have full access rights to the database information. The police and judicial officials, on the other hand, have only limited access. In Lithuania, for example, the police can only check if an individual’s DNA profile is included in the database and in Luxembourg and Latvia judicial officials have to submit a request for information to the forensic department. It is striking that only in Denmark and Germany law enforcement officers are granted full access rights. In all other Member States they first have to contact certain judicial officials or do they only receive limited information on the included individuals when they address the forensic division directly.

The same observation can be made with regard to judicial officials. Only four Member States (Austria, Denmark, France, and Hungary) have explicitly declared that judicial officials have full access to the all information on the included individuals. In general, it can be concluded that the various forensic divisions enjoy a broad autonomy. While in most Member States law
enforcement officers and judicial officials only have access to limited information, the staff members of the forensic divisions can consult all the stored information.

**International exchange of the DNA profiles**

All Member States currently make use of the Interpol DNA gateway and database to exchange their DNA profiles. However, as Interpol only acts as an exchange platform for their members, it does not dispose of the personal information on the DNA profiles which are stored into its database. If a match is found, Interpol shall contact the countries which have submitted these DNA profiles. From that moment on, it is up to the national states to start negotiations on the possible exchange of personal information. While this procedure ensures that personal information is not automatically transferred to countries that do not have elaborated privacy laws, it also seriously slows down criminal investigations and renders the outcome of requests for international legal assistance uncertain. Furthermore, as Interpol’s collection of DNA profiles is rather small, the efficiency of its database is very low.

Both of these restraints are addressed in the Convention of Prüm. Firstly, it allows its contracting partners to access each others complete DNA profile collections. This should drastically increase the chances for a positive hit. Secondly, as the contracting partners have established clear agreements on the exchange terms and on the privacy measures which should be taken into account, the exchange of information should pass off more smoothly. Currently, seven Member States have signed the Convention (Belgium, Luxemburg, France, Germany, Austria, Spain, and The Netherlands) of which six have also ratified it (except for France). Finland, Portugal, Italy and Slovenia have declared their intention to sign the Convention in the near future.
Table I: Entry criteria

<table>
<thead>
<tr>
<th>Country</th>
<th>Convicted Offenders</th>
<th>Suspects</th>
<th>Crime Scene Stains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>No restrictions</td>
<td>Only those charged of a serious offences</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Belgium</td>
<td>Only those convicted of a serious offence</td>
<td>No suspect database</td>
<td>Can only be entered when ordered by a prosecutor</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>No Information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Cyprus</td>
<td>No restrictions</td>
<td>No restrictions</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>No restrictions</td>
<td>No suspect database</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Denmark</td>
<td>No restrictions</td>
<td>Only those charged of an offence that could lead to a prison sentence of 1½ years or more</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Estonia</td>
<td>Convicted of any recordable offence</td>
<td>Arrested of any recordable offence</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Finland</td>
<td>Only those serving a prison sentence of 3 years or more</td>
<td>Only those charged of a crime that could lead to a prison sentence of 6 months or more</td>
<td>No restrictions</td>
</tr>
<tr>
<td>France</td>
<td>Only those convicted of a serious offence (list in law)</td>
<td>Only those charged of a serious offence (list in law)</td>
<td>When deemed relevant</td>
</tr>
<tr>
<td>Germany</td>
<td>Only those convicted of a serious offence or repeatedly committing the same minor offence</td>
<td>Only those charged of a serious offence</td>
<td>When related to any recordable offence</td>
</tr>
<tr>
<td>Greece</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Country</td>
<td>Conviction or Charge Requirement</td>
<td>Restriction on Entry</td>
<td>Reason for Restriction</td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Hungary</td>
<td>Upon conviction of one of the crime categories which are listed in law</td>
<td>Only those charged of an offence that could lead to a prison sentence of 5 years or more and those charged with an offence that is listed in law</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Ireland</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Italy</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Latvia</td>
<td>Convicted of any recordable offence</td>
<td>Suspected of any recordable offence</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Lithuania</td>
<td>No restrictions</td>
<td>No restrictions</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>Only those convicted of an offence that is listed in law (order of solicitor or examining magistrate is required)</td>
<td>Suspected of any recordable offence (order of solicitor or examining magistrate is required)</td>
<td>Only by order of the solicitor, the examining magistrate or a judicial police officer acting by order of one these magistrates</td>
</tr>
<tr>
<td>Malta</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Poland</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Portugal</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Romania</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Convicted of any recordable offence</td>
<td>Suspected of any recordable offence</td>
<td>No restrictions</td>
</tr>
<tr>
<td>Slovenia</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Spain</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sweden</td>
<td>Only those condemned to other punishment than a fine</td>
<td>From all suspects, if entry is in scale of possible prison sentence</td>
<td>No restrictions</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Only those serving a prison sentence of 4 years or more</td>
<td>Only those charged of an offence that could lead to a prison sentence of 4 years or more</td>
<td>No restrictions</td>
</tr>
</tbody>
</table>
Forensic DNA Databases in the EU

<table>
<thead>
<tr>
<th>Country</th>
<th>Convicted Offenders</th>
<th>Suspects</th>
<th>Crime Scene Stains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Retained indefinitely</td>
<td>Upon acquittal, but only after submitting a written request</td>
<td>Until case is solved</td>
</tr>
<tr>
<td>Belgium</td>
<td>10 years after death of convicted offender</td>
<td>N/A</td>
<td>When no longer considered useful (order of public prosecution office is necessary)</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Cyprus</td>
<td>When record is cleared</td>
<td>When freed of charges or upon acquittal</td>
<td>Until identification</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>80 years after entry</td>
<td>N/A</td>
<td>Until identification</td>
</tr>
<tr>
<td>Denmark</td>
<td>2 years after death or at the age of 80 years</td>
<td>2 years after death or at the age of 80 years</td>
<td>When prescription term is reached</td>
</tr>
<tr>
<td>Estonia</td>
<td>10 years after death of convicted offender</td>
<td>10 years after death of the individual</td>
<td>75 years after entry</td>
</tr>
<tr>
<td>Finland</td>
<td>Ten years after death of convicted offender</td>
<td>Within 1 year starting at the moment the prosecutor has made sure that there is no evidence of an offence, charges have been dismissed or when the sentence has been nullified. If the samples are not removed earlier, they must be removed ten</td>
<td>No time limit</td>
</tr>
</tbody>
</table>

Table II: Removal criteria
<table>
<thead>
<tr>
<th>Country</th>
<th>Storage Duration</th>
<th>Conditions</th>
<th>Retention Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>40 years after the death of the individual</td>
<td>When storing seems no longer necessary given the purpose of the profile (Procedure can only be started by the prosecutor or the individual involved)</td>
<td>40 years after analysis</td>
</tr>
<tr>
<td>Germany</td>
<td>Profiles are checked every 5 years in case of minors and every 10 years in case of adults; profiles must be removed when retaining them seems no longer necessary</td>
<td>Profiles are checked every 5 years in case of minors and every 10 years in case of adults; profiles must be removed when retaining them seems no longer necessary</td>
<td>Destruction obligatory after 30 years, but mostly after 10 years</td>
</tr>
<tr>
<td>Greece</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hungary</td>
<td>20 years after sentence has been passed</td>
<td>Upon abandonment of the proceedings or upon acquittal</td>
<td>When prescription term is reached</td>
</tr>
<tr>
<td>Ireland</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Italy</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Latvia</td>
<td>75 years after entry</td>
<td>75 years after entry</td>
<td>Until identification</td>
</tr>
<tr>
<td>Lithuania</td>
<td>100 years after entry or 10 years after death of convicted offender</td>
<td>100 years after entry or 10 years after death of suspect</td>
<td>No time limit</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>10 years after the death of convicted offender</td>
<td>Upon acquittal, when prescription term is reached or 10 after the death of the individual</td>
<td>30 years after entry</td>
</tr>
<tr>
<td>Malta</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Poland</td>
<td>Unknown</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>Portugal</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Romania</td>
<td>No information</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Slovakia</td>
<td>100 years after birth</td>
<td>upon acquittal</td>
<td>When no longer</td>
</tr>
</tbody>
</table>
Forensic DNA Databases in the EU

<table>
<thead>
<tr>
<th>Country</th>
<th>Convicted Offenders</th>
<th>Suspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slovenia</td>
<td>No information</td>
<td>No information</td>
</tr>
<tr>
<td>Spain</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sweden</td>
<td>10 years after sentence has been passed</td>
<td>Until identification, when case is solved or depending on the severity of the crime, after 15 or 30 years</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>20 years after the entry when the sentence involves a prison sentence of 6 years or less; 30 years when the sentence involves a prison sentence of 6 years or more; 20 years after the death of convicted offender (all periods can be expanded)</td>
<td>After 12, 20 or 80 years depending on the severity of the crime</td>
</tr>
<tr>
<td>UK (Eng. &amp; Wales)</td>
<td>Retained indefinitely</td>
<td>Retained indefinitely</td>
</tr>
<tr>
<td>UK (Scotland)</td>
<td>Retained indefinitely</td>
<td>Upon abandonment of the proceedings or upon acquittal</td>
</tr>
</tbody>
</table>

**Table III: Sample retention**

<table>
<thead>
<tr>
<th>Country</th>
<th>Convicted Offenders</th>
<th>Suspects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Have to be destroyed when individual reaches the age of 80 years</td>
<td>Samples are retained; when suspect is acquitted, a written request for destruction must be submitted</td>
</tr>
<tr>
<td>Belgium</td>
<td>Have to be destroyed once DNA profile is created</td>
<td>Have to be destroyed once the public prosecution office has made sure that a counter-enquiry is not going to be proceeded or when the result of a counter-enquiry has been</td>
</tr>
<tr>
<td>Country</td>
<td>Retention Policy</td>
<td>Additional Information</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>No information</td>
<td>.communicated to the suspect who has ordered it</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Follow fate of DNA profile</td>
<td>Follow fate of DNA profile</td>
</tr>
<tr>
<td>Czech Rep.</td>
<td>Follow fate of DNA profile</td>
<td>N/A</td>
</tr>
<tr>
<td>Estonia</td>
<td>Follow fate of DNA profile</td>
<td>Samples are retained</td>
</tr>
<tr>
<td>Finland</td>
<td>Have to be destroyed 10 years after death of the individual</td>
<td>Have to be destroyed within 1 year starting at the moment the prosecutor has made sure that there is no evidence of an offence, charges have been dismissed or when the sentence has been nullified. If the samples are not removed earlier, they must be removed ten years after the death of the person</td>
</tr>
<tr>
<td>France</td>
<td>Retained for 40 years after sentence has been passed or until individual reaches the age limit of 80 years</td>
<td>Until conviction or acquittal, sample is treated like any other piece of evidence</td>
</tr>
<tr>
<td>Germany</td>
<td>Have to be destroyed when no longer considered useful for investigation</td>
<td>Have to be destroyed when no longer considered useful for investigation</td>
</tr>
<tr>
<td>Greece</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Hungary</td>
<td>Have to be destroyed 20 years after sentence has been passed</td>
<td>Have to be destroyed upon abandonment of the proceedings or upon acquittal</td>
</tr>
<tr>
<td>Ireland</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Italy</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Latvia</td>
<td>Retained for 75 years</td>
<td>Retained for 75 years</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Have to be destroyed once DNA profile is created</td>
<td>Have to be destroyed once DNA profile is created</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>Have to be destroyed 10 years</td>
<td>Have to be destroyed upon</td>
</tr>
<tr>
<td>Country</td>
<td>Retention Policy</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td>Unknown</td>
<td></td>
</tr>
<tr>
<td>Portugal</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Romania</td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Slovakia</td>
<td>Samples are retained</td>
<td></td>
</tr>
<tr>
<td>Slovenia</td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Spain</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td>Have to be destroyed as soon as possible</td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Have to be destroyed after 20 years when the sentence involves a prison sentence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of 6 years or less; 30 years when the sentence involves a prison sentence of 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>years or more; 20 years after the death of the individual (all periods can be</td>
<td></td>
</tr>
<tr>
<td></td>
<td>extended)</td>
<td></td>
</tr>
<tr>
<td>UK (Eng. &amp; Wales)</td>
<td>Retained indefinitely</td>
<td></td>
</tr>
<tr>
<td>UK (Scotland)</td>
<td>Retained indefinitely</td>
<td></td>
</tr>
</tbody>
</table>

*Forensic DNA Databases in the EU*

acquittal, when prescription term is reached or 10 after the death of the individual
Questionnaire

General Characteristics of the DNA database

- National DNA database: YES/NO
- Date established:
- Size of the database:
  - Identified:
  - Stains:
- Database custodian:
- Relevant national legislation:
- Structure of the database:

DNA collection

1. The police have the authority to take DNA samples from:

   - *Crime scenes*: YES/NO
     When:

   - *Suspects*: YES/NO
     When:

   - *Convicted offenders*: YES/NO
     When:

2. Can a sample be taken from a minor?
   YES/NO
3. Can a sample be taken from a mentally ill person?  
   YES/NO

---

**DNA profiles**

1. DNA profiles can be retained on the national DNA database when legally obtained from:

   - *Crime scenes:* YES/NO  
     When:

   - *Suspects:* YES/NO  
     When:

   - *Convicted offenders:* YES/NO  
     When:

2. When do the DNA profiles have to be removed from the national DNA database?

   - *Crime scenes:*
   
   - *Suspects:*
   
   - *Convicted offenders:*

---

**DNA samples**

DNA samples can be retained on the national DNA database when legally obtained from:

   - *Suspects:* YES/NO  
     For how long?
Convicted offenders: YES/NO
For how long?

Access to the information

1. Who has access to the information on the DNA database?
2. What information do they have access to?

International exchange of DNA profile information

Through which channel(s) are requests for international exchange of DNA profile information made?


