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OPINION ON DRAFT AMENDMENTS TO THE DNA PROFILES ACT

Switzerland

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Based on an unofficial English translation of the Draft Act commissioned by the OSCE Office for Democratic Institutions and Human Rights.

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EXECUTIVE SUMMARY AND KEY RECOMMENDATIONS

The Draft Amendments seek to reform the Swiss DNA Profiles Act and relevant criminal procedure legislation by introducing further means of DNA profiling, notably searching for potential relatives of a person whose DNA trace was found at a crime scene (kinship matching) and analysing special DNA markers to determine a person's externally visible traits, biogeographical origins and age (phenotyping). Additional changes introduced to the DNA Profiles Act concern the regulation of surplus information gained, the destruction of DNA samples, as well as a revised approach to retention periods and deletion of DNA profiles.

As evidenced in key case law of the European Court of Human Rights, the collection, processing and storage of DNA samples and profiles interfere with the right to private life and may also raise concerns in relation to other rights, such as the right to a fair trial and to the presumption of innocence and the right to freedom from discrimination. It is thus essential to clarify the necessity of such additional profiling measures, in particular in terms of their nature and scope, as well as the proportionality of such measures, and in which cases they will be applied.

Moreover, the retention of DNA samples and DNA profiles in relevant databases needs to be subjected to proper oversight mechanisms, involving independent bodies that are not connected to investigations and prosecutions, nor to forensic companies, to ensure that the need for retention is reviewed and that samples and profiles are destroyed and deleted when they are no longer needed for the purposes of criminal investigations. The retention of DNA profiles should follow a more individualized and differentiated approach, with special protection for the rights of persons who have been acquitted or where criminal proceedings were abandoned or not opened, as well as persons with disabilities.

More specifically, and in addition to what is stated above, the OSCE/ODIHR makes the following recommendations to further enhance the compliance of the draft legislation with international standards:

A. to add specific elements on the operation of DNA databases to the scope of the Act under Article 1 par 1 and include additional aims of the Act, such as quality assurance and control, accountability and transparency, while specifying the importance of following a human rights and rule of law compliant approach throughout; [paras 36-38]

B. to revise Article 2, to indicate that the letters and numbers making up a DNA profile may distinguish individuals with a high degree of certainty; [par 40]

C. with respect to kinship matching:

1. to review the necessity and proportionality of extending kinship matching to all felonies, pursuant to the draft Article 258a of the Criminal Procedure Code; [par 43]

2. to specify in the draft Article 2a of the DNA Profiles Act that kinship matching refers to persons who have a DNA profile similar to the DNA trace profile and/or who may have kinship with the donor and include in this provision guiding criteria outlining in which cases it will be considered necessary and proportionate to order searches involving kinship matching; [par 45]

D. with respect to phenotyping:

1. to revise the definition of phenotyping under Article 2b, so that it takes into consideration traces concerning non-visible traits of individuals and specify that phenotyping will only be used as an ultima ratio in criminal investigations; [par 53]
2. to support the technique of phenotyping with a proper regulatory infrastructure, which would include strict procedures and multiple layers of decision-making in place prior to and during the use of phenotyping, with clear oversight and accountability mechanisms, involving independent, multi-stakeholder oversight bodies that are not linked to or answerable to the police or prosecution authorities or forensic companies; [par 57]
3. to specify in the DNA Profiles Act and relevant criminal procedure legislation when phenotyping may invalidate a witness statement; [par 58]
4. to involve the National Council in the decision to introduce additional characteristics to the Act under Article 2b par 4 and reflect in this provision key criteria such as validity of data, but also the utility of technologies and processes, i.e. their operational value to criminal investigations, and the legitimacy and necessity of such technologies; [par 63]

E. with respect to data analysis:

1. to clarify in Articles 251, 255 and 257 of the Criminal Procedure Code whether consent must be sought prior to police or court decisions ordering the taking of DNA samples from individuals, and ensure individuals' privacy rights in the relevant processes and technologies involved in a manner that is compatible with relevant ISO standards on disclosure, specifying the need to maintain the chain of custody and technical transparency; [par 67]
2. to ensure that Article 3 of the DNA Profiles Act specifies that the retention of surplus information shall be subject to clear regulatory structures, including information on the purpose of the retention, and monitoring systems. Safeguards should also be in place in the form of transparent processes and oversight mechanisms, and the DNA Profiles Act should likewise specify possible consequences in case the above rules are breached; [par 72]
3. to clarify in Article 6 of the Act the rule of free, informed and prior consent, with special reference to the equal treatment of persons with disabilities in this respect; [par 75]

F. with respect to destruction of samples:

1. to review the retention periods for DNA samples set out in Article 9 of the DNA Profiles Act and retain the shortest possible retention periods, while adding to

relevant legislation a provision outlining the right of individuals to apply for the deletion of DNA samples, either directly or by reference to the Data Protection Law; [par 85]

2. to review the rationale for allowing additional profiling under draft Article 9a of the DNA Profiles Act and ensure that this provision is compatible with international principles of necessity and proportionality; [par 90]

G. with respect to information systems and international cooperation:

1. to evaluate and expand Article 10 of the DNA Profiles Act to include basic principles referring to the aims and crime-solving capacities of DNA profile information systems, as well as their deterrence effect, proportionality and legitimacy, the protection of privacy rights of individuals, and implementation efficiency and costs, while bearing in mind key human rights issues; [par 92]

2. to create an independent oversight board to oversee DNA profile information systems; [par 93]

3. to ensure that the transnational sharing of data under Article 13 underlies a specific governing framework, the key elements of which, including guidance, safeguards and possible restrictions should be set out in primary legislation and subjected to political or public debate; [par 95]

H. with respect to retention and deletion:

1. to ensure that the processes and retention periods set out in Article 16 par 4 of the DNA Profiles Act are reviewed by an independent oversight body that is not linked to the police, bodies conducting investigation or prosecution or forensic companies, and to establish an individualized review process system to evaluate the ongoing necessity of retention of DNA profiles that is specifically tailored to the retention of such data for policing purposes; [par 104]

2. to enable individuals to apply for the deletion of their DNA profiles, and to set out this right in relevant legislation, either directly or by reference to the Data Protection Law; [par 106]

3. to substantially revise or delete the provisions in the draft Article 16 par 4 of the DNA Profiles Act, as well as the approach taken in the draft Article 16 par 5 of the same Act allowing for the unlimited retention of data of those who were acquitted/ not proceeded against on the basis of mental incapacity. Similarly, Article 16 par 7 stating that in all other cases not covered by other provisions, DNA profiles are retained for 10 years should be reviewed for its compatibility with international standards of necessity and proportionality; [pars 106 - 107]

4. to clarify in Article 17 of the DNA Profiles Act, how this provision matches the general retention regimes set out in the revised Article 16 of the same Act, and which process will determine this, while specifying how a “definite suspicion” or “concern about a repeat offence” will be evidenced; [par 110]

I. to ensure that evaluation of the Act under draft Article 20a of the DNA Profiles Act is conducted by a transparent body that is independent from the authority in charge of the investigation or prosecution, but also from the police and

forensic companies, having access rights to all relevant data. The criteria of "appropriateness and effectiveness" mentioned in the provision will need careful explication and supplementing with other aims; [par 115]

J. to ensure an in-depth impact assessment that includes a proper human rights assessment of the Draft Amendments, and continue inclusive, extensive and effective consultations on the Draft Amendments and possible changes to their provisions, including with civil society, offering equal opportunities for women and men to participate, at all stages of the law-making process; [par 122].

These and additional Recommendations are included throughout the text of this Opinion, highlighted in bold.

As part of its mandate to assist OSCE participating States in implementing OSCE commitments, the OSCE/ODIHR reviews, upon request, draft and existing legislation to assess their compliance with international human rights standards and OSCE commitments and provides concrete recommendations for improvement.

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I. INTRODUCTION

1. On 3 June 2021, the First Vice President of the Swiss National Council sent to the OSCE Office for Democratic Institutions and Human Rights (hereinafter "OSCE/ODIHR") a request for a legal review of draft amendments to the Federal Act on the Use of DNA Profiles in Criminal Proceedings and for Identifying Unknown or Missing Persons (DNA Profiles Act) (hereinafter "the Draft Amendments").
2. On 9 June 2021, OSCE/ODIHR responded to this request, confirming the Office's readiness to prepare a legal opinion on the compliance of these draft amendments with international human rights standards and OSCE human dimension commitments.
3. This Opinion was prepared in response to the above request. OSCE/ODIHR conducted this assessment within its mandate to assist OSCE participating States in the implementation of their OSCE commitments.

II. SCOPE OF THE OPINION

4. The scope of this Opinion covers only the Draft Amendments submitted for review. Thus limited, the Opinion does not constitute a full and comprehensive review of the entire legal and institutional framework regulating DNA profiling in Switzerland.
5. The Opinion raises key issues and provides indications of areas of concern. In the interest of conciseness, it focuses more on those provisions that require amendments or improvements than on the positive aspects of the Draft Amendments. The ensuing legal analysis is based on international and regional human rights and rule of law standards, norms and recommendations as well as relevant OSCE human dimension commitments. The Opinion also highlights, as appropriate, good practices from other OSCE participating States in this field. When referring to national legislation, OSCE/ODIHR does not advocate for any specific country model; it rather focuses on providing clear information about applicable international standards while illustrating how they are implemented in practice in certain national laws. Any country example should always be approached with caution since it cannot necessarily be replicated in another country and has always to be considered in light of the broader national institutional and legal framework, as well as country context and political culture.
6. Moreover, in accordance with the *Convention on the Elimination of All Forms of Discrimination against Women*[1], the *2004 OSCE Action Plan for the Promotion of Gender Equality*[2], as well as commitments to mainstream gender into OSCE activities, programmes and projects, the Opinion integrates, as appropriate, a gender and diversity perspective.
7. This Opinion is based on an unofficial English translation of the Draft Amendments commissioned by the OSCE/ODIHR, which is attached to this document as an Annex. Errors from translation may result. Should the Opinion be translated in another language, the English version shall prevail.

1 UN Convention on the Elimination of All Forms of Discrimination against Women, adopted by General Assembly resolution 34/180 on 18 December 1979. Ukraine deposited its instrument of ratification of this Convention on 12 March 1981.
2 See *OSCE Action Plan for the Promotion of Gender Equality*, adopted by Decision No. 14/04, MC.DEC/14/04 (2004), par 32.

8. In view of the above, OSCE/ODIHR would like to stress that this Opinion does not prevent OSCE/ODIHR from formulating additional written or oral recommendations or comments on respective subject matters in Switzerland in the future.

III. LEGAL ANALYSIS AND RECOMMENDATIONS

1. DNA PROFILING IN CRIMINAL PROCEDURE AND RELATED INTERNATIONAL STANDARDS AND OSCE HUMAN DIMENSION COMMITMENTS

9. DNA[3] technologies are used in, among others, criminal proceedings, to help identify perpetrators of crimes. By comparing genetic profiles extracted from biological samples found in substances collected from a specific site, object or person thought to be associated with a crime, forensic scientists seek to determine the likelihood that such samples come from a particular person (e.g., from a suspect, or victim, of a specific crime). Biological substances collected at crime scenes—such as blood, hair, semen, urine, skin, saliva, sweat and tears—all contain DNA.[4] These genetic profiles may then be compared to DNA profiles from known individuals or reference profiles stored in DNA databases to identify the respective person. In some countries, it is also permissible to expand the search to identify potential familial relationships between an individual in a DNA database and an unidentified individual whose DNA is found at a crime scene (familial DNA searching or relationship referencing).[5] DNA analysis is also used for the identification of deceased persons and human remains and to help resolve cases of missing persons.[6]

10. Standard DNA profiling aims to assist in the identification of individuals on the basis of such DNA but reveals nothing about personal characteristics or traits of the respective individual, other than their sex. By contrast, recent years have seen the emergence of additional technologies, such as phenotyping, which focus more on analysing unknown DNA samples to gain more information on a particular perpetrator's observable characteristics.[7]

11. At the international level, the United Nations Educational, Scientific and Cultural Organization (hereinafter "UNESCO") is responsible for studying, among others, the consequences of scientific and technological progress in the fields of biology and genetics. Thus, the General Conference of the UNESCO, in Article 2 of its Universal Declaration on the Human Genome and Human Rights, has emphasized everyone's right

[3] DNA stands for deoxyribonucleic acid; it is the chemical found in virtually every cell in the body and the genetic information therein, which is in the form of a code or language, determines physical characteristics and directs all the chemical processes in the body, see European Court of Human Rights (ECtHR), *S and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 10, footnote 1.

[4] For more information on this topic, see Helen Machado, Rafaela Granja, *DNA Technologies in Criminal Investigation and Courts*, in: Forensic Genetics in the Governance of Crime, 2020, p. 47.

[5] For more information on this topic, see Emily Niedzwiecki, Sara Debus-Sherrill, Michael B. Field, *Understanding Familial DNA Searching: Coming to a Consensus on Terminology*, ICF International, 2016.

[6] International Committee of the Red Cross, *Guidelines for the Use of Forensic Genetics in Investigations into Human Rights and International Humanitarian Law Investigations*, 2020.

[7] For more information on this topic, see Gabrielle Samuel, Barbara Prainsack, *Forensic DNA phenotyping in Europe: views "on the ground" from those who have a professional stake in the technology*, New Genetics and Society, 2019, Vol. 38, No. 2, 119–141 (122).

to respect for their dignity and rights regardless of their genetic characteristics.[8] In the same provision, the UNESCO has stated that such "dignity makes it imperative not to reduce individuals to their genetic characteristics and to respect their uniqueness and diversity".

12. This principle is echoed in Article 3 of the UNESCO's International Declaration on Human Genetic Data.[9] The Declaration aims to ensure the respect of human dignity and the protection of human rights and fundamental freedoms in "the collection, processing, use and storage of human genetic data, human proteomic data and of the biological samples from which they are derived" (Article 1 a). This includes non-discrimination and non-stigmatization of individuals, families, groups or communities (Article 7). This Declaration further identifies key human rights principles related specifically to the collection, processing, use and storage respectively of genetic data.

13. A number of the above principles are included in the UNESCO's Universal Declaration on Bioethics and Human Rights,[10] which addresses ethical issues related to medicine, life sciences and associated technologies as applied to human beings. Additional principles contained in this Declaration include the maximization of benefits and minimization of harm (Article 4) and personal autonomy (Article 5).

14. The UN Human Rights Council's Resolution on Forensic Genetics and Human Rights encourages states to apply forensic genetics in a manner that complies with international standards accepted by the scientific community in relation to quality assurance and control, and to ensure, where appropriate, the utmost respect for the principles of protection and confidentiality of information and restricted access to such information in accordance with domestic law.[11]

15. The UN International Covenant on Civil and Political Rights (hereinafter "ICCPR") also protects against "unlawful or arbitrary interference" with the right to privacy in Article 17.[12] In the context of criminal investigations, the right to be presumed innocent until proven guilty (Article 14 par 2 of the ICCPR) is likewise of relevance.

16. Moreover, based on the obligations to prohibit, eliminate and protect against racial discrimination found in Articles 5 and 6 of the UN Convention on the Elimination of All Forms of Racial Discrimination (hereinafter "CERD"),[13] the UN Committee on the Elimination of Racial Discrimination (hereinafter "CERD Committee") has noted that the results of DNA testing may lead to profiling and has emphasized that there are no direct linkages between an individual's DNA composition and their ethnicity or nationality. The CERD Committee has also deplored discriminatory police practices against certain groups as a result of DNA profiling.[14]

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[8] United Nations Educational, Scientific and Cultural Organization (UNESCO), Universal Declaration on the Human Genome and Human Rights, adopted by the General Conference on 11 November 1997.

[9] UNESCO, International Declaration on Human Genetic Data, adopted by the General Conference on 16 October 2003.

[10] UNESCO, Universal Declaration on Bioethics and Human Rights, adopted by the General Conference on 19 October 2005.

[11] UN Human Rights Council, Resolution 15/5 on forensic genetics and human rights, A/HRC/RES/15/5, 6 October 2010, par 5.

[12] International Covenant on Civil and Political Rights adopted by the UN General Assembly by resolution 2200A (XXI) of 16 December 1966. Switzerland ratified the Covenant on 18 June 1992.

[13] International Convention on the Elimination of All Forms of Racial Discrimination, adopted by the General Assembly of the United Nations in resolution 2106 (XX) of 21 December 1965 and signed on 7 March 1966. Switzerland acceded to the CERD on 29 November 1994.

[14] UN Committee on the Elimination of Racial Discrimination (CERD Committee), General Recommendation No. 36, Preventing and Combating Racial Profiling by Law Enforcement Officials, CERD/C/GC/36, 24 November 2020, par 36. See also General Recommendation No. 31 on the prevention of racial discrimination in the administration and functioning of the criminal justice system, A/60/18, pp. 98-108, 2005.

17. With respect to data involving children, Articles 2 and 16 the UN Convention on the Rights of the Child[15] protect against discrimination and against arbitrary and unlawful interference with the right to privacy respectively, and Article 40 par 2b guarantees the presumption of innocence. Similarly, regarding data of persons with disabilities, Articles 5 (equality and non-discrimination) and 22 (respect to privacy) of the UN Convention on the Rights of Persons with Disabilities respectively need to be taken into account.[16]

18. At the Council of Europe level, the European Convention on Human Rights and Fundamental Freedoms (hereinafter "ECHR") protects the right to private life under Article 8, and the right to be presumed innocent until proven guilty by law under Article 6 par 2.[17] In relation to (mostly) the right to private life, the European Court of Human Rights (hereinafter "ECtHR") has developed comprehensive case law with respect to the collecting, processing and retention of DNA profiles; in this regard, the Court has found that "personal data is of fundamental importance to a person's enjoyment of his or her right to respect for private and family life, as guaranteed by Article 8 of the Convention".[18]

19. Furthermore, the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine[19] contains similar principles as the UNESCO declarations, but is focused largely on genetic testing for health purposes. At the same time, the Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data[20] contains special requirements concerning the obtention and storing of data (Articles 5 and 7), as well as important safeguards for individual data subjects (Article 8). Article 9 of this Convention contains exceptions in cases where the obtention and processing of data are necessary to, among others, protect state security, public safety, the monetary interests of a state, or to suppress criminal offences.[21]

20. Additionally, various bodies of the Council of Europe, notably the Committee of Ministers and the Parliamentary Assembly, have issued recommendations on DNA

[15] UN Convention on the Rights of the Child, adopted by UN General Assembly resolution 44/25 of 20 November 1989. Switzerland ratified the Convention on 24 February 1997.

[16] UN Convention on the Rights of Persons with Disabilities was adopted on 13 December 2006 during by General Assembly resolution A/RES/61/106. Switzerland acceded to it on 15 April 2014.

[17] The Council of Europe's Convention for the Protection of Human Rights and Fundamental Freedoms entered into force on 3 September 1953. Switzerland ratified the Convention on 28 November 1974.

[18] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 103.

[19] Council of Europe, Convention for the protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine (ETS No. 164), adopted on 4 April 1997, entry into force on 1 December 1999. Switzerland ratified this Convention on 24 July 2008.

[20] Council of Europe, Convention for the Protection of Individuals with regard to Automatic Processing of Personal Data ((ETS No. 108). The Convention was adopted on 28 January 1981 and entered into force on 1 October 1985. Switzerland signed and ratified the Convention on 2 October 1997.

[21] On 18 May 2018, the Council of Europe Committee of Ministers adopted Protocol updating the Convention for the Protection of Individuals with regard to the Automatic Processing of Personal Data (Convention 108+). The Protocol has been open for signatures since October 2018 and will enter into effect upon ratification by all parties to the original Convention, or on 11 October 2023 if there are 38 parties to the Protocol at this date (seehttps://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/108?module=treaty-detail&treatynum=223).

analysis in the criminal justice system,[22] biotechnologies,[23] the protection of the human genome,[24] and the human rights considerations of biometrics.[25]

21. At the OSCE level, OSCE participating States reconfirmed the right to protection of people's private lives in the 1991 Moscow Document.[26] Also, the right to be presumed innocent until proved guilty according to law is specified in the 1990 Copenhagen Document.[27] Numerous OSCE commitments also attest to OSCE participating States' condemnation of and attempts to counter racism and discrimination on a variety of grounds including race and ethnic origin.[28]

2. BACKGROUND

22. The Swiss Constitution protects human dignity (Article 7), as well as the right to privacy, which includes the right to be protected against the misuse of one's personal data (Article 13, pars 1 and 2). The right to be presumed innocent until found guilty by a legally enforceable judgment is set out in Article 32 of the Constitution. According to Article 35, human rights are to be upheld throughout the legal system. Article 36 stipulates that human rights may be restricted if restrictions have a legal basis, and if they are justified in the public interest or for the protection of the fundamental rights of others. Any restrictions must be proportionate, and the essence of fundamental rights is sacrosanct.

23. Article 119 of the Constitution stipulates that "[h]uman beings shall be protected against the misuse of reproductive medicine and gene technology", and prescribes that legislation on, among others, genetic material, shall ensure the protection of human dignity, privacy and the family. According to Article 119 par 2 (f), the genetic material of a person may only be analyzed, registered or made public with the consent of the person concerned or if the law so provides.

24. The current DNA Profiles Act was passed in 2003. The Act regulates the taking of DNA samples, and how they are processed and analyzed, but also contains a specific section on data protection and the rights of persons whose DNA profiles have been obtained. The Act thus complements relevant provisions of the Criminal Procedure Code on the taking of evidence and on data processing and management.[29] According to Article 2 par 2 of the Act, DNA analysis may only be used to determine the gender of the person concerned; it may not be used to determine their health or other personal characteristics.

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[22] Council of Europe, *Recommendation 92 (1) of the Committee of Ministers to member States on the use of analysis of deoxyribonucleic acid (DNA) within the framework of the criminal justice system*, adopted by the Committee of Ministers on 10 February 1992 at the 470th meeting of the Ministers' Deputies.

[23] Council of Europe, *Recommendation 1468 (2000) of the Parliamentary Assembly on Biotechnologies*, adopted by Assembly on 29 June 2000.

[24] Council of Europe, *Recommendation 1512 (2001) of the Parliamentary Assembly on Protection of the Human Genome by the Council of Europe*, adopted by Assembly on 25 April 2001.

[25] Council of Europe, *Recommendation 1960 (2011) of the Parliamentary Assembly on the Need for a Global Consideration of the Human Rights Implications of Biometrics*, adopted by the Standing Committee on 11 March 2011.

[26] OSCE, Document of the Moscow Meeting of the Conference of the Human Dimension, Moscow, 3 October 1991, par 24.

[27] OSCE, Document of the Copenhagen Meeting on the Conference of the Human Dimension of the CSCE, Copenhagen, 29 June 1990, par 5.19.

[28] See, among others, OSCE, Ministerial Council Decision 5/01 of 4 December 2001 and Ministerial Council Decision No. 4/03 on Tolerance and Non-Discrimination of 2 December 2003.

[29] See, in particular, Title 2, Chapter 8, Section 8 (data processing) and Section 9 (management, inspection and retention of case files) of the Criminal Procedure Code, as well as Title 4 on all matters pertaining to the taking and use of evidence.

25. The Draft Amendments specify that DNA profiling may be used for any purpose provided in the Criminal Procedure Code as well as for purposes of identification outside of criminal procedure. They also seek to add further means of DNA profiling, namely kinship matching of DNA (i.e. searching for persons related to the person whose DNA trace was found at a crime scene), and phenotyping, meaning the analysis of special DNA markers to determine individuals' eye, hair, or skin colour, biogeographical origins and age. The Federal Council (*Bundesrat*, i.e. the Federal Government) may define further externally visible traits. Furthermore, the Draft Amendments regulate surplus information gained, as well as the destruction of samples, and overall processing of DNA profiles. The retention periods and deletion of DNA profiles are likewise changed from individualized retention periods determined for each individual case to fixed retention periods that depend on the type and severity of the criminal sanction involved. Retention periods may be extended by decision of a judicial authority. The Draft Amendments also involve adding provisions previously contained in the DNA Profiles Act to the Criminal Procedure Code, in a bid to streamline both pieces of legislation, as well as the Military Criminal Procedure Code for cases falling under the scope of that Code.[30]

26. In December 2020, the Draft Amendments were introduced to the National Council (*Nationalrat*, i.e. the Federal Parliament), which adopted the Draft Amendments with some changes in May 2021. The Draft Amendments currently appear to be pending before the Council of States (*Ständerat*), the second chamber of parliament representing the Swiss cantons.

3. GENERAL REMARKS ON DNA PROFILING

27. Over the last decades, forensic DNA profiling technologies have become increasingly important elements of criminal investigations. This has become possible due to a combination of technological, organizational and legal developments. Notably, improvements in the DNA collection, extraction and analysis process and the establishment of national and international laboratory standards have increased judicial acceptance of the robustness of DNA evidence and have led to the growth of national DNA databases as a means of storing, searching and comparing DNA profiles deriving from samples taken at crime scenes with those of samples taken from known individuals, retained under a variety of legal regimes.[31]

28. While such technologies are undoubtedly useful to help solve criminal cases, there is now a greater realisation of the legal, social and ethical consequences of forensic technologies and the police powers required to utilize them.[32] It is therefore essential that the public interest in criminal investigations is balanced with the rights and interests of the individuals involved, and that sufficient attention is paid to their dignity, right to private

[30] Explanatory Note, p. 20 and following.

[31] Robin Williams and Mathias Wienroth, *Social and Ethical Aspects of Forensic Genetics: A Critical Review*, Forensic Science Review 2017, 29(2), p. 146.

[32] See, e.g., the Scottish Biometrics Commissioner Act 2020, Section 2(1) stating that the function of the new Commissioner is to support and promote the adoption of 'lawful, effective and ethical practices in relation to the acquisition, retention, use and destruction of biometric data for criminal justice and police purposes'.

life, including their bodily integrity[33] and other privacy rights,[34] as well as fair trial guarantees.[35]

29. The need for protection is directly linked to the invasiveness of the action, e.g. whether a DNA sample was taken from an individual or from a crime scene; thus, samples taken directly from individuals usually require their consent, although this may not always be required in cases where persons are suspected of a crime (in such cases, the lack of consent may be replaced with the requisite official and justified authorization of the prosecution).[36] At the same time, the respective individuals who gave consent for samples to be taken need to be aware of how their DNA sample is being put to use and have the right to withdraw their consent in cases where they do not agree with such use.[37]

30. The privacy, ethical, and financial costs of DNA profiling, i.e. the analysis of genetic patterns or profiles obtained from biological samples, and databasing of information gathered further suggests a need to develop databases progressively, with decisions regarding their constitution based upon realistic of the actual impact of DNA profiling evidence. Moreover, data generated through DNA profiling in the context of criminal proceedings should be kept securely and confidentially, and fairly processed following relevant legal and regulatory frameworks for the purposes of specific criminal investigation and prosecution. The integrity of the process can be safeguarded by creating independent oversight bodies, composed of a variety of stakeholders, which would help ensure that public security and human rights interests are adequately weighted throughout.[38]

31. Once an investigation is completed, data that is no longer needed, in particular data deriving from victims or witnesses of a crime, should be destroyed. The rules on retention and ensuing destruction of data will vary depending on whether it is based on samples taken from persons arrested, persons charged with a crime, or persons convicted of a crime. The age of the respective suspect or convicted perpetrator, and the nature of the crime will also be relevant here, as will its source (whether this is a crime scene or whether a sample is taken from a suspect or convicted person).[39]

4. SCOPE AND PURPOSE OF THE ACT

32. In the current DNA Profiles Act, Article 1 sets out the scope and purpose of the Act. The Draft Amendments introduce two new types of DNA profiling to par 1 of Article 1,

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[33] See ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 66, with further references, specifying that the notion of private life within the meaning of Article 8 of the ECHR, also covers the physical integrity of a person.

[34] See Nuffield Council on Bioethics, *Annual Report 2007*, p. 9, where the Council focused on certain principles that needed to be respected when the State exercises power over citizens, such as the respect of personal liberty; the maintenance of autonomy of the individual; personal privacy; informed consent and equal treatment.

[35] See also Article 1a of the UNESCO International Declaration on Human Genetic Data on the importance of ensuring respect for human dignity and the protection of human rights and fundamental freedoms when collecting, processing and storing human genetic data, human proteomic data and biological samples from which they are derived.

[36] See, e.g., Section 81f, par 1 of the German Criminal Procedure Code, stating that without the written consent of the person concerned, the molecular and genetic analysis of DNA samples may be ordered only by a court and, in exigent circumstances, by the public prosecution office and its investigators. A person who consents is to be instructed as to the purpose for which the data to be obtained will be used.

[37] See, for further information, Robin Williams and Mathias Wienroth, *Social and Ethical Aspects of Forensic Genetics: A Critical Review*, Forensic Science Review 2017, 29(2), p. 153.

[38] As proposed by Carole McCartney and Aaron Amankwaa, *Submission on the Scottish Biometrics Commissioner Bill*, 2019, p. 1.

[39] For further information on the issue, see Robin Williams and Mathias Wienroth, *Social and Ethical Aspects of Forensic Genetics: A Critical Review*, Forensic Science Review 2017, 29(2), p. 156.

namely kinship matching and phenotyping in criminal proceedings; phenotyping shall likewise be used for the identification of deceased persons outside of criminal proceedings. It is assumed that the current par 2 on the purpose of the DNA Profiles Act is retained; if not, then this paragraph or a similar provision should be reinstated, to ensure that there is a provision outlining the main purposes of this Act, while bearing in mind the considerations set out in pars 33 and 34 *infra*.

33. Due to the inherited nature of DNA and the fact that family members share more genetic characteristics than non-related individuals, DNA profiling may be used to identify potential familial relationships between an individual in a DNA database and an unidentified individual whose DNA is found at a crime scene.[40] This process of expanding DNA searches to identify family members is what the term "kinship matching", set out in Article 1 and other provisions in the Draft Amendments, refers to.

34. Phenotyping, on the other hand, is an emerging technology that seeks to make probabilistic inferences regarding a person's observable characteristics ("phenotype") from their anonymous DNA sample.[41] Phenotypic traits are not determined by one gene but by a complex interplay between many genetic markers as well as the environment. At present, some traits such as appearance (also referred to as externally visible characteristics, for example, hair, skin and eye colour), biological age and bio-geographical ancestry (the estimation of the geographical origin of a person's genetic ancestors at the continental level) can be inferred, in certain circumstances, with high enough probabilities to make them useful in the criminal justice system.[42]

35. Both kinship matching and phenotyping relate to the use and storage of DNA, which affects key human rights of the individuals concerned, primarily the right to privacy, or private life,[43] as set out in Article 17 of the ICCPR and Article 8 par 2 of the ECHR, and the right to be presumed innocent under Article 14 par 2 of the ICCPR and Article 6 par 2 of the ECHR. Additionally, notably with respect to phenotyping, the right to freedom from discrimination under Article 2 par 2 of the ICCPR and Article 14 of the ECHR as well as its Protocol 12 may also be relevant. For further discussion on these matters, see pars 39-40 and pars 48-49 *infra*.

36. The Draft Amendments also include in the scope of the Act under Article 1 par 1 the processing of DNA profiles in a federal information system, which is already included in the current DNA Profiles Act. There is, however, no mention of specific elements of the operation of databases, namely inclusion, retention, use, deletion and searching of DNA databases as part of the scope of the areas regulated by the Act. **It is advised to supplement Article 1 par 1 accordingly, to enhance the clarity of this provision outlining the scope of the Act.**

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[40] Emily Niedzwiecki, Sara Debus-Sherrill, Michael B. Field, *Understanding Familial DNA Searching: Coming to a Consensus on Terminology*, ICF International, 2016.

[41] Gabrielle Samuel, Barbara Prainsack, *Forensic DNA phenotyping in Europe: views "on the ground" from those who have a professional stake in the technology*, New Genetics and Society, 2019, Vol. 38, No. 2, 119–141 (119).

[42] Gabrielle Samuel, Barbara Prainsack, *Forensic DNA phenotyping in Europe: views "on the ground" from those who have a professional stake in the technology*, New Genetics and Society, 2019, Vol. 38, No. 2, 119–141 (120).

[43] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, pars 74-75, where the Court noted that even though DNA profiles contain a more limited amount of personal information extracted from cellular samples in a coded form than cellular samples themselves, they do contain substantial amounts of unique personal data. Given that DNA profiles had the capacity to provide a means of identifying genetic relationships between individuals, the Court found that this in itself was sufficient to conclude that the retention of DNA profiles interfered with the right to the private life.

37. According to par 2 of Article 1, the purpose of the Act is to improve the efficiency of criminal prosecution procedures,[44] and, in particular, "to identify suspects and exonerate other persons from suspicion; to detect more rapidly links between criminal offenses and thus identify, in particular, criminal groups operating on an organized basis, as well as serial and repeat offenders, [and] by systematically evaluating biological material, and to facilitate the establishment of the facts". These formulations are quite clear and unambiguous, which is positive.

38. At the same time, the focus on "efficiency" when outlining the purpose of the Act, while an understandable and commendable aim, should not be the sole, or main purpose of legislation on policing and justice; rule of law and human rights considerations are equally important in this respect. **The DNA Profiles Act should likewise include reference and attach the same weight to a robust quality assurance and control of the data that is being processed[45] (including accreditation to the highest possible standards and certification of professionals involved in DNA profiling), to ensure reliability and accountability, and at the same time follow a rule of law and human rights compliant approach throughout**. Other factors such as transparency are also vital in this context, which will help enhance public acceptance of and confidence in the criminal justice system. **It is recommended to supplement the Draft Amendments accordingly.**

RECOMMENDATION A.

To add specific elements on the operation of DNA databases to the scope of the Act under Article 1 par 1 and include additional aims of the Act, such as quality assurance and control, accountability and transparency, while specifying the importance of following a human rights and rule of law compliant approach throughout.

5. DNA PROFILING AND ANALYSIS

39. Article 2 of the DNA Profiles Act outlines DNA profiling and use and defines a DNA profile as "a combination of letters and numbers unique to an individual that is obtained from the non-coding parts of DNA genetic material with the help of molecular biology techniques". This definition is somewhat misleading, as it implies that DNA profiles per se are "unique" or specific to only one individual. However, DNA profiling does not produce individualized data, but rather probabilistic intelligence or evidence. Thus, referring to the donors of a trace retrieved from a crime scene as "suspects", as done in the Explanatory Note,[46] is also inaccurate, as a DNA trace may relate to any number of individuals who will never be considered as "suspects", including victims, witnesses, and anyone who may have been present at the scene before or after the alleged crime. Moreover, it is important to bear in mind that DNA samples may be mixed, contaminated, not processed correctly, or transferred from one place to another via other objects or

[44] See also Explanatory Note, p. 6.

[45] See Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council, *Strengthening Forensic Science in the United States: A Path Forward*, 2009, Recommendation 8 on p. 215.

[46] See, e.g., Explanatory Note, p. 33.

individuals.[47] Thus, scientifically as well as legally, DNA profiles retrieved from crime scenes can only be attributed to "suspects" if corroborative evidence justifies this designation. It is important to bear these considerations in mind when drafting or amending legislation such as the Act.

40. Additionally, due to the fact that in forensic profiling, only a subset of a human genome is sampled, there is still a chance of a match between unrelated individuals, even though the probability of this is very low.[48] **It is thus recommended to reword Article 2, to indicate that the letters and numbers making up a DNA profile may distinguish individuals with a high degree of certainty**. This will help avoid the impression that any person found to match a DNA trace profile will definitely be the donor or suspect.

> **RECOMMENDATION B.**
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> To revise Article 2, to indicate that the letters and numbers making up a DNA profile may distinguish individuals with a high degree of certainty.

5.1. Kinship Matching

41. The Draft Amendments introduce a new Article 2a to the Act on kinship matching, which is defined as a "search in the information system […] for persons in connection with a crime investigation who might be related to the person providing the trace on account of the similarity of their DNA profiles. As stated in the Explanatory Note,[49] the Federal Criminal Court had already ruled in 2015 that the current DNA Profiling Act - without expressly providing for such special searches - also allows them to be conducted.[50] Apparently, the practice of cantons has so far been to only use this type of relationship referencing to investigate serious criminal offences.[51]

42. It has been recognized that the use and storage of a person's DNA affects the right to privacy or private life,[52] which is protected both by Article 17 of the ICCPR and by Article 8 par 2 of the ECHR. In its judgment in the case of *S and Marper v the United Kingdom*, the ECtHR referred specifically to familial searching or kinship matching and found that DNA profiles' "capacity to provide a means of identifying genetic relationships between individuals" was in itself sufficient to conclude that their retention interfered with the right to the private life of the individuals concerned.[53] Such interferences are only justified if they are not "unlawful or arbitrary", more specifically,

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[47] See Kyriakos N. Kotsoglou, Carole McCartney, *To the exclusion of all others? DNA profile and transfer mechanics—R v Jones (William Francis) [2020]*, International Journal of Evidence and Proof (2021), 25 (2), 1-6.

[48] See Peter Gill, *Misleading DNA Evidence: Reasons for Miscarriage of Justice*, 2014, describing the example of Raymond Easton, arrested and charged with a burglary after a DNA sample from the crime scene matched his DNA profile in the UK national DNA database, despite the fact that the burglary had taken place in a location that was more than 150 miles away from his hometown, and that Mr. Easton was in the advanced stages of Parkinson's disease, and was unable to walk more than ten meters without help. Mr. Easton spent several months in custody before his solicitor persuaded police to run further DNA tests, which eliminated him. Further

[49] See Explanatory Note, p. 16.

[50] Federal Criminal Court, judgment in the case of the Public Prosecutor of the Canton of Geneva against the Federal Police Office of 6 October 2015, TPF 2015 104.

[51] See Explanatory Note, p. 36.

[52] See ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, pars 74-75.

[53] Ibid.

if they are based on law, follow a legitimate aim, and are necessary in a democratic society[54] to meet this aim.

43. While the legitimate aim of crime prevention and resolution is noted, it is not clear why this practice of using kinship matching, or familial searching or relationship referencing, as it is also known, to investigate serious criminal offences now needs to be expanded to all felonies, pursuant to Article 258a of the Criminal Procedure Code, as revised by the Draft Amendments.[55] The rationale for this step is also not convincingly explained in the Explanatory Note, which admits that in approximately fifteen of such search procedures carried out in the DNA profile information system at the request of the relevant Office of the Attorney General, familial searches or relationship references have, as far as can be seen, not led to investigative successes.[56] Moreover, during consultations on the Draft Amendments, the majority of respondents were found to not be in favour of search procedures by familial searching/relationship reference.[57] Given the sensitivities involved and the fact that attempting to identify a potential suspect by searching DNA profiles of possible family members will constitute interferences with these persons' rights to private life,[58] it would be advisable **to review the necessity and proportionality of such a step, in particular the decision to extend such searches to all felonies (as opposed to only serious criminal offences).** In any event, introducing kinship matching or familial searching/relationship referencing to the DNA Profiles Act should only be undertaken following an in-depth and evidence-based impact assessment of the current practice (see also Section 9 of this Opinion *infra*).

44. Furthermore, as stated above (see par 39), a DNA match does not necessarily mean that the requisite identification has been made, given that DNA profiles are not unique; there may be other valid reasons for matching DNA profiles, e.g. adventitious matches, which may occur in the cases of partial or mixed trace profiles and profiles of biologically related individuals. It is thus important to distinguish between the DNA trace profile, the donor of the trace, and any person with a matching or closely matching profile. To reflect these possibilities, and in case it is decided to retain Article 2a in the Draft Amendments, it is recommended to **change the wording of Article 2a, to refer to persons who have a DNA profile similar to the DNA trace profile and/or who may have kinship with the donor**.

45. The donor of the DNA trace profile also needs to be treated separately from anybody who may share a similar profile, to meet the principle of presumption of innocence until

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[54] See, instead of others, ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 101, which reiterates the case law of the ECtHR stating that an interference will be considered "necessary in a democratic society" for a legitimate aim if it answers a "pressing social need" and, in particular, if it is proportionate to the legitimate aim pursued and if the reasons adduced by the national authorities to justify it are "relevant and sufficient".

[55] See, in this context, Section 81h of the German Criminal Procedure Code, which only allows this type of familial searching or relationship referencing if certain facts give rise to the suspicion that serious criminal offences against life, physical integrity, personal liberty or sexual self-determination have been committed, if the respective individuals have provided their written consent, and if this is necessary to ascertain whether DNA trace material originated from such persons or from their relatives in the direct line or in the collateral line up to the third degree, provided that the measure is not disproportionate to the severity of the offence, in particular in view of the number of persons affected by the measure. These measures require a court order, and the persons concerned shall be informed about the further use of their data samples. See also Article 151da of the Dutch Criminal Procedure Code, according to which familial searching or relationship referencing is only possible following a written authorization of the examining magistrate, in the case of suspicion of a serious criminal offence, as specified in this provision.

[56] See Explanatory Note, p. 17. This mirrors the situation in the United Kingdom, where since 2012, of the 120 cases in which familial searches were conducted, only 9 cases reported successes, see Biometrics and Forensics Ethics Group, *Should we be making use of genetic genealogy to assist in solving crime? A report on the feasibility of such methods in the UK*, 2020.

[57] See Explanatory Note, p. 25.

[58] See, in this context, ECtHR, *Gaughran v the United Kingdom*, application no. 45245/15, judgment of 13 February 2020, par 81, noting that the use of DNA profiles for familial searching with a view to identifying a possible genetic relationship between individuals is of a highly sensitive nature and that there is thus a need for very strict controls in this respect.

proven guilty. Additionally, further corroborating evidence and/or the assessment of the individual circumstances of a case will be required to prove identity. Generally, and bearing in mind the privacy and other rights of the affected persons, it **is recommended that the Draft Amendments (in Article 2a or elsewhere) introduce criteria outlining in which cases it is considered necessary and proportionate to order searches involving kinship matching/relationship referencing.** Similarly, amendments to the Criminal Procedure Code introducing Article 258a, and amendments to the Military Criminal Procedure Code, introducing Article 73w, should, as the legal bases for ordering kinship matches in the context of criminal investigations into felonies, reflect such criteria, either directly or by reference to the DNA Profiles Act.

46. In this context, the Explanatory Note specifies that "scientific-technical parameters" of relationship referencing will be defined in a binding manner, but not in the DNA Profiles Act or other primary legislation, to ensure that "developments in forensics can also be taken into account". Rather, the Federal Council, responsible for issuing implementing provisions regulating kinship matching in greater detail under a new Article 22 g. in the DNA Profiles Act, will provide for such requirements in legislation on the enforcement of the Act at the ordinance level.[59] This is welcome per se, as appropriate safeguards need to be in place to protect personal data such as DNA profiles from misuse and abuse; such safeguards are all the more important where the protection of personal data undergoing automatic processing is concerned, not least when such data are used for police purposes.[60] These considerations are especially valid in relation to the protection of DNA information, which contains a person's genetic make-up, which is of great importance to both the persons concerned and their families.[61]

47. At the same time, such parameters or safeguards should not be limited to scientific or technical considerations; rather, **issues of procedural justice, due process and acceptable policing should also be borne in mind when drafting the ordinances, to maintain public confidence and trust. Additionally, the respective ordinances setting out process and operationalization of relationship referencing should be subject to transparent public debates, and also to proper oversight mechanisms**,[62] which should be independent from any policing agency or forensic company.[63]

RECOMMENDATION C.

To review the necessity and proportionality of extending kinship matching to all felonies, pursuant to the draft Article 258a of the Criminal Procedure Code.

To specify in draft Article 2a of the DNA Profiles Act that kinship matching refers to persons who have a DNA profile similar to the DNA trace profile and/or who may have kinship with the donor and include in this provision guiding criteria outlining in which cases it will be considered necessary and proportionate to order searches involving kinship matching.

[59] See Explanatory Note, p. 37.

[60] ECtHR, *Peruzzo and Martens v Germany*, application nos. 7841/08 and 57900/12, judgment of 4 June 2013, par 42. See also *Aycaguer v. France*, application no. 8806/12 , judgment of 22 June 2017, par 38.

[61] ECtHR, *Peruzzo and Martens v Germany*, application nos. 7841/08 and 57900/12, judgment of 4 June 2013, par 42.

[62] See, in this context, Forensic Genetics Policy Initiative, Establishing Best Practice for Forensic DNA Databases, 2017, p. 21.

[63] See, e.g., the United Kingdom's Home Office Biometrics and Forensics Ethics Group, with more information at Biometrics and Forensics Ethics Group - GOV.UK (www.gov.uk).

5.2. Phenotyping

48. Phenotyping is introduced to the DNA Profiles Act via a new Article 2b. It is defined as the analysis of special DNA markers by which information can be obtained from a trace about a person's externally visible traits. According to par 2 of the provision, this type of analysis may be used to determine eye, hair and skin colour of a person, biogeographical origins, or age. Health-related or personal traits, such as character, behaviour or intelligence, may not be evaluated (par 3).

49. At the outset, it should be noted that the definition of the proposed Article 2b is somewhat inaccurate, as it speaks about information obtained from a trace about a person's "externally visible traits". While this is true for eye, hair and skin colour, the biogeographical origins are not an externally visible trait; depending on the individual person, the same is true for age. **It is thus recommended to revise the definition, to take into consideration traces concerning a person's non-visible traits.**[64]

50. Moreover, the grouping of persons according to their biogeographical ancestry is somewhat problematic in itself, given that such terms often lend themselves to multiple meanings within the various fields of genetics, different domains of biological sciences and medicine, and between scientists and the general public. Some of these may be based on scientifically misleading, outmoded or even racist perspectives derived from the history of science.[65]

51. In its judgment in the case of *S. and Marper v the United Kingdom*, the ECtHR has found that the possibility of drawing inferences as to the ethnic origins of individuals or groups makes the retention of data samples all the more sensitive and prone to affecting the right to private life.[66] As also noted in this judgment, Article 6 of the CoE Data Protection Convention considers personal data revealing racial origin to be one of several special categories of data, which may not be processed automatically unless the relevant domestic legislation provides appropriate safeguards. While DNA markers derived from a biological trace found at a crime scene need to be distinguished from DNA samples taken directly from an individual, the process of phenotyping nevertheless may allow law enforcement to draw inferences as to the ethnic origins of individuals or groups. At a minimum, privacy considerations will arise with respect to individuals who might later be approached to be sampled because they have been identified as a member of a

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[64] At the same time, see Section 81e of the German Criminal Procedure Code, which permits the molecular and genetic analysis of blood samples or other cell tissue in order to establish a person's DNA profile, descent and sex, and the matching of these data with reference material, insofar as this is necessary to establish the facts relating to a criminal case. This provision does not permit the analysis of non-visible personal characteristics, in particular a person's biogeographic origin, as the Federal Constitutional Court has considered analyses that could permit the establishment of a person's personality profile based on relevant characteristics such as one's genetic make-up, character features or illnesses to be unconstitutional (judgment of 14 December 2000, -2 BvR 1741/99).

Similarly, see Articles 151d and 195f of the Dutch Criminal Procedure Code, which also permits DNA testing only insofar as it is aimed at establishing the sex, race or other externally observable personal characteristics of the unknown suspect or the unknown victim, and only in cases of certain more serious crimes set out explicitly in law. The DNA testing is only permissible following a prior court order and following the written consent of the suspect; in the interest of the investigation, and if there are serious suspicions against a suspect, the public prosecutor may also order DNA testing if the suspect refuses to provide written consent (Articles 151a and b).

See also the comparative study prepared by the Swiss Institute of Comparative Law on the Regulation of the Use of DNA in Law Enforcement, 2020, p. 89, citing Art. 2 par f of the Slovakian Act on the Use of DNA Analysis to Identify Individuals, which specifies that analytic processes analytic process of molecular biology and genetics shall be performed to predict visible phenotypic expressions, by analyzing coding regions of DNA molecules that contain information such as, for instance, hair colour, eye colour and skin pigmentation. Such analyses may only be performed on samples taken in connection with serious crimes, crimes against life and health, or against freedom and human dignity, or to identify a corpse or severed parts of a human body.

[65] For further information on this topic, see Ewan Birney, Michael Inouye, Jennifer Raff, Adam Rutherford, Aylwyn Scally, *The language of race, ethnicity, and ancestry in human genetic research*, Quantitative Biology, 2021.

[66] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 76.

particular population subgroup.[67] Additionally, this could carry with it the risk of discrimination, given that the data collected refers to groups, not individuals, which following the results of phenotyping may lead to increased police attention to specific groups of persons.

52. As stated in the previous section, according to Article 17 of the ICCPR, this kind of interference with the right to privacy of the individuals involved may not be "unlawful or arbitrary". Article 8 par 2 of the ECHR likewise states that interferences with the right to private life are only permissible if they are based on law, follow a legitimate aim, and are necessary in a democratic society to meet this aim.

53. While the legitimate aims are clearly the protection of public safety, the prevention of disorder and crime, as well as the protection of the human rights of others, the use of phenotyping again needs to be necessary to achieve this aim. The Explanatory Note states that phenotyping will allow more efficient investigations by "focusing more quickly on the possible group of perpetrators".[68] It is, however, doubtful whether speed and efficiency will truly be achieved through phenotyping, given that the Explanatory Note itself states that phenotyping will only be used to fight crimes once other investigative tools have been exhausted.[69] In this context, it is noted that this caveat is not included in Article 2b, nor is it mentioned in Article 258b of the Criminal Procedure Code and Article 73x of the Military Criminal Procedure on phenotyping. **To ensure that phenotyping will truly only be used as an *ultima ratio*, it is recommended to add this to the legal provisions mentioned above.**

54. Additionally, it needs to be borne in mind that phenotyping itself cannot identify an individual and may simply provide a further piece of intelligence to the investigators of a crime, perhaps to invigorate a stalled investigation. Given that phenotyping merely points investigators towards a pool from which a potential suspect may come, it is also not likely that this type of analysis will, by itself, bring an investigation to a swift resolution.

55. Moreover, the reliability of phenotyping needs to be assessed in a realistic manner. The output of phenotyping may not always constitute a clear categorization, and the results can often have little probative value, given that, at the most, such analyses may lead to conclusions with a 90% probability; thus, a test may lead to the conclusion that there is a 90% likelihood that a profile belongs to someone with red hair, but there remains a 10% chance that this person has a different hair colour. Likewise, if a test predicts a likelihood of 68% that a person has brown eyes, he or she may in fact have blue eyes; investigators thus need to be mindful that a perpetrator may in fact look very different from the predicted appearance.[70] Even if a prediction of appearance were to be 100% accurate, it is important to bear in mind that persons may also change/alter their appearance, which risks leading to a skewed investigation.[71]

56. While the reference in the Explanatory Note to scientific papers underpinning the reliability of phenotyping as an investigative tool is welcome, these scientific papers should also be evaluated with respect to their applicability to real world situations. Given

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[67] As described in further detail in Robin Williams and Mathias Wienroth, *Social and Ethical Aspects of Forensic Genetics: A Critical Review*, Forensic Science Review 2017, 29(2), p. 158.

[68] See Explanatory Note, p. 2.

[69] Explanatory Note, p. 73.

[70] As also specified by the National DNA Database Ethics Group (United Kingdom) (March 2017), *Ethical Dimensions of the Application of Next Generation Sequencing Technologies to Criminal Investigations*, par 7.3.

[71] As also pointed out in Scudder, Nathan, James Robertson, Sally F. Kelty, Simon J. Walsh, and Dennis McNevin. (2019), *A Law Enforcement Intelligence Framework for Use in Predictive DNA Phenotyping*, Australian Journal of Forensic Sciences 51 (sup1): 255–258.

that the scientific bases of such techniques remain contested, and have rarely been tested in "real world" investigations, such papers need to demonstrate how laboratory results may be transferred to police investigations in an effective, but also scientifically credible manner. As already stated in the context of DNA profiling in general, it should be borne in mind that samples retrieved from crime scenes may be degraded, contaminated or mixed with the DNA of other persons.

57. For this reason, **the technique needs to be supported by a proper regulatory infrastructure**, to mitigate the risks mentioned above. In particular, there need to be **strict procedures and multiple layers of decision-making in place prior to and during the use of phenotyping, with clear oversight and accountability mechanisms, involving independent, multi-stakeholder oversight bodies that are not linked to or answerable to the police or prosecution authorities.** At all times, care must be taken to ensure that investigations are not biased by the intelligence obtained, or led astray, while also retaining the trust and confidence of the communities being policed. This will require significant resources, and sophisticated approaches to operationalizing this technology.

58. According to the Explanatory Note, a second, subsidiary aim of phenotyping seems to be to test the reliability of witness statements by confirming or clarifying such a statement or invalidating it.[72] This raises important questions relating to the assessment of different forms of evidence, in particular as to **when the results of DNA phenotyping, which are of probabilistic value themselves, would be permitted to invalidate a witness statement. Ideally, these matters should be clarified in the text of the DNA Profiles Act, and in the two criminal procedure codes.**

59. Finally, as also noted by certain participants involved in public consultations on the Draft Amendments, grouping individuals based on their externally visible traits, but also based on their biogeographical origins, may involve the risk of racial profiling. Notably, it is unclear how reliable commercially available analysis kits are when used with different population groups, particularly as the underlying research for these kits was conducted on European population groups.[73] To avoid the risk of racial profiling, **measures need to be taken that enable the implementation of phenotyping in an ethically and societally responsible manner**.[74] Above all, it is important that certain ethnic groups targeted by phenotyping are not subjected to discrimination by the police, or by the wider public if the details of the results of phenotyping become public.[75] **Measures could include, among others, building privacy enhancing measures into the technology, as well as into legal and regulatory infrastructures and processes (privacy-by-design**).[76]

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[72] Explanatory Note, p. 8.

[73] See National DNA Database Ethics Group (United Kingdom), *Ethical Dimensions of the Application of Next Generation Sequencing Technologies to Criminal Investigations* (March 2017) at pp. 19–20. For background to the research see: Manfred Kayser, *Forensic DNA Phenotyping: Predicting human appearnce from crime scene material for investigative purpose*, 2015, 18 *FSI Genetics* 33.

[74] See, e.g., the example of Canada, where any information obtained via forensic testing agencies to predict physical traits from a DNA sample is used only to screen suspects or to confirm investigative leads, given that the analysis methods used are said not to demonstrate a sufficient level of accuracy to be relied on as credible evidence for presentation before a criminal court, cited in a comparative study prepared by the Swiss Institute of Comparative Law on the Regulation of the Use of DNA in Law Enforcement, 2020, p. 38, with further references.

[75] See a more in-depth discussion of the related problems of racial and ethnic profiling in David Skinner, *Forensic Genetics and the Prediction of Race: What Is the Problem?*" BioSocieties 15 (3), 329–349. See also Rafaela Granja and Helena Machado, *Forensic DNA phenotyping and its politics of legitimation and contestation: Views of forensic geneticists in Europe*, Social Studies of Science, July, pp. 1-19.

[76] As proposed in Gabrielle Samuel, Barbara Prainsack, *Report on recommendations to address the ethical and societal challenges of FDP (VISAGE)*, p. 4, with further, more specific recommendations found throughout the report, e.g. on p. 21, which refers to relevant EU legislation on data protection and policing, and outlines the following principles relating to the processing of personal data: (a) data minimisation and storage limitation, which ensures the processing of personal data is limited only to what is necessary with regard to the purpose for which they

60. In this regard, it is welcome that the need for mandatory and clear specifications in the DNA Profiles Act was recognized as a result of the consultation process, as emphasized in the Explanatory Note.[77] Such specifications need to be set out in the Act itself and be subjected to democratic debate and oversight as part of discussions on this piece of legislation in general. **Ethical considerations should be included in this process, focusing both on the rights of individuals and on the rights of groups; it is important to safeguard the rights of those groups that may be considered particularly at risk**.[78]

61. According to the Explanatory Note, a statutory ordinance will have to define, among others, technical requirements for the analysis procedure of the phenotyping traits, including quality requirements for the analyses; uniform assessment standards for the interpretation of the results; requirements for the content of the laboratory reports; and specifications for the regular review of the quality of the laboratory work (participation in scientific inter-laboratory tests, etc.).[79]

62. This does not, however, seem to cover regulations governing the operational/ investigative use of phenotyping (outside of the laboratory), based on criminal procedure legislation and relevant due process principles, and the critical review and evaluation of investigative results by oversight bodies that are independent from the police and from forensic companies. **It is recommended to review the Draft Amendments and planned ordinances, and to supplement both accordingly**.

63. Finally, it is noted that based on Article 2b par 4, the Federal Council may define further externally visible traits, provided that "reliability in practice is assured". This essentially shifts the approval for such traits from the National Council to the executive, which could raise concerns in terms of transparency, public civic participation and democratic legitimacy for such a move. Indeed, in other countries, the decision to expand phenotyping to additional characteristics requires parliamentary confirmation.[80] It is essential in this context that the addition of other externally visible characteristics undergoes an independent ethical review, as is the practice in other countries.[81] **It is thus recommended to consider involving the National Council in the decision to introduce additional characteristics to the Act, and in any event to introduce proper mechanisms of evaluation and oversight, to assess the necessity and utility of this step on a regular basis.**

64. Indeed, as also expressed by the ECtHR in pertinent case law, bearing in mind the rapid pace of developments in the fields of genetics and information technology, it is impossible to discount the possibility that in future, the private-life interests bound up

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are processed, and that the data are kept in a form which permits identification of data subjects for no longer than is necessary; (b) integrity and confidentiality, which ensures that data is processed in a manner that protects the security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate measures; (c) purpose limitation, which ensures data is only collected for a particular purpose and is only collected for as long as necessary; and (d) transparency.

[77] Explanatory Note, p. 24.

[78] National DNA Database Ethics Group (United Kingdom) (March 2017), *Ethical Dimensions of the Application of Next Generation Sequencing Technologies to Criminal Investigations*, par 3.2.1.

[79] Explanatory Note, p. 43.

[80] See, e.g., Article 151 par 5 of the Dutch Criminal Procedure Code. In this context, see also the Explanatory Note (p. 26), which refers to the fact that the proposal to add the traits of age and height to the list of characteristics that may undergo DNA testing has been under parliamentary review for some time. A proposal to include the trait of skin colour is also currently pending with the Parliament, see the comparative study prepared by the Swiss Institute of Comparative Law on the Regulation of the Use of DNA in Law Enforcement, 2020, p.78-79.

[81] In the United Kingdom, e.g., the England and Wales Biometrics and Forensics Ethics Group (BFEG) reviews the ethical implications of new and existing forensic genetics tools and advises authorities on the most appropriate governance framework, see also BFEG, 'Biometrics & Forensics Ethics Group Principles' (Biometrics & Forensic Ethics Group 2020) <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/702184/Biometrics_and_Forensics_Ethics_Group_principles_website_v2.pdf> accessed 6 July 2021.

with genetic information may be adversely affected in novel ways or in a manner which cannot be anticipated with precision today.[82] For this reason, it is important to conduct proper impact assessment and research before expanding phenotyping to further characteristics (see also Section 9 of this Opinion *infra*).

65. Furthermore, **the above provision should outline how reliability will be assured in practice, and consideration should be given to also introducing other criteria in Article 2b par 4, such as validity of data, but also the utility of technologies and processes, i.e. their operational value to criminal investigations. The legitimacy and necessity of such technologies and processes likewise constitutes an important factor**; one of the ways to measure this may be to assess the relationship of technology deployment to ethical, moral, social, legal and other costs and consequences.[83]

RECOMMENDATION D.

To revise the definition of phenotyping under Article 2b, so that it takes into consideration traces concerning non-visible traits of individuals and specify that phenotyping will only be used as an *ultima ratio* in criminal investigations.

To support the technique of phenotyping with a proper regulatory infrastructure, which would include strict procedures and multiple layers of decision-making in place prior to and during the use of phenotyping, with clear oversight and accountability mechanisms, involving independent, multi-stakeholder oversight bodies that are not linked to or answerable to the police or prosecution authorities or forensic companies.

To specify in the DNA Profiles Act and relevant criminal procedure legislation when phenotyping may invalidate a witness statement.

To involve the National Council in the decision to introduce additional characteristics to the Act under Article 2b par 4 and reflect in this provision key criteria such as validity of data, but also the utility of technologies and processes, i.e. their operational value to criminal investigations, and the legitimacy and necessity of such technologies.

5.3. Data Analysis

66. According to the Draft Amendments, the current title of Section 2 of the DNA Profiles Act, namely the taking of samples and DNA analysis, shall be repealed. Article 3, which currently describes the criteria and process of taking DNA samples, shall be replaced with a new Article 3 on surplus information. Articles 255 and 257 of the Criminal Procedure Code now specify in which cases and under which circumstances the police or a court may order the taking of DNA samples to create DNA profiles.

67. According to Articles 255 and 257 of the Criminal Procedure Code, it is possible to obtain DNA samples of individuals without consent in order to investigate a felony or misdemeanour, or, in the case of persons who have not been accused of a crime in cases specifically set out in Article 251 of the same Code (which permits examinations and

[82] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 71.

[83] For further discussion on the issue, see Matthias Wienroth, *Value beyond Scientific Validity: Let's RULE (Reliability, Utility, Legitimacy)*, Journal of Responsible Innovation 7 (sup1), 92–103.

interventions in the physical integrity of persons other than the accused without consent, but only if they are essential in order to properly investigate certain offences defined in par 4 of the same article). [84]**It is unclear, however, whether the relevant bodies are required to seek the consent of the respective individual before taking the above decisions. Consideration may be given to clarifying this issue. In any event, the protection of privacy rights needs to be automatically included in such processes and in the technological systems that are involved in such processes (privacy-by-design**).

68. According to the draft Article 3 of the DNA Profiles Act, when analysing DNA to generate a profile, or for the purposes of phenotyping, the generation of results that are not required by or that are not listed in the catalogue of admissible personal traits under Article 2b "are to be avoided as far as possible". In cases where such information is obtained nevertheless, it needs to remain at a laboratory, and may not be passed on to the ordering authority or other third party.

69. The Explanatory Notes specify that this provision is formulated in this way due to the difficulties of eliminating excess information completely and the International Organization for Standardization (ISO) 17025 requirements on disclosure, specifying the need to maintain the chain of custody and technical transparency. While these reasons may be justified from a quality assurance point of view, it is important to note that the ISO requirements do not, in themselves, prevent a human-rights based approach, as can be seen in other states that implement ISO standards. Even when ISO standards in the area of DNA analysis and processing are followed, the human rights of individuals (including related individuals) need to be respected.

70. Bearing in mind that any legal provision interfering with individuals' privacy rights needs to follow a legitimate aim, and be necessary and proportionate, a practice of keeping surplus information at all needs to follow certain public policy goals that are in line with international human rights standards.[85] **It would be advisable to explore ways to keep to the above-mentioned ISO standards, while at the same time protecting the privacy rights of the respective individuals**. In this context, it needs to be borne in mind that the ECtHR has stressed states' responsibility for striking the right balance between the use of modern scientific techniques in the criminal-justice system and the rights to private life of individuals.[86]

71. Generally, when undertaking advanced DNA profiling analyses, the generation of surplus information is unavoidable. For this reason, avoiding the generation of results that are not required by or that are not listed in the catalogue of admissible personal traits, as required in Article 2b, will be difficult to achieve in practice. From a human rights point of view, an ideal scenario would be to destroy all surplus information within a reasonably short period of time. If, however, as stated in the Explanatory Note, it is absolutely necessary to retain such information to reconstruct the course of the analysis or to check the quality of the analysis result at a later time, **such retention should be subject to clear regulatory structures, including information on the purpose of the retention, and monitoring systems**.

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[84] Article 251 par 4 of the Swiss Criminal Code of Procedure.

[85] See ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, pars 103-104 and 125. See also Els J. Kindt, Privacy and Data Protection Issues of Biometric Applications: A Comparative Legal Analysis, 2013.

[86] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 112.

72. More specifically, **safeguards such as transparent processes and oversight mechanisms[87] need to be in place to ensure that such information does indeed remain at laboratories, to avoid situations where such information is somehow passed on to others outside the laboratories. Clear specifications need to indicate who may have access to such information and which kinds of uses shall be permissible. Moreover, it needs to be clear who shall be responsible for ensuring and reporting on the manner of retention, how long such information shall be stored, and when and under which circumstances it shall be destroyed. The DNA Profiles Act should likewise specify possible consequences in case the above rules are breached. Article 3 should be supplemented accordingly, and it would be advisable to undertake some research into how this is done in other countries**.

73. The Draft Amendments introduce a new Section 2 on the identification of DNA profiles outside of criminal proceedings. According to Article 6, this shall be possible in cases of deceased persons and where persons are unable to provide their identity due to age, accident, permanent illness, disability, physical disorder or disturbance of consciousness, and where there are no other means to identify the above persons. A new par 2*bis* states that phenotyping of deceased persons may also be ordered if the person cannot otherwise be identified.

74. In this context, it is important to recall that, as specified in Article 5b of the UNESCO Universal Declaration on the Human Genome and Human Rights, any research, treatment or diagnosis of a person's genome, including the collection of biological samples from living individuals in order to generate a profile or other analysis, requires these persons' prior, free and informed written consent.[88] Exceptions to this rule are permissible if these individuals are not able to provide such consent, and if other substitute forms of consent or authorization are in the individuals' best interests. At the same time, it is important to bear in mind that according to Article 12 of the Convention on the Rights of Persons with Disabilities, such persons enjoy equality to others before the law and may not be discriminated against only because of their disability.

75. While the instances of non-consensual consent listed in Article 6 are in line with the requirements of the UNESCO Declaration, **it is advisable to also indicate with more clarity the rule of free, informed and prior consent, with special reference to the equal treatment of persons with disabilities in this respect**. The current examples in Article 6 should then be listed explicitly as exceptions to this rule.

76. Article 8 of the DNA Profiles Law regulates data analysis of DNA, by specifying how, among others, data samples are processed, and what kind of data is sent to laboratories for analyses. In this context, it is welcome that information on the race of the person concerned is no longer forwarded to the laboratories, so that the only information that they will receive are details regarding the location of the crime and where the trace evidence was found (par 4).

77. Nevertheless, the information to be provided based on Article 8 par 4 in its current form may not be sufficient for forensic scientists in their interpretation and evaluation of evidence. Thus, it needs to be borne in mind that case context is highly relevant for the robust interpretation and evaluation of DNA evidence.

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87 See, e.g., the National Commission for the Forensic Application of DNA in Spain, which provides advisory, regulatory and oversight functions for the national DNA database, including supervision of accreditation and quality control measures in laboratories concerned with genetic profiles; development and evaluation of procedures and protocols for confidentiality, storage of samples and analysis of profiles; ethical and legal advice; as well as ensuring compliance with international criteria and standards, as described in Gabrielle Samuel and Barbara Prainsack, *The Regulatory Landscape of Forensic DNA Phenotyping in Europe*, prepared as part of the EU VISAGE project, 2018, p. 49.

88 See International Committee of the Red Cross, *Guidelines for the Use of Forensic Genetics in Investigations into Human Rights and International Humanitarian Law Investigations*, 2020, Section II D. on Personal Autonomy and the Use of Forensic Genetics.

78. In any event, it is assumed that prior to the advanced DNA testing described in the DNA Profiles Act, the competent scientists will already have been provided with more detailed contextual information and will have undertaken significant testing based on such information. It is therefore unclear what kind of effect this provision will have in practice. Nevertheless, **it would be advisable to supplement this provision by adding that sufficient contextual information must be provided to the scientist, including the propositions of the prosecution and the defence**.[89] At the same time, **a caveat could be introduced stating that the evaluation of the probative value of DNA evidence must be within the context of the case.**

RECOMMENDATION E.

To clarify in Articles 251, 255 and 257 of the Criminal Procedure Code whether consent must be sought prior to police or court decisions ordering the taking of DNA samples from individuals, and ensure individuals' privacy rights in the relevant processes and technologies involved in a manner that is compatible with relevant ISO standards on disclosure, specifying the need to maintain the chain of custody and technical transparency.

To ensure that Article 3 of the DNA Profiles Act specifies that the retention of surplus information shall be subject to clear regulatory structures, including information on the purpose of the retention, and monitoring systems. Safeguards should also be in place in the form of transparent processes and oversight mechanisms, and the DNA Profiles Act should likewise specify possible consequences in case the above rules are breached.

To clarify in Article 6 of the Act the rule of free, informed and prior consent, with special reference to the equal treatment of persons with disabilities in this respect.

5.4. The Destruction of DNA Samples

79. The destruction of DNA samples taken from individuals is set out in Article 9. According to par 1 of this provision, samples shall be destroyed if a DNA profile has been generated, if sampling has not led to an analysis, if the respective person can be ruled out as a perpetrator, or after the identification of persons based on Article 6. The Draft Amendments mainly extend the deadlines for the destruction of DNA samples; thus, the destruction of samples that have not led to an analysis shall now take place after six months, and not after three months, as indicated in the current DNA Profiles Act. Based on the amended Article 9 par 2, a laboratory shall destroy DNA samples taken from a person after 15 years. The current version of this provision stipulates that a DNA sample shall be destroyed as soon as the DNA profile generated from it meets the qualitative requirements for inclusion in the DNA profile information system, but at the latest three months after the laboratory has received the sample.

80. Generally, given their sensitive nature in relation to individuals' rights to private life, it is considered a good practice to destroy biological samples after generating a profile, or

[89] European Network of Forensic Science Institutes (ENFSI), Guideline for Evaluative Reporting in Forensic Science - Strengthening the Evaluation of Forensic Results across Europe, approved version 3.0, 2016, par 1.1 and Guidance Note 2: Propositions. See also International Committee of the Red Cross, *Guidelines for the Use of Forensic Genetics in Investigations into Human Rights and International Humanitarian Law Investigations*, 2020, par 103, noting that although contextual evidence is not, on its own, sufficient to make an identification, it can support other means of identification and contribute to the process.

creating the analysis required. At the same time, it is not clear which cases, and which categories of individuals Article 9 par 2 refers to, if under par 1 such samples need to be destroyed in all of the cases mentioned therein, in particular if a situation arises where the samples are stored for longer than the DNA profiles. Moreover, the justification for retaining DNA samples after profiles have been generated, or indeed if an analysis of a DNA sample has not taken place, is not apparent.

81. To uphold the right to private life, states must avoid arbitrary interference with the personal life of individuals, which includes the protection of personal data.[90] Such interference is not arbitrary if it is necessary and proportionate in the pursuit of a legitimate aim. Proportionality requires the striking of a necessary balance between the legitimate rights and private interests of individuals and the public interest.[91] The considerations need to be borne in mind when determining states' margin of appreciation in the area of DNA profiling and databases.

82. The retention of biological samples interferes with the right to privacy, regardless of their subsequent use.[92] Notably, the ECtHR has emphasized that the retention of cellular material is particularly sensitive,[93] given the sensitive information that they contain about an individual, including information about his/her health. Such samples likewise contain a unique genetic code of great relevance to the respective individuals and their relatives.[94]

83. Given the wealth of genetic and health information contained therein, the ECtHR has therefore considered the retention of cellular samples to be particularly intrusive.[95] Such retention will therefore only be permissible if it is necessary and proportionate. In the case of *Peruzzo and Martens v Germany*, the ECtHR came to the conclusion that Germany was not in breach of the applicants' Article 8 rights, due to, among others, the fact that such cellular material could only be taken from individuals in certain specific and limited circumstances. Also, the applicants' cellular samples had been destroyed immediately after the generation of DNA profiles, and the Federal Criminal Office conducted regular reviews of the necessity to retain such data. Moreover, the applicants had the possibility to apply for the deletion of data stored, with options for further review.[96]

84. In comparison to the above principles, it is doubtful whether Article 9 is formulated with sufficient precision to meet the requirements of necessity and proportionality. For example, it appears that the extension of storage data applies equally to all biological materials collected at a crime scene, regardless of whether they belong to a convicted person, a witness or a person having no connection to a crime at all. The Explanatory Note states that the extension of the storage period of biological material from a personal

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[90] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 103.

[91] See, e.g., ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 118, and *Gaughran v the United Kingdom*, application no. 45245/15, judgment of 13 February 2020, pars 95-96. In this context, see also Daniel Solove, *Nothing to Hide: The False Tradeoff Between Privacy and Security*, 2011.

[92] *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 73.

[93] ECtHR, *Van der Velden v the Netherlands*, application no 21203/10, decision of 7 December 2006, where the Court ruled that taking bodily samples for DNA testing amounts to an intrusion of the applicant's privacy and the retention of the cellular material intrudes upon individuals' privacy rights, given the use that cellular material could conceivably be put to in future. See also *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 71, where the Court found that, bearing in mind the rapid pace of developments in the field of genetics and information technology, it is impossible to discount the possibility that in future, the private-life interests bound up with genetic information may be adversely affected in novel ways or in a manner which cannot be anticipated with precision today.

[94] *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 72.

[95] *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 120.

[96] ECtHR, *Peruzzo and Martens v Germany*, application nos. 7841/08 and 57900/12, judgment of 4 June 2013, pars 44-49.

sample in laboratories is necessary so that such material "can be available for closely defined further purposes" and refers (again) to the need for efficiency in criminal proceedings.[97] These purposes are, however, not specified in the Draft Amendments or in the Explanatory Note, nor is the argument of efficiency sufficient in itself to justify the necessity to retain DNA samples for a lengthy period, or to prove that this is proportionate (see, in this context, par 37 *supra*).

85. On the contrary, a general retention period of 15 years is most likely not in line with the above standards and would appear to overstep the margin of appreciation significantly. Should it be necessary to conduct further DNA testing of samples at a later stage, following a match of a trace from a crime scene, then this would constitute a prima facie argument for considering the respective individual as a suspect, which would permit their DNA to be retaken, with their consent or with the appropriate official authorization. Given the importance of individuals' private rights, and how essential it is for individuals who have been excluded from suspicion in criminal proceedings to be deleted from the relevant databases, such a long retention period of samples, while seemingly more convenient for state authorities, is not necessary or proportionate. It is likewise not necessarily more convenient in fact, given that lengthy retention periods require extended monitoring and oversight and would lead to a significant increase in costs for storage. It **is thus recommended to revisit this provision, and to retain the shortest possible retention period for DNA samples**.[98]

86. **Moreover, it should be possible for individuals concerned to apply for the deletion of their DNA samples.[99] While there is a complaints mechanism under Article 25 of the Date Protection Law, it is advised to clarify whether this applies to DNA samples retention cases, and in any event to add a relevant provision or reference to the DNA Profiles Act, or the Criminal Procedure Code.**

87. The Draft Amendments introduce a new Article 9a to the DNA Profiles Act, which specifies that as long as DNA samples are kept, they may be used for additional profiling in two distinct cases. The first instance allows such additional profiling, or retyping, provided that it is necessary to improve the meaningfulness of an existing DNA profile in a particular case or to meet new analysis requirements. The second instance allows retyping to further narrow the group of persons investigated in mass testing or in kinship matching.

88. While it is positive that such additional profiling is only permitted in specific cases, the above provision is quite general, and grants the relevant authorities wide discretionary powers. More specifically, Article 9a does not indicate which categories of individuals would be covered by this, and additional profiling needs specific definitions and parameters in place.

89. At the same time, it is not apparent why additional profiling should be necessary merely to meet new analysis requirements. Should a DNA profile obtained following previously valid analysis requirements match other DNA stored in the respective database, then this would give rise to "reasonable suspicion" concerning a particular individual; in such cases, a new sample could be taken from the donor of the profile, provided the donor gives his/her consent, in relation to the offence under investigation, following updated

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[97] Explanatory Note, pp. 24 and 39.

[98] See, in this context, the United Kingdom's Police and Criminal Evidence Act, as amended by the Protection of Freedoms Act 2021, stating that DNA samples must be destroyed as soon as DNA profiles have been generated, or six months after the sample was taken. In cases of samples taken in connection with the investigation of a qualifying offence, or if the sample is likely to be required for disclosure or use by a defendant, or when responding to a defendant's challenge, the responsible chief police officer may apply to a District Judge for an order permitting the retention of the sample beyond the date on which it would normally have been destroyed.

[99] See also *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 119.

analysis requirements. Should the donor refuse such consent, then mandatory sampling may be authorized by an appropriate authority.

90. Further, it would not be necessary to use DNA samples taken from known individuals for additional profiling to narrow a mass testing pool. Rather, this would require an analysis of the crime scene samples, which are already retained, in order to undertake, among others, kinship referencing or phenotyping. Once this has been done, then the scene trace profile will be compared with donor profiles, and matches could lead to the taking of new DNA samples from potential suspects, following their consent or the necessary authorization. This would only happen in certain individual cases and would not appear to be so arduous as to justify retaining all samples for a period of 15 years. For this reason, **it is recommended to also revise Article 9a to ensure that it corresponds to the requirements of necessity and proportionality.**

RECOMMENDATION F.

To review the retention periods for DNA samples set out in Article 9 of the DNA Profiles Act and retain the shortest possible retention periods, while adding to relevant legislation a provision outlining the right of individuals to apply for the deletion of DNA samples, either directly or by reference to the Data Protection Law.

To review the rationale for allowing additional profiling under draft Article 9a of the DNA Profiles Act and ensure that this provision is compatible with international principles of necessity and proportionality.

5.5. DNA Profile Information Systems and International Cooperation

91. Section 4 of the DNA Profiles Act regulates DNA profile information systems. Article 10 outlining basic principles of such systems has only been slightly amended and merely notes that these information systems shall facilitate the matching of DNA profiles for the purposes of law enforcement and identification of unidentified or missing persons. While this provides some information on the purpose of such systems, the formulation is not very specific. Normally, DNA profile information systems aim to identify unknown individuals in criminal investigations, identify linked crimes and serial offenders, and may additionally identify unidentified or missing persons outside of criminal procedures, also in cooperation with other countries or international bodies such as Interpol or Europol. **Article 10 should be re-evaluated, and expanded, to include basic principles referring to the aims and crime-solving capacities of such systems, as well as their deterrence effect, proportionality and legitimacy, the protection of privacy rights of individuals, and implementation efficiency and costs**.[100] This would make it easier to define appropriate metrics to evaluate the effectiveness or efficiency of DNA profile information systems.[101]

[100] See Aaron Amankwaa and Carole McCartney, *The Effectiveness of the UK National DNA Database*, Forensic Science International: Synergy 1 (2019), 45-55.

[101] See, in this context, International Committee of the Red Cross, *Guidelines for the Use of Forensic Genetics in Investigations into Human Rights and International Humanitarian Law Investigations*, 2020, pars 90-92. While this part of the Guidelines specifically deals with DNA databases aiming to conduct a DNA-based identification of human remains and missing persons, recommendations contained therein pertaining to administration, purpose, custody, confidentiality, access, duration, separation from other data banks, storage, security, interaction with official bodies, relations with sample donors, transparent management and auditing and civil, criminal and administrative liability arising from misuse of the samples and information stored in the data bank would appear to be relevant for databases used in criminal investigations as well.

92. **Moreover, principles guiding the establishment of such systems should also make reference to not only efficiency and effectiveness requirements, but also to key human rights, notably the right to private life, that such systems should take care not to breach. It is advisable to supplement Article 10 accordingly.**

93. The wording of Article 11 on the registration of DNA profiles of categories of persons listed therein in information systems seems to differ from the legislation across many European countries and to be inconsistent with international good practices. At the same time, the revised Article 12 par 1 establishes the Federal Office of Police as the authority responsible for information systems. While this is preferable to the current provision, which allows the Federal Council to designate such a body without specifying the nature of this body, the approach taken in the Draft Amendments carries with it the risk of institutional bias. **Rather than having a police body conduct oversight over DNA profile information systems, it is preferable to create an independent inter-agency oversight board for this purpose, which will be more in line with international good practices. Such a body could then set governance rules and standards for the operation of DNA database**s.[102]

94. Article 13 on international cooperation, which currently allows the Federal Office of Police to forward foreign requests for the verification of DNA profiles to federal and cantonal prosecution services andto submit Swiss requests as part of the cooperation with Interpol, has now been expanded to encompass such cooperation with Europol. Generally, international cooperation is positive and necessary in this field, and the provision is generally consistent with international practice on the transnational exchange of data. **A specific governing framework regulating the data-sharing process itself, with the necessary approval requirements, would help enhance transparency and clarity as to such processes. Presumably such a framework is already planned by Swiss decision-makers in the form of ordinances. However, the key elements of such a framework, including guidance, safeguards and possible restrictions, should also be set out in primary legislation**.

95. **The details of this framework on data-sharing should be subjected to a transparent political or public debate**. In particular, such a debate should focus on whether there are criteria or thresholds for the sharing of DNA profiles from Swiss databases, and whether this will also involve the export of samples, given the long retention period. Another matter that needs to be discussed is whether DNA profiles will be retained in foreign databases after Interpol/Europol exchanges, and if so, how this will be managed and overseen. Consideration should be given to conducting proper and in-depth debates on these topics prior to the drafting of the requisite ordinances.

RECOMMENDATION G.

To re-evaluate and expand Article 10 of the DNA Profiles Act to include basic principles referring to the aims and crime-solving capacities of DNA profile information systems, as well as their deterrence effect, proportionality and

[102] In England and Wales, e.g., the Forensic Information Database Service (FIND) Strategy Board oversees the operation of the database. Additionally, an independent Ethics Board and Office of Biometrics Commissioner provide an ethical and operational review of the UK National DNA Database (NDNAD). Moreover, in Portugal, the control of the DNA profile database is exercised by an independent Supervisory Board appointed by and accountably to the National Assembly and composed of three citizens "ofrecognized suitability" (Article 29 of the Law Approving the Creation of a DNA Profile Database for Civil and Criminal Identification Purposes). See also Law Commission of New Zealand, The Use of DNA in Criminal Investigations, 2020, pars 39-41, recommending the establishment of a new DNA Oversight Committee in New Zealand.

legitimacy, the protection of privacy rights of individuals, and implementation efficiency and costs, while bearing in mind key human rights issues.

To create an independent oversight board to oversee DNA profile information systems.

To ensure that the transnational sharing of data under Article 13 of the DNA Profiles Act takes place within a specific governing framework, the key elements of which, including guidance, safeguards and possible restrictions, should be set out in primary legislation and subjected to political or public debate.

6. RETENTION AND DELETION OF DNA PROFILES

96. Section 6 of the DNA Profiles Law concerns data protection and includes a special provision (Article 15) that specifies that before DNA samples are taken, the ordering authority shall inform the person concerned about the registration of their DNA profile in the information system, their right to information and the requirements for deletion. Any person has the right to ask the Federal Office whether a DNA profile is registered in the information system under their name. In this context, it would be advisable to include a reference to relevant provisions of the Data Protection Law, notably Article 15.

97. Article 16 provides details on the deletion of DNA profiles. The Draft Amendments have extended or reduced the retention periods of such profiles significantly and have introduced specific retention periods for different types of offences. Thus, Article 16 pars 1 and 2 now foresees the deletion of DNA profiles after a minimum of ten years (e.g. after a person's death or after a custodial sentence, suspended fine or community work), and a maximum of forty years in the event of a custodial sentence exceeding ten years. In the case of lifelong expulsion of foreign nationals from Switzerland, the DNA profile shall only be deleted after the respective individual's death. The time periods start to run from the date when the judgment becomes final (par 3); currently, different time periods are provided depending on the situation. There are special regulations for convicted minors, whose data shall be deleted five years after the ordering of protective measures, or other sanctions, and ten years after a custody order or placement.

98. Based on the revised Article 16 par 4 of the DNA Profiles Act, DNA profiles may be retained for up to ten years after a person has been acquitted and after the decision was taken to not pursue prosecution or not open criminal proceedings, if the previously alleged criminal offence involved custodial sentences of three to more than ten years in total. This is possible if it is to be expected, on the basis of specific facts, that the DNA profile of the (previously) accused could be useful in investigating future criminal acts, following the consent of the "director of proceedings". It is assumed that this term refers to the competent prosecution authorities, but this should be clarified.

99. In cases involving convictions with high custodial sentences, DNA profiles shall not be deleted at all if the custodial sentences were based on the offenders' mental incapacity (par 5). And in cases of indefinite incarceration or therapeutic measures, DNA profiles shall be deleted twenty years after final release from prison or final conclusion of therapeutic measures (par 6).

100. It is not clear whether the above lengthy retention periods were based on any prior research or systematic evidence. **Overall, the above provisions and retention periods need to be reviewed by an independent oversight body that is not linked to the police**

or forensic companies.[103] The case law of the ECtHR likewise needs to be borne in mind, as it has established that retention of personal data is considered to have an impact on individuals' rights even if the data is not actively used,[104] and that the mere storage of personal data, including cellular samples and DNA profiles, amounts to an interference with the right to private life under Article 8.[105] Thus, the retention of biometrics needs to be necessary, and the length of retention depends on the severity of the offence in question or nature of the offence, the length of any sentence, and the characteristics of the individuals concerned.[106]

101. It is true that some old cases are only resolved decades after the initial incident, so that an early deletion of records may hinder the resolution of such cases. At the same time, whilst a blanket retention period for different categories of individuals may reduce the administrative burden on state authorities responsible for data retention, this kind of blanket retention regime does not strike a fair balance between an individual's right to privacy and the public interest.[107] Proportionality also means distinguishing between different individuals, while bearing in mind that also convicted individuals require their privacy rights to be protected. [108] At the same time, persons who have not been convicted of an offence and are thus entitled to the presumption of innocence risk being stigmatized if they are treated in the same way as convicted persons.[109]

102. In general, the process should be subject to regular review by an independent, multi-stakeholder oversight body[110] to ensure that on the one hand, crime detection opportunities are not missed, and on the other hand, the rights of individuals are not infringed upon (e.g., where the offence is removed from criminal record, or rehabilitation of the offender has been established).

103. The DNA Profiles Act, as amended by the Draft Amendments, while differentiating between different cases on the basis of the seriousness of the offence, or, e.g., based on the age of the person convicted, does not allow for an individualized assessment of the need to retain DNA profiles for a lengthy period of time. Moreover, there is no apparent

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[103] See in this context ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 119, where the Court criticized that there was no provision in relevant legislation allowing for an independent review of the retention of data according to defined criteria.

[104] See, in particular, ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 124, where the Court noted that the retention of unconvicted persons' data may be especially harmful in the case of minors, given their special situation and the importance of their development and integration in society.

[105] ECtHR, *Aycaguer v. France*, application no. 8806/12, judgment of 22 June 2017, par 34. See also *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 121.

[106] See ECtHR, *Trajkovski and Chipovski v. North Macedonia*, application nos. 53205/13 and 63320/13, judgment of 13 February 2020, pars 52- 53, where the Court found that it was not simply the retention period that will be weighed in its assessment, but whether the law has taken into account the seriousness of the offence, provision for review on the continuing need to retain the data in view of the nature of the offence, the age of the applicant, the length of time that has elapsed and the current personality of the convict, with an option to have one's data deleted after such review. See further ECtHR, *Gaughran v the United Kingdom*, application no. 45245/15, judgment of 13 February 2020, par 88, where the Court also noted the absence of key safeguards and considerations in the retention of biometrics from convicted individuals, namely the gravity of the offence, necessity of indefinite retention and opportunities for review of retention. In this context, see also Section 75 par 4 of the Austrian Criminal Procedure Code, which states that personal data obtained through a person's identification, physical examination or the analysis of cellular material may be processed only as long as, due to the manner of executing the criminal act, the personality of the respective individual, or other circumstances, there is a danger that this person will commit a criminal act with consequences that are more than just minor.

[107] See, in this context, the ECtHR judgment in the case of *Trajkovski and Chipovski v. North Macedonia*, application nos. 53205/13 and 63320/13, judgment of 13 February 2020, pars 53-54. In this case, the ECtHR found a perceived lack of proportionality between the retention period and the nature of the offence including the lack of access to a 'deletion procedure' by convicted individuals.

[108] ECtHR, *Aycaguer v. France*, application no. 8806/12, judgment of 22 June 2017, par 45, where the Court found a violation of Article 8 because a data deletion procedure was only available for persons suspected of having committed an offence and not for convicted persons.

[109] ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 122.

[110] See country examples above in footnote 105.

regime for review of the ongoing necessity of retention of such data in the Act. It is possible that the review system set out in the Data Protection Law applies here, but this should be specified, at least with reference to the law. **In other countries, establishing special biometric review units within the police force has led to positive results,[111] and it is recommended to explore these and other possibilities for review. In principle, it would be preferable to establish an individualized review system that is specifically tailored to the retention of DNA for policing purposes.**

104. **Moreover, it should be possible for individuals concerned to apply for the deletion of their DNA profiles**.[112] While there is a similar complaints mechanism under Article 25 of the Date Protection Law, it is not clear to which extent this applies to data stored and retained under the DNA Profiles Act. **It is recommended to introduce such possibility to the Act, or to the Criminal Procedure Code, or to add a pertinent reference to the Data Protection Law**.

105. In the Explanatory Note, the necessity for this new system of retention periods has been based again on the need for efficiency,[113] which, based on what was stated above (see par 37 *supra*), should not be the sole purpose of such measures. As regards necessity in general, the ECtHR does allow for general measures where these constitute a more feasible means of achieving a legitimate aim (rather than a provision allowing a case-by-case examination), where a case-by-case approach would give rise to significant uncertainty, litigation, expense and delay, as well as potential discrimination and arbitrariness.[114] In such cases, however, the quality of the parliamentary and judicial review of the necessity of the measure and of the operation of the margin of appreciation become highly relevant, and review mechanisms need to be carefully designed.

106. As regards the possibility of retaining DNA profiles for up to ten years after a person has been acquitted and after the decision was taken to abandon or not open criminal proceedings set out in Article 16 par 4, it is important to recall the jurisprudence of the ECtHR, which has stated that the retention of samples/profiles from un-convicted individuals requires greater justification.[115] In particular, the ECtHR noted the dangers of treating individuals who have not committed an offence and are thus entitled to the presumption of innocence the same way as convicted persons.[116] **The right of every person to be presumed innocent under Article 6 par 2 of the ECHR includes the general rule that no suspicion regarding an accused's innocence may be voiced after their acquittal.[117] While the retention of individuals' private data is not the same as voicing suspicions, their perception that they are not being treated as innocent is heightened by the fact that their data are retained in the same way as the data of convicted persons, while the data of those who have never been suspected of an**

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111 In the United Kingdom, Biometrics Retention Units (BRU) are established within police forces. A BRU can assess cases and identify those that may benefit from extended biometric data retention. This has led to the identification of shortcomings in some cases. For example, the BRU of the Metropolitan Police Service (MPS) identified a sexual assault case with a suspect for whom a No Further Action (NFA) entry had been made, where they should have been charged (they were subsequently convicted). Other cases where no biometric data were taken have also been identified and the data of the individuals involved have now been obtained and added to the UK National DNA Database.

112 See also *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 119.

113 Explanatory Note, p. 20.

114 See, mutatis mutandis, ECtHR, *Animal Defenders International v. the United Kingdom*, application no. 48876/08), Grand Chamber judgment of 22 April 2013, pars 108-110.

115 ECtHR, *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 123.

116 Ibid., par 122.

117 ECtHR, *Rushiti v. Austria*, no. 28389/95, judgment of 21 March 2000, par 31, with further references.

offence are required to be destroyed.[118] For the above reasons, this new provision should be revised extensively or deleted.[119]

107. **The apparently unlimited retention of profiles of those who were acquitted/ not proceeded against on the basis of mental incapacity under Article 16 par 5 could be considered discriminatory, given that there is a significant difference in treatment of these categories of persons when compared to others convicted of criminal acts. It is also questionable from an ethical viewpoint and should be extensively revised or deleted.**

108. The final par 7 of Article 6 is a 'catch-all' provision allowing for "all other cases not covered" to have their DNA profiles retained for 10 years. This would appear to imply that the default position is retention of data, rather than the authorities justifying retention on a reasoned basis in individual cases. **This provision in particular would not appear to be in line with the human rights standards set out above and should be reviewed, along with the entire new system of retention of DNA profiles.**

109. In general, it is important to bear in mind that it is not the size of the database that determines its effectiveness,[120] but rather other factors are critical, such as whose data is retained, and whether an information system is used to best effect in respect of uploading DNA profiles from relevant crime scenes and the police follow-up of DNA matches.[121]

110. Article 17, as revised by the Draft Amendments, states that DNA profiles may be kept by agreement with the competent judicial authority for a maximum of ten years beyond the deletion date if the definite suspicion of a felony or misdemeanour that is not time-barred remains or if there is concern about a repeat offence. **It is somewhat unclear how this matches the general retention regimes set out in Article 16, and which process will determine this. More specifically, the above provision does not specify how a "definite suspicion" or "concern about a repeat offence" will be evidenced. These matters should be clarified.**

RECOMMENDATION H.

To ensure that the processes and retention periods set out in the revised Article 16 of the DNA Profiles Act are reviewed by an independent oversight body that is not linked to the police, while specifying how a "definite suspicion" or "concern about a repeat offence" will be evidenced.

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[118] *S. and Marper v the United Kingdom*, application nos. 30562/04 and 30566/04, judgment of 4 December 2008, par 122.

[119] See, e.g., Article 75 par 4 of the Austrian Criminal Procedure Code, which requires personal data of individuals to be destroyed once they have been acquitted, or where criminal investigations were discontinued, and Section 73 par 1 (4) of the Austrian Federal Security Police Act, stating the same for persons who are no longer suspected of having committed a crime, unless further data processing is necessary due to concrete circumstances indicating that the respective individual will commit dangerous criminal attacks. Chapter 5, Section 7 of the Swedish Act on the Processing of Personal Data by the Police also stipulates that DNA profiles must be deleted if a higher court in a final judgment has acquitted the registered person for the act in question or if a court has set aside/annulled a convicting judgment, as cited in the comparative study prepared by the Swiss Institute of Comparative Law on the Regulation of the Use of DNA in Law Enforcement, 2020, p. 105.

[120] In the United Kingdom, e.g., after the deletion of over 1.7m profiles following the ruling of the ECtHR in the case of *S and Marper v the United Kingdom*, the NDNAD match rate increased, see Home Office of the United Kingdom and James Brokenshire (MP), Protection of Freedoms Act implementation and National DNA Database Annual Report 2012 to 2013, GOV.UK, 2013. Available from: https://www.gov.uk/government/speeches/protection-of-freedoms-act-implementation-and-national-dna-database-annual-report-2012-to-2013 .

[121] For further detail on this question, see Aaron Amankwaa and Carole McCartney, *The Effectiveness of the UK National DNA Database*, Forensic Science International: Synergy 1 (2019), 45-55.

7. OVERSIGHT AND EVALUATION OF THE LAW

111. The Draft Amendments introduce a new Article 20a, stating that the Federal Police Office shall evaluate the utility of the DNA Profiles Act five years after the amendments entered into force. This is welcome in principle, as evaluating the operation of the DNA profiling techniques and retention regimes set out in the Draft Amendments will be key to providing an evidence base which will help demonstrate the necessity of these new provisions.

112. At the same time, it is doubtful whether the responsibility for evaluation should rest with the Federal Police Office, which is directly involved in the implementation of the Act and therefore would presumably have an interest in a positive evaluative outcome. The fact that the Explanatory Note states that the evaluation could "make it possible to optimize the new tools where necessary"[122] raises concerns as to whether such an evaluation will truly constitute an in-depth review of how the new provisions work in practice, or whether it will merely seek to optimize the system in place. There is thus a real potential for institutional bias, and danger of a lack of impartiality.

113. For this reason, **it is imperative that a body independent from the police is tasked with evaluation, ideally by the National Council. This independent body will need to be also free of any scientific or commercial links, so as to ensure its impartiality, and counter potential pressure. The body must also be completely transparent, and itself incorporate multiple diverse perspectives, and needs to be given full access to all necessary data.**

114. Additionally, an evaluation requires sophisticated data collection from the outset to enable proper evaluation at a later stage. There will need to be early agreement on what data points will facilitate evaluation. These should include both sensitive and complex data, which means that there must be early engagement with experts to address the inevitable practical and ethical issues with the collection of this data. Comprehensive reliable data must then be collected throughout the duration of the five years set out in Article 20a before being made available to evaluators. As soon as the Act is passed, there must therefore be a clear plan on how the evaluation will be conducted so that the requisite data collection is commenced. These types of evaluation necessitate valid and reliable data, and it is essential that proper research is conducted into the effectiveness of policing and forensic interventions.

115. According to Article 20a, the evaluation will review the "appropriateness and effectiveness" of the Act. **These criteria of "appropriateness and effectiveness" will need careful explication and supplementing with other aims**. As stated earlier, efficiency is one value, but there are other important evaluative criteria that must be incorporated into any evaluation, notably the respect for personal liberty, the maintenance of individual autonomy, personal privacy, informed consent and equal treatment. [123]

116. To ensure the maintenance of a criminal justice process that is respectful of human rights and based upon socially accepted notions of justice, DNA profiling, its operationalization within policing, and its governance must respect ethical principles, and maintain social acceptability. The proper balance needs to be struck between crime prevention and

[122] Explanatory Note, p. 61.

[123] See Nuffield Council on Bioethics, *Annual Report 2007*. See also the Scottish Biometrics Commissioner Act 2020, Section 2(1) stating that the function of the new Commissioner is to support and promote the adoption of "lawful, effective and ethical practices in relation to the acquisition, retention, use and destruction of biometric data for criminal justice and police purposes".

resolution and other important values, including the protection of and respect for human rights of both individuals and groups. It is important to bear these considerations in mind when establishing the evaluation system under Article 20a.

RECOMMENDATION I.

To ensure that evaluation of the Act under the draft Article 20a of the DNA Profiles Act is conducted by a transparent body that is independent from the authority in charge of the investigation or prosecution, but also from the police and forensic companies, , with having access rights to all relevant data. The criteria of "appropriateness and effectiveness" mentioned in the provision will need careful explication and supplementing with other aims.

8. TRANSITIONAL PROVISIONS

117. It is welcome that the Draft Amendments introduce a new Article 23a to the DNA Profiles Act, which states that the provisions based on which samples and profiles may be deleted under Articles 16 and 17 shall also apply to DNA profiles generated before the entry into force of the amendments, and for which "the necessary judicial agreement to deletion has not been issued at that time".

118. Overall, transitional laws are relevant to ensure that legacy samples and profiles are not unlawfully retained or deleted, leading to potential human rights challenges. For this reason, **there must be specific provisions in the Act on the use of DNA matches that have turned unlawful once the Amended Act is in place, in particular regarding the question of whether these may be used as admissible evidence before court or not.**[124] **It is recommended to adapt Article 23a accordingly**.

9. RECOMMENDATIONS RELATED TO THE PROCESS OF PREPARING AND ADOPTING THE DRAFT LAW

119. OSCE participating States have committed to ensure that legislation will be "adopted at the end of a public procedure, and [that] regulations will be published, that being the condition for their applicability" (1990 Copenhagen Document, para. 5.8).[125] Moreover, key commitments specify that "[l]egislation will be formulated and adopted as the result of an open process reflecting the will of the people, either directly or through their elected representatives" (1991 Moscow Document, para. 18.1).[126] The Venice Commission's Rule of Law Checklist also emphasizes that the public should have a meaningful opportunity to provide input.[127] As also specifically recommended in the recent OSCE/ODIHR Preliminary Assessment of the Legislative Process in the Republic of Uzbekistan, "[p]ublic consultations should become a routine feature […] overall and a

[124] In England and Wales, there have been historical cases where unlawful matches used in investigations led to a conviction being quashed. This raised public security concerns and the courts can now exercise discretion on whether to allow unlawful matches or not. See *R v Weir* [2000] EWCA Crim 43.

[125] Available at <http://www.osce.org/fr/odihr/elections/14304http://www.osce.org/fr/odihr/elections/14304>.

[126] Available at <http://www.osce.org/fr/odihr/elections/14310http://www.osce.org/fr/odihr/elections/14310>.

[127] See Venice Commission, *Rule of Law Checklist*, CDL-AD(2016)007, Part II.A.5.

meaningful part of every stage of the legislative process, particularly in the Legislative Chamber".[128]

120. It is understood that the legal drafters have conducted extensive consultations concerning the Draft Amendments. For consultations on draft legislation to be effective, they need to be inclusive and involve consultations and comments by the public, including civil society. They should also provide sufficient time to stakeholders to prepare and submit recommendations on draft legislation, while the State should set up an adequate and timely feedback mechanism whereby public authorities should acknowledge and respond to contributions, providing for clear justifications for including or not including certain comments/proposals.[129] To guarantee effective participation, consultation mechanisms must allow for input at an early stage *and throughout the process*,[130] meaning not only when the draft is being prepared by relevant ministries but also when it is discussed before Parliament (e.g., through the organization of public hearings).

121. The legal drafters have prepared an Explanatory Note to the Draft Amendments, which lists a number of reasons justifying the contemplated reform but does not mention the research and impact assessment on which these findings are based. At the same time, it is noted that Section 6 on impact of the Draft Amendments mentions only financial impact but does not go into detail on potential other impacts, aside from stating that "no effects are to be expected in the other areas such as the national economy, society or the environment", and that the relevant issues were thus not examined.

122. Given the potential and expected impact of the Draft Act on the exercise of human rights and fundamental freedoms of individuals, an in-depth regulatory impact assessment, including in particular on human rights impacts and compliance, is essential, which should contain a proper problem analysis, using evidence-based techniques to identify the most efficient and effective regulatory option.[131] The legal drafters are encouraged to undertake such an in-depth review, to identify existing problems, and adapt proposed solutions accordingly, while bearing in mind the concerns raised and the recommendations made in this Opinion.

123. In light of the above, **the public authorities are encouraged to continue inclusive, extensive and effective consultations on the Draft Amendments and possible changes to their provisions, including with civil society, offering equal opportunities for women and men to participate. According to the principles stated above, such consultations should take place in a timely manner, at all stages of the law-making process, including before Parliament.**

RECOMMENDATION J.

To ensure an in-depth impact assessment that includes a proper human rights assessment of the Draft Amendments, and continue inclusive, extensive and effective consultations on the Draft Amendments and possible changes to their

[128] See OSCE/ODIHR, *Preliminary Assessment of the Legislative Process in the Republic of Uzbekistan* (11 December 2019), Recommendation N.

[129] See e.g., *Recommendations on Enhancing the Participation of Associations in Public Decision-Making Processes* (from the participants to the Civil Society Forum organized by the OSCE/ODIHR on the margins of the 2015 Supplementary Human Dimension Meeting on Freedoms of Peaceful Assembly and Association), Vienna 15-16 April 2015.

[130] See e.g., *op. cit.* footnote 90, Section II, Sub-Section G on the Right to participate in public affairs (2014 OSCE/ODIHR Guidelines on the Protection of Human Rights Defenders).

[131] See e.g., ODIHR, *Preliminary Assessment of the Legislative Process in the Republic of Uzbekistan* (11 December 2019), Recommendations L and M; and Venice Commission, *Rule of Law Checklist*, CDL-AD(2016)007, Part II.A.5.

provisions, including with civil society, offering equal opportunities for women and men to participate, at all stages of the law-making process.

[END OF TEXT]