Criminal Justice (Forensic Evidence and DNA Database System) Bill 2013

Regulatory Impact Analysis

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<tr><td colspan="4">What policy options have been considered? Please summarise the costs, benefits and impact relating to each of the options below and indicate whether a preferred option has been identified.
1. Retain the status quo
2. Comprehensive database
3. Limited database
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<tr><th colspan="4">Options</th></tr>
<tr><th></th><th>Costs</th><th>Benefits</th><th>Impacts</th></tr>
<tr><td>1</td><td>Not quantified but arise in terms of preventing the Garda Síochána from taking full advantage of the developments in forensic science to assist in the detection and prosecution of criminal offences and associated implications for public safety; non-compliance with an EU Council Decision</td><td>No direct costs to the Exchequer.</td><td>Continuation of unregulated common law regime in respect of the taking of samples from suspects in parallel with statutory regime; inability to take full advantage of the advances in forensic science and databasing technology; inability to meet obligations under an EU Council Decision requiring Member States to have a DNA Database System.</td></tr>
<tr><td>2</td><td>Not quantified as the option was considered to be incapable of justification both in financial terms and interference with the rights of individuals.</td><td>Possibly avoid arguments that the DNA Database System is discriminatory; ensure that the 'criminal population' is on the DNA Database System; Compliance with an EU Council Decision</td><td>Disproportionate interference with the privacy rights of individuals; unjustifiable costs having regard to the likely benefits.</td></tr>
<tr><td>3</td><td>Forensic Science Laboratory: The capital cost will be in the order of €750,000 to cover the cost of the finalisation of the Laboratory Information Management System. The anticipated ongoing costs will be dependent on the numbers generated but are unlikely to amount to more than €250,000 per annum in addition to existing budget. There are also likely to be some staffing</td><td>More efficient and effective Garda investigations, Positive impact on detection of crime; possible reduction in some offence types; estimated database match rate of 40% between an unidentified crime scene profile and a</td><td>Proportionate inference with privacy rights and right to bodily integrity,
Positive impact on crime detection,
Better use of Garda resources,
Speedy exoneration of innocent persons,
Increase in guilty pleas where DNA evidence is available.</td></tr>
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	implications. While it is possible to run the system with existing staff resources, this is predicated on the assumption that the existing staff remain. However, the age profile of the laboratory makes that unlikely. One possibility that needs to be explored is the employment of a small group of personnel on a contract basis to establish the system and a review of the resources when the system is bedded down. **Garda Síochána**: training costs and cost of consumables - other requirements come within over-arching Garda strategies in the area of IT and storage of exhibits. Additional staffing of 9 identified. **Irish Prison Service / Irish Youth Justice Service**: training costs and cost of consumables	person profile on the database within 5 years; compliance with an EU Council Decision	

1. Policy context

The Programme for Government includes a commitment to establish a DNA database to assist the Garda Síochána in the investigation of crime.

The Programme commitment is a continuation of a commitment by previous Governments to the establishment of such a database.[1] The Criminal Justice (Forensic Evidence and DNA Database System) Bill 2010 lapsed on the dissolution of the last Dáil. The 2010 Bill drew in large part on the report of the Law Reform Commission (LRC) entitled *"The establishment of a DNA Database"* (LRC 78-2005) which was published in November 2005. The LRC's report was the conclusion of work it began following the referral of the issue for its consideration by the Attorney General in February 2003. The Bill also sought to reflect developments in the jurisprudence of the European Court of Human Rights in relation to the application of Article 8 (right to a private life) to the retention of samples and the DNA profiles generated from such samples (notably *S & Marper V the United Kingdom* (8 December 2008).

The statutory framework for the taking of forensic samples for the purposes of criminal investigations is contained in the Criminal Justice (Forensic Evidence) Act 1990. It provides a legislative base for the taking of forensic samples (including those which may be used to develop DNA profiles) from persons for the purposes of criminal investigations. The taking of samples under that Act is confined to their taking for evidential purposes i.e. proving or disproving a person's involvement in the offence in respect of which he or she has been arrested and detained by the Garda Síochána. In practice, the 1990 Act is little used outside of major investigations due to the cumbersome nature of the procedural steps required by it. In most investigations samples are taken under the common law i.e. on a voluntary basis. This practice, which was upheld by the Supreme Court in the *Director of Public Prosecutions v Michael Boyce* (18 November 2008), is based on a recommendation issued by the Director of Public Prosecutions, having regard to the difficulties experienced in the operation of the 1990 Act.

As mentioned, the current statutory framework restricts the purposes for which forensic samples may be taken to evidential purposes. A restriction of this nature does not facilitate the establishment of a DNA database as an intelligence resource for the Garda Síochána. In this regard Ireland is out of step with other jurisdictions - over the last 15 years most other EU Member States have developed DNA databases. Such databases are used to store DNA profiles developed from samples taken from known individuals and also unknown DNA profiles developed from crime scene stains and they facilitate speculative comparisons between the different sets of profiles. By this means they produce 'matches' between crime scenes stains (indicative of a serial offender) or between crime scenes stains and individuals (indicative of a possible suspect) or both and thereby generate investigative leads for the

[1] In January 2006 the Government approved the preparation of a General Scheme of a Bill to provide for the establishment on a statutory basis of a DNA database. The General Scheme was approved by Government on 9 February 2007. The text of the Criminal Justice (Forensic Evidence and DNA Database System) Bill 2010 was approved by Government on 15 December 2009.

police. The database also helps to exonerate suspects whose DNA profiles are already on the database (but whose profiles do not 'match' a crime scene stain).

The experience in other jurisdictions demonstrates the important contribution DNA databases make to criminal investigations where crime scenes are examined and yield forensic material. For example, the UK's National DNA Database (NDNAD) had a match rate of 61% in 2011/2012[2], the Scottish database had a match rate of 52.3% in 2010/2011[3] while the Northern Ireland database had a match rate of 62% in 2009/2010[4]. Experience in other jurisdictions also demonstrates that, while we tend to think of the greatest value of DNA lying in its use in serious offences against the person such as murder, rape etc. DNA databases are particularly useful in the context of volume crime (e.g. burglary). The proposed database would greatly enhance the present Garda operations of using intelligence policing to target travelling criminals particularly in relation to burglaries.

Apart from the demonstrable benefits experienced by other countries it is also the case that Ireland is required by Council Decision 2008/615/JHA of 23 June 2008 on the stepping up of cross-border cooperation, particularly in combating terrorism and cross-border crime[5] to establish a DNA database to facilitate the automated exchange of DNA data (together with fingerprints and vehicle registration details) with other Member States ('Prüm Council Decision'). The implementation date for the DNA database aspects of the Council Decision is Autumn 2011 however the State is not at risk of financial penalties for non-implementation until end 2014. In addition the State has entered into a Prüm-like bilateral agreement with the United States of America which requires the establishment of a database for it to become operational.[6]

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[2] This refers to the match rate when a new crime scene profile is loaded to the NDNAD and immediately matches one or more subject sample profiles already on the database. Source: National DNA Database Strategy Board (2013) "National DNA Database 2011-2012 Annual Report".

[3] National DNA Database Strategy Board (2012) "National DNA Database 2009-2011 Biennial Report".

[4] National DNA Database Strategy Board (2012) "National DNA Database 2009-2011 Biennial Report".

[5] This Council Decision incorporates much of the substance of the Prüm Treaty (a treaty to which a large number of EU Member States are party) into the legal framework of the European Union. An implementing Council Decision has also been adopted - Council Decision 2008/616/JHA of 23 June 2008 on the implementation of Decision 2008/615/JHA on the stepping up of cross-border cooperation, particularly in combating terrorism and cross-border crime. The Council Decisions have also been applied between Iceland and Norway and the European Union by means of the Agreement between the European Union and Iceland and Norway on the application of certain provisions of Council Decision 2008/615/JHA on the stepping up of cross-border cooperation, particularly in combating terrorism and cross-border crime and Council Decision 2008/616/JHA on the implementation of Council Decision 2008/615/JHA on the stepping up of cross-border cooperation, particularly in combating terrorism and cross-border crime and the Annex thereto done at Stockholm on 26 November 2009 and Brussels on 30 November 2009.

[6] Agreement between the Government of Ireland and the Government of the United States of America on Enhancing Cooperation in Preventing and Combating Serious Crime - was approved by Dáil Éireann on 7 February 2012 as required by Article 29.5.2 of the Constitution.

As noted above, two parallel systems operate at present in relation to the taking of samples from persons detained in Garda custody for the investigation of an offence: the statutory regime under the 1990 Act and the common law regime. While the statutory regime includes provisions governing the retention of samples, the common law regime is unregulated.

Another feature that is arguably absent from the present system is regulation of the taking and treatment of samples in respect of persons who are not in Garda custody. For example, a victim's DNA profile may be required to assist in an investigation.

2. Objectives

Having regard to the limitations of the existing statutory provisions dealing with the taking of forensic samples, developments in other jurisdictions and EU/international requirements, the aim is to facilitate the use of DNA technology to the greatest extent possible in criminal investigations. This necessitates the establishment of a DNA database. The immediate objective of the database is to assist the Garda Síochána by

- identifying links between crimes, such as in the case of stains left at the scene of the crime by serial offenders;
- the speedy exoneration from the scope of the investigation of suspects who are already on a database and whose profiles do not match;
- the making of "cold hits" – that is where a stain is matched with a profile of a person on the database who is not already a suspect;
- the identification of missing persons, seriously ill persons or deceased persons.

Ultimately the objective is to increase detection rates, achieve efficiencies in the conduct of investigations, reduce court time due to early guilty pleas and possibly deter persons whose profiles are already on the database from re-offending.

3. Evaluation of options

Three options were examined

(a) maintain the status quo;
(b) establish a comprehensive system; and
(c) establish a limited database.

3.1 Maintain the status quo – costs/benefits/other impacts

As mentioned above, the present position is that DNA technology is used in this jurisdiction only to confirm or disprove the findings of an investigation and support the subsequent court case. In 2012, the Forensic Science Laboratory (FSL) received 1787 DNA submissions. The trend in the first quarter of 2013 suggests that this figure will be closer to 2,000 in 2013. This increase in DNA submissions occurred at the same time as a drop in drug submissions. Staff in the laboratory were trained to suit the changing needs.

The cases in which DNA analysis is used are carefully screened to prioritise the most serious cases. This amounts to a 'customised' service designed to make the best use of limited resources. The FSL has stated that it is difficult to see how long this situation is tenable as the courts increasingly expect to be presented with DNA profiles as best evidence in considering cases. The existing system, in the absence of a DNA Database, is making only partial use of the potential benefits to be gained from DNA analysis particularly in the area of volume crime and by operating in a 'customised' fashion, it is failing to achieve economies of scale in processing.

Maintaining the status quo has no direct cost implications as such but it does deny the State the opportunity to take full advantage of DNA technology in the detection and prosecution of crime and therefore has significant consequences for public safety. This option would also result in the State failing to comply with its obligations under the Prüm Council Decision, which could result in financial penalties if the decision is not complied with by the end of 2014.

Furthermore, the Government has already committed to the establishment of a DNA database.

Maintaining the status quo would also result in the continuance of an unregulated common law regime in parallel with a little-used statutory regime. The establishment of a database requires that related issues concerning privacy rights including the
retention arrangements for samples and profiles must be addressed. Since Ireland is a Party to the ECHR, the jurisprudence of the ECtHR on these questions, including the Marper judgement, can be relied upon in Irish Courts and must therefore be taken into account in designing the system. Given the importance and sensitivity of such issues it is considered that these matters are best dealt with by means of primary legislation.

3.2 Comprehensive System – costs / benefits /other impacts

A comprehensive database which would potentially contain the DNA profiles of the entire population was briefly considered. The LRC rejected it in favour of a limited one. Its analysis was based on the experience elsewhere and the realisation that the cost of a comprehensive one would not be justified relative to the expected outcomes.

It also seems from international experience, as well as from first principles, that the returns on such an exercise would very quickly diminish once the population of persons habitually involved in crime had been sampled. The percentage of the population involved in crime in any society might only amount to a few percent - meaning that most of the samples on a comprehensive database will be of no use and the cost of such a database would be a multiple of perhaps twenty or more (relative to the estimated cost of a limited database - option (c)).

Internationally, the percentage of the population whose profiles are retained on DNA databases (where such systems exist) varies from under 1% to approximately 9% in the UK[7], which is by far the highest proportion of any population currently profiled. The UK now believes that it effectively has the entire known 'criminal population' on its database and that it is at the optimum level of data. In recent years there has been a gradual reduction in the number of subject profiles added to the NDNAD. This is thought to reflect the levels of repeat offenders and individuals being arrested who already have a DNA profile retained on the NDNAD.[8]

It is also the case that the effectiveness of a database can be affected by factors other than the numbers on the database. Good liaison and awareness raising amongst police officers of the benefits of examining crime scenes (where they exist) for forensic material, as well as targeted use of intelligence have been identified as factors.

Although a comprehensive database would counter the argument made against limited databases (option (c) above) that they are discriminatory, the impact of such a database on the privacy rights of the whole population could be viewed as disproportionate to the purposes and operational efficiency of the system. This option was, therefore, not considered to be feasible.

3.3 Limited Database

This is the preferred option and it is the one the Government decided in 2006 to adopt. It may be distinguished from the comprehensive database on the basis that samples are taken only from persons who fulfil certain criteria. In general such systems contain a reference index, a crime scene index, elimination indexes and missing and unknown persons indexes.

3.3.1 Structure and content

The reference index contains profiles relating to suspects and/or convicted persons where the offence being investigated, or of which the person has been convicted meets certain thresholds concerning the seriousness and/or nature of offences. In the case of suspects the threshold in the Bill is defined by references to the offences for which a person may be detained by the Garda Síochána to assist with an investigation. In general this means offences which are subject to a maximum sentence of imprisonment of 5 years or more. In the case of convicted persons the threshold is similarly defined i.e. has the offender been convicted of an offence in respect of which he or she could have been detained by the Garda Síochána (with the exception that those who are subject to the registration requirements in the Sex Offenders Act 2001 who are also covered).

[7] Estimated total number of individuals (excluding duplicates) retained on NDNAD for all police forces, including Scotland and Northern Ireland as 5.95 million at 31/12/2012. Source: National DNA Database Strategy Board (2012), "National DNA Database 2011/2012 Annual Report".
[8] National DNA Database Strategy Board (2012), "National DNA Database 2009-2011 Biennial Report".

The crime scene index contains profiles generated from biological traces lifted from crime scenes. The Bill enables historic crime scene profiles to be entered in the crime scene index once the database is established.

The elimination indexes contain the profiles of those whose work puts them at risk of inadvertently contaminating crimes scenes or items recovered from crime scenes e.g. police and laboratory staff. In the Irish context it is proposed to include personnel from the Garda Síochána, the staff of the FSL, some members of the Garda Ombudsman Commission (GSOC) and the State Pathologist's Office. The possibility of including other 'first responders' such as ambulance personnel in the future is also provided for.

The missing and unknown persons index contains the profiles relating to missing persons or their relatives, profiles taken from unknown deceased persons and seriously ill or injured persons who are unable to identify themselves. This facility will be available in relation to individual cases or to deal with mass natural or manmade disasters.

3.3.2 Size

The size of the database is linked to the sampling thresholds. The UK which has the largest DNA database as a percentage of its population (approximately 9% or 5.655 million of its population is on its database) has a low sampling threshold - any person arrested and detained at a police station for a recordable offence may be sampled. The possibility of imprisonment does not arise in relation to all 'recordable offences'. New Zealand which has a higher sampling threshold has approximately 3% of its population (or 135,000 people) on its database.[9] The New Zealand threshold provides that samples can only be taken with a suspect's consent or, in the case of imprisonable offences, with a compulsion order issued by a judge.

The Kopp Review[10] was commissioned in December 2006 following from a Government decision to introduce a series of anti-crime measures. The review focused on the resource needs of the Forensic Science Laboratory and the wider scientific context in Ireland. It was chaired by Professor Kopp (the former Director of the Swedish Forensic Science Laboratory). A steering group assisted the review and comprised representatives of the FSL, academia, the Department of Justice and Equality and the Garda Síochána.

As part of the review Professor Kopp examined the volume of samples likely to be submitted to the DNA database having regard to the general scheme of the legislation that had been approved by Government[11] and concluded that the two main streams of samples which would require analysis would be the 'suspect/offender' samples and the crime scene samples. In the case of the 'suspect/offender' stream he estimated that it would generate in the region of 14,700 samples in the first year and 10,500 per annum thereafter. As mentioned above, ‘suspects’ relate to those who are detained under statutory

[9] ESR Annual Report 2012

[10] Review of Resource Needs in the Forensic Science Laboratory and the Wider Scientific Context in Ireland, Professor Ingvar Kopp published on www.justice.ie January 2008).

[11] The General Scheme was approved by Government on 9 February 2007 (S180/20/10/0880).

Garda detention powers. In 2006, 10,408 such detentions took place. As regards offenders, there are approximately 3,700 prisoners in custody (excluding prisoners on remand) and 672 on temporary release[12]. However, not all of these would be available for sampling. For example, prisoners who do not meet the sampling threshold would be excluded. There are, in addition, approximately 1,204 offenders subject to the requirements in the Sex Offenders Act 2001 (July 2012)[13].

As regards the crime scene sample stream, Professor Kopp estimated that the demand for crime scene analysis in approximately 1,000 serious cases per annum would continue (largely homicides, sexual offences and other serious assaults) but that, having regard to experience internationally, it would take some time for the submission rate for volume crime scenes to build up as the Garda Síochána and the FSL develop their systems and become familiar with the database system. He estimated it would grow from around 2,500 scenes in the first year of operation to over 10,000 per annum in year 5.

Other streams include samples provided by Garda personnel, the staff of the FSL, GSOC, and the State Pathologist's Office for the purposes of the elimination indexes of the database; samples taken from volunteers in the context of a particular investigation; and samples taken for evidential purposes in a particular prosecution e.g. where it is required following a 'cold hit' on the database.

In relation to the elimination indexes, there are approximately 15,000 personnel at present who come within the eligible categories. It is not possible to estimate how many samples will be taken in the initial stages as existing personnel on commencement will be subject to a voluntary regime. Personnel appointed following commencement will be subject to a mandatory regime and the number of samples will depend on recruitment levels.

The volunteer stream (e.g. victims, persons residing at a crime scene, the subjects of mass screens) will only arise in the context of particular investigations and is not expected to generate significant numbers of samples. While the FSL will examine and profile these samples they will not for the most part be eligible for entry in the database.

The evidential stream arises in two ways:

- in some cases because of the nature of the offence under investigation the investigating Gardaí will decide to take an evidential sample from a suspect following arrest and detention; or
- when a suspect is identified on the basis of a 'cold hit' from the database, that information cannot be used in any subsequent prosecution because it would reveal the accused's criminal record or at least previous contact with the Gardaí and would be more prejudicial than probative. In such cases a second sample i.e. an evidential sample is required.

[12] Source: IPS, 1 July 2013
[13] http://debates.oireachtas.ie/dail/2012/07/17/00472.asp (accessed 6th November 2012).

The size of this stream depends to some extent on the hit rate of the database. Professor Kopp has estimated that in the first year the hit rate will be 5% growing to 40% by year 5. Not all hits require evidential samples, for example, some cases may not go to court. On the basis of 50% of hits requiring evidential samples, Kopp estimates a rise from 125 in year 1 to around 2,000 per annum in year 5.

3.3.4 Bodily integrity/privacy rights and safeguards

DNA samples are personal data and the taking and retention of such data is an interference with the right to bodily integrity and privacy rights. Any such interference must be proportionate to the public policy aim sought to be achieved. Accordingly, the establishment of the database must be accompanied by safeguards around the taking of samples including the circumstances in which reasonable force may be used, restrictions on the use that can be made of the samples and the related profiles, restrictions on who may access the data and the length of time for which they may be retained.

3.3.5 Costs

The DNA database will be operated and maintained by the existing Forensic Science Laboratory (FSL). The samples will be supplied for the most part by the Garda Síochána but also by other bodies such as the Irish Prison Service and the Irish Youth Justice Service.

The cost implication for this option present in a variety of ways. It is anticipated that establishment costs and on-going costs would be incurred by:

(i) the Forensic Science Laboratory,
(ii) the Garda Síochána,
(iii) the Prison Service and Irish Youth Justice Service, and
(iv) by the operation of the proposed Oversight Committee.

Having regard to the potential benefits identified below these costs should be offset by reduced costs in investigating crimes and savings (arising from efficiencies expected from the introduction of a DNA database) across the criminal justice system.

(i) Forensic Science Laboratory (FSL)

The establishment of the DNA database will have resource implications for the FSL in terms of pay and non-pay expenditure. The Kopp Review referred to above examined the resource implications of the establishment of the database for the FSL in addition to resource needs to meet existing and suppressed demands on the FSL.

Personnel

The Review recommended increased staff to meet current demands but recognised that that the bulk of the resources will be needed when the volume of submitted samples begins to increase. The

recommendations regarding increases to existing staff levels to meet current demands have been implemented.

The Review included modelling which identified a staffing requirement of 64 in the first year of the operation of the database (it should be noted that this would include the existing staff complement of 35, a net increase of 29). The model also suggests an increase in the staffing requirement over the first five years of operation, as DNA is submitted from a greater number of crime scenes. Overall staffing needs will depend on demand for testing of DNA samples and will be evaluated through the usual mechanisms.

The current assessment is that there are likely to be some staffing implications. While it is possible to run the system with existing staff resources, this is predicated on the assumption that the existing staff remain. However, the age profile of the laboratory makes that unlikely. One possibility that needs to be explored is the employment of a small group of personnel on a contract basis to establish the system and a review of the resources when the system is bedded down.

Accommodation

The existing laboratory located at Garda Headquarters, Phoenix Park, is not considered a suitable location for the database as, under present circumstances and operational pressures, it is inadequate in terms of floor space and suitability of facilities. The DNA database will be an extension to the support which the existing laboratory supplies to the criminal justice system. The Kopp review took this into consideration and makes the following point regarding accommodation needs –

"The current FSL accommodation is completely inadequate, as is the provision for sample storage. However, as plans are at an advanced stage to build a new facility for the Lab, this issue was not studied in any detail as part of the Review."

It was intended to relocate the Forensic Science Laboratory to a new purpose built facility at the Backweston Laboratory Complex, the location of the State Laboratory and Department of Agriculture, Fisheries and Food laboratories. The design and planning phase of the project was well advanced but unfortunately due to the state of the public finances this project has now been cancelled. Following a recent review of State agencies, the Government have decided that if the FSL is moved to Backweston at some stage in the future when State finances permit, the option of extending the facilities of the State Laboratory currently located at the Backweston site will be fully explored in order to minimise cost and effect business synergies.

However, the fact remains that the existing facilities in which the FSL is located are not particularly suited to a modern DNA laboratory. While some additional space has been made available to the FSL and the necessary equipment is in situ and being used to run reference

samples from existing casework, the current premises imposes significant constraints and limitations.

Equipment requirements
The introduction of the database will give rise to non-pay expenditure under the headings of DNA Analysis Consumables and IT system management.

The laboratory, in the absence of legislation, has continued to upgrade and acquire the equipment necessary to the running of a database. It therefore already has in place operational state of the art technology to process the actual samples. The IT to store the profiles generated is also available. The remaining item is the LIMS (Laboratory Information Management System) which is a complex piece of key software. This essentially tracks items from receipt into the laboratory to generation of a report. The installation of this system is slower than anticipated and still has a significant outstanding cost for licences and hardware. Having regard to the above, the capital cost will be in the order of €750,000 to cover the cost of the finalisation of LIMS.
The anticipated ongoing costs while less than initially anticipated, will be dependent on the numbers generated but are unlikely to amount to more than €250,000 per annum in addition to existing budget.

Accreditation, training and competency testing
Given the change in public finances since these proposals were initially made, the FSL has progressed the technical preparation on the basis of providing an interim database which may not initially provide the full potential use of the database but will enable the State to comply with its obligations to exchange data under the Prüm Council Decision and will provide a basis for improved services as additional services are needed and staff and facilities are available.
In this context, most technology equipment needs are already in place.

(ii) The Garda Síochána

The implementation of the DNA database is expected to have a wide-ranging impact on a number of different business processes within the Garda Síochána. Many existing business processes will need to be changed and new processes introduced. The processes impacted by the implementation of the DNA database will potentially cross a number of different Garda Sections including operations, specialist units (criminal investigation, missing persons, Technical Bureau) and non-operational areas such as Human Resource Management.

Notwithstanding this the Garda Síochána has indicated that it does not foresee the establishment of a DNA database as having major set-up costs from its perspective apart from training and some minimal structural requirements. The reason for this is that by its nature the database will grow incrementally and therefore its management can in

the early stages be supported by paper audit trails and other manual systems.

Five different areas where potential costs could arise for the Garda Síochána are:

- Additional staffing
- Training
- IT requirements
- Accommodation requirements (storage)
- Consumables

Additional Staffing

Additional staff requirements will arise in the Forensic Liaison Office attached to the Garda Technical Bureau which the Gardaí propose to expand to cater for quality assurance and management of the intelligence emanating from forensic analysis of samples at the FSL and the Technical Bureau itself. The Office will prepare intelligence packages based on forensic outcomes from both centres for distribution to Scene of Crime Investigation Teams located in each Garda Division.

Considering the need for the accurate recording of all transactions relating to sample taking (personal and scene), packaging of samples and kits is critical to the development of a DNA database. The Gardaí envisage quality assurance to be a function that will be included in an expanded role for the current Crime Scene Co-Ordination Unit operating within the Forensic Liaison Office at present. It is estimated, initially, that a management staff of one additional supervisor and eight support personnel will be required to staff this office; people who must be familiar with the requirements for safeguards against contamination, appropriate packaging and all processes and documentation relating to DNA samples.

Training

With regard to training prior to commencement, the Gardaí propose to carry out training at local professional development centres and at the Garda College by training trainers initially who will undergo special training by staff from the Forensic Science Laboratory and the Garda Technical Bureau. Training Packages will also be provided for modules in recruit training, refresher training, professional development courses, crime investigation and senior investigating officer training courses. Some of these training requirements will be added to regular in-service training courses and may not give rise to specific costs.

IT Requirements

The anticipated growth of the database will require Information and Communication Technology (ICT) in the following areas: point of capture, exhibit tracking, the Forensic Liaison Office and Garda interface with the FSL. In addition to local issues, consideration will

need to be given to any longer term integration requirements with other police agencies and international policing systems such as SIS (Schengen Information System) and the necessity to exchange data under the Prüm Council Decisions.

The Garda Síochána plan to introduce a number of ICT systems in the general area of Exhibit and Case Management. This includes a module for "Exhibit Tracking" which would deal with much of the future requirements of the DNA database with the exception of the link to the FSL. (It is considered that this specific aspect would be appropriately looked at as part of the procurement of the FSL DNA database system.)

As the DNA element will be a subset of Exhibit Tracking and Case Management systems, it would be very difficult, if not impossible, to separate out specific costs relating to DNA. Also, in the current economic climate it would be difficult to say when this aspect of the overall ICT project will proceed - its development will depend very much on available resources and other key priorities in the ICT area. Accordingly, in the interim, manual processes together with some relatively small upgrades/extension of their existing exhibit tracking system will be required.

Accommodation requirements (storage)
Budget implications arise in the area of exhibit storage. As with the long term IT solution referred to above, this is part of a larger picture (with only a portion of the costs being attributable to the establishment of the DNA database). The Garda plan is to establish a Property Store in each Garda Division with enhanced facilities to manage all property coming into the possession of the Garda Síochána in that Division. A number of these are now in place with others to follow as resources permit. It is inappropriate to try to extract a portion of the cost of these for DNA purposes as they are required in any event.

Consumables
Consumables identified include: DNA sampling kits, sterile water and sterilising swabs and DNA transport kits (secure bags, boxes etc).

(iii) Prison Service/Irish Youth Justice Service (IYJS)
A proportion of the prison population (which is approximately 3,700 excluding remand prisoners at present[14]) and those on temporary release will be available for sampling following commencement of the Bill. This is also the case with child offenders who are serving sentences of detention in children detention schools (which come under the remit of IYJS). The bulk of eligible offenders will be in the prison system. This will arise predominantly as a once-off requirement at the time of commencement, with a low level of ongoing activity.

[14] Source: IPS, 1 July 2013

Costs will be incurred in providing training in the taking of samples to a number of prison officers/authorised staff in children detention schools and also in the provision of consumables i.e. DNA sampling kits, sterile water and sterilising swabs and DNA transport kits (bags, boxes etc).

Having regard to the ultimate objectives of the DNA database, which include increased detection rates, the Prison Service/IYJS may also incur additional costs arising from an increased number of prisoners/child offenders.

(iv) Operation of the proposed Oversight Committee

The Oversight Committee is to oversee the management and operation of the database by the FSL for the purpose of maintaining the integrity and security of the database and to ensure that the statutory provisions in relation to the database are complied with.

The six member Committee is to be chaired by a former or serving judge of the High Court or the Circuit Court. Other public officials will become members (including the Director of the FSL and the nominee of the Data Protection Commissioner). Some costs will be incurred in remuneration to the members (other than a serving judge and representatives of public bodies) and in expenses, subject to the consent of the Minister for Finance. The Committee is intended to be part-time. It is proposed that funds and facilities, including secretarial services, will be provided by the Minister for Justice and Equality also with the consent of the Minister for Public Expenditure and Reform.

3.3.6 Benefits

DNA analysis is a highly effective and efficient comparative identification tool. The most prominent application in Ireland to date has been in identifying perpetrators of violent crime post arrest by comparison of their biological samples against biological specimens left directly or indirectly at or taken from crime scenes (e.g. semen, saliva, hair, or blood). Significant cases have also occurred in which DNA analysis exonerated suspects (but the numbers cannot be established since no charges were brought).

The establishment of a limited DNA database of the type envisaged is expected to have the following benefits:

- Assisting the Gardaí in conducting investigations more efficiently and effectively by identifying suspects in cases in which there are no leads and by eliminating possible suspects at an early stage.
- Giving the Gardaí information on previously unknown links between different crime scenes and thereby helping Gardaí identify serial offenders both in the State and in other jurisdictions, particularly once automated sharing in accordance with the Prüm Council Decisions and Prum-like bilateral agreements is up and running.

- The ability to use DNA as an investigative tool, in tandem with fingerprints, for volume crime (such as burglary) not alone has the potential to increase crime detection but also has the potential to lead to a reduction in crime by providing intelligence on perpetrators. The logic is that criminals will be prevented from committing crime at an early stage and as a result will not continue committing crime while awaiting detection by more traditional means. The information below in respect of other jurisdictions highlights the advantages of DNA evidence in respect of this type of crime.
- DNA analysis together with other forensic methods such as fingerprinting support traditional methods of intelligence gathering - they provide hard evidence to support the softer evidence gleaned from traditional sources e.g. informants, thus giving more certainty than mere suspicion.
- DNA evidence should result in an increase in the number of guilty pleas (based on experience in other jurisdictions) thereby saving trial time and costs.
- A DNA database could also deter some offenders (who are aware that their profiles are on the database) from committing further or more serious offences.
- A DNA database would also enable unsolved earlier offences, where DNA evidence was found but not at that time linked with an offender, to be cleared up if DNA samples taken from a suspect in connection with a later offence matched the evidence found at the scene of the earlier crime.
- Those using aliases can be linked and identified.
- Ireland cannot comply with EU and international obligations without the establishment of a DNA database.

As already mentioned DNA analysis is generally associated with very serious crime such as murder or rape - its use in this jurisdiction being largely limited to such cases. However the lack of a database prevents the added advantage of identifying repeat offenders from such cases.

Such serious cases represent a small proportion of overall criminal activity. The experience internationally is that the most widespread impact has been in respect of volume crimes such as burglary, giving rise to a potential reduction in such crimes. A study conducted by National Institute of Justice of the US Department of Justice found that where DNA was added to traditional property crime investigations more than twice as many suspects were identified, twice as many suspects were arrested and more than twice as many cases were accepted for prosecution[15].

Quantifying the likely benefits for this jurisdiction with any accuracy is not possible and in any event the precise way in which a database will interact with the Irish criminal justice system is very difficult to predict. Factors may arise which will not necessarily duplicate the experience of other jurisdictions

Nevertheless, the international experience is instructive. The two longest

[15] Roman, J.K., S. Reid, J. Reid, A. Chalfin, W. Adams, and C. Knight, The DNA field Experiment: cost effectiveness analysis of the use of DNA in the investigation of high-volume crimes (April 2008)

established national DNA databases are those in the UK and New Zealand. As such these have had time to build a critical mass of profiles and also to stabilise in terms of data trends. The Scottish experience is also of interest, in terms of their success and scale.

UK

The world's first national criminal intelligence DNA database was established in the UK in 1995. The Home Office is custodian of the National DNA Database (NDNAD) since 1 October 2012. The National DNA Database Strategy Board provides governance and oversight of the operation of the NDNAD and has been put on a statutory footing following the enactment of the Protection of Freedoms Act 2012. It comprises representatives of ACPO (Association of Chief Police Officers), the Home Office, the DNA Ethics Group, the Forensic Science Regulator, the Information Commissioners Office, ACPOS (Scotland) and the Criminal Justice Service and Scientific Support Services of Northern Ireland.

As of 31 December 2012[16] the NDNAD held 6.97 million subject profiles (equates to 5.95 million individuals when duplicates are taken into account) and 405,848 crime scene profiles. The match rate for 2011/2012 in terms of new crime scene profile to subject match was 61% (32,614 matches) as opposed to a much lower overall national detection rate i.e. also 6 out of 10 new crime scene profiles entered in the NDNAD matched a subject profile already on the database. Matches also occur when a new subject profile is added to the NDNAD and matches a crime scene profile already retained on the database – the rate in 2011/2012 was 2.2%. Crime scene profile to crime scene profile matches are also generated which help to link crimes and identify serial offending, 37, 631 such matches in the 10 years from May 2001.

These figures have to be viewed in the context of recorded crime in the UK, 3.98 million in 2011/2012. Clearly, a database is of benefit in relation to particular types of crimes where there is significant physical interaction between the perpetrator and the victim or items at the crime scene that allow for DNA to be transferred in the form of body fluids or cellular material (e.g. acquisitive crimes such as burglary, and sexual and violent offences) but is of little relevance to many other types of crimes such as traffic offences, drug offences etc.

New Zealand

The New Zealand database was the second to be established and became operational in 1996. It is a joint venture between ESR (a limited company wholly owned by the New Zealand government) and the New Zealand Police. The New Zealand database currently holds approximately 135,000 individual profiles[17]. Nearly 70% of all unsolved cases loaded to the crime sample

[16] National DNA Database Strategy Board (2013) "National DNA Database 2011/2012 Annual Report".
[17] ESR Annual Report 2012

databases are linked to individuals, and 30% linked to another crime. Approximately 75 to 80% of the reported links are in respect of burglaries.[18]

Scotland

The Scottish Police Forensic Science Laboratory operates a DNA database for Scotland but also supplies profiles to the NDNAD.

As of 31 March 2011 this database held 290,770 crime scene profiles and subject profiles. The database had a crime scene profile to subject profile match rate of 52.3% for 2010/2011[19]

In considering the above experiences, it is important to bear in mind that the match rates are for cases where DNA has been extracted from a crime scene (where such have been identified) - in many cases this may not be possible for technical reasons but also the collection rate will also be dependant on police practice and the experience in some police forces in the UK is that the percentage of crime scenes from which DNA was extracted has been found to be extremely low. According to 2009 figures 17% of recorded crimes in the UK had a crime scene examination. Of those which had such an examination not all yielded forensic material. It must also be borne in mind that 'match rates' include persons who have an innocent explanation for being present at the crime scene - a match must be considered by the investigation team in conjunction with other information that it has available on the offence concerned before it can be acted upon.

The return on investment in a DNA database will, therefore, be dependent on a number of key factors:

- the number of subjects being sampled, particularly those considered to be repeat offenders;
- correct scene samples being collected in a manner to provide sufficient DNA for anaylsis;
- follow-up on matches generated.

Based on experience in other jurisdictions the Kopp Report suggests a hit rate of 40% after 5 years of operation.

As the proposed database is, in effect, an intelligence tool, its success will depend on the extent to which it is used by the police. The UK experience highlights that this involvement needs to be progressed proactively and the Home Office has sponsored a wide range of training initiatives and police developments designed to increase the value of the database.

3.3.7 Other impacts

The proposals have a significant potential impact on the rights of citizens in terms of the right to bodily integrity and the right to privacy. With this in mind

[18] http://www.esr.cri.nz/competencies/forensicscience/dna/Pages/DNAdatabank.aspx (accessed 5th July 2013).

[19] National DNA Database Strategy Board (2012) "National DNA Database 2009-2011 Biennial Report".

they have been crafted to ensure that such interference is not disproportionate to the public policy aim sought to be achieved.

In particular, in the case of the taking of samples from suspects/offenders:

- a high threshold for the taking of samples from suspects and offenders has been set, taking account of the nature and gravity of offences;
- specified information must be given to the subject before a sample is taken;
- special provisions apply to limit the impact on children and vulnerable persons;
- in the case of samples for which no consent is required, reasonable force may be used in the event that the person does not cooperate, but its use must be authorised by a senior officer and be video recorded;
- DNA sampling will normally entail the taking of buccal swabs (a swab from the inside of the cheek) or, more rarely, plucked head hairs - these types of samples come within the definition of "non-intimate" samples under the current statutory regime and are not seen as particularly invasive;
- samples are to be taken in circumstances affording reasonable privacy, and questioning of a person is to be suspended while the person is being sampled;
- the consent of the person is required where intimate samples are sought in the context of a particular investigation - specified information must be given before that consent is sought. There is provision for judicial authorisation before an intimate sample is taken from a child or protected person. Certain intimate samples must be taken by qualified medical personnel.

Safeguards are also provided in relation to the taking of samples from persons outside of these categories, e.g. for the elimination indexes, from volunteers and in relation to missing and unknown persons.

As regards the interference with the privacy rights of citizens, the proposals set out clearly state the purposes for which the samples and related profiles may be used and how long the samples and profiles may be retained. The retention arrangements, particularly in the case of persons who are not convicted subsequent to their sample having been taken, have been re-designed having regard to the 2008 judgment of the European Court of Human Rights in S & Marper v the United Kingdom in order to ensure that they do not constitute a disproportionate interference with the right to privacy (Article 8 of the ECHR). The proposals provide for:

- The destruction of samples taken from suspects, prisoners etc. for the purpose of generating a DNA profile for the DNA database as soon as the profile has been generated, or within 6 months, whichever is the later – the destruction of these samples will have no effect on the usefulness of the database as it is only the profile that is required for the database.
- A presumption in favour of removal from the database of the DNA profiles of suspects who are not convicted, subject to the Commissioner having the

power to authorise retention on the database where he is satisfied that this is necessary – a statutory test will be set out by which the Commissioner will make this decision. His decision will be appealable. The retention periods allowed will be 6 years in the case of adults and 3 years in the case of children.

- Revised arrangements for the retention of samples taken for evidential purposes including a presumption in favour of destruction of the sample relating to suspects who are not convicted subject to the Commissioner having the power to authorise retention for 12 months (which will be renewable) where he is satisfied that this is necessary – a statutory test will be set out by which the Commissioner will make this decision. His decision will be appealable.
- The Commissioner will have the option of applying to the District Court to retain profiles on the database beyond the periods mentioned above where he has good reason to do so.

The DNA profiles of persons convicted of serious offences will continue to be held on the database indefinitely.

Disclosure of data other than as permitted by the Bill is to be a criminal offence.

4. Consultation

An Garda Síochána, the FSL, Irish Prison Service, the Irish Youth Justice Service were consulted extensively during the preparation of proposals for the establishment of a DNA database. There were informal consultations with the Office of the DPP. Internal consultations also took place with relevant Divisions. The views of the Irish Human Rights Commission and the Data Protection Commissioner were taken into account.

In addition, of course, the proposals draw heavily on the report of the Law Reform Commission (published in November 2005) which was prepared following the publication of an earlier *Consultation Paper on the Establishment of a DNA Database* in March 2004. The consultation process undertaken by the LRC included a seminar on the establishment of a DNA database which was held in September 2004.

Key issues which arose during the consultations were (i) the threshold for the taking of "intelligence" samples (ii) safeguards to apply to the taking of samples, particularly to vulnerable suspects, and (iii) the retention of such samples and the profiles derived from them.

With regard to (i) - the sampling threshold - the proposal in the Bill seeks to adopt the middle ground by providing for the taking of samples from persons detained in Garda custody pursuant to statute irrespective of whether the sample will assist the particular investigation in relation to which the person has been detained. In essence this means that samples can be taken from persons detained in Garda custody - generally a person may only be detained if suspected of involvement in an offence punishable by 5 years or more imprisonment. This contrasts with, for example, the position in the UK which

is that samples may be taken from persons arrested for recordable offences i.e. generally although not always offences punishable by imprisonment.

Notwithstanding that the Bill's proposals do not go as far as the UK they represent an extension to the current arrangements by removing the requirement that a sample may only be taken from a suspect where it is relevant to the offence for which he/she has been detained. Children under 14 years and vulnerable suspects (called 'protected persons' in the Bill) will not be subject to sampling for the purposes of the database. They will continue to be subject to the possibility of being sampled where such samples are required for the purposes of a particular investigation.

With regard to (ii) - safeguards - provisions have been added to the Bill in relation to the circumstances in which samples should be taken, e.g. concerning the requirement for reasonable privacy. In addition, special provisions have been included with regard to vulnerable persons who come within the term 'protected person' in the Bill. The term 'protected person' encompasses persons who, by reason of a mental or physical disability, lack the capacity to understand the general nature and effect of the taking of a sample or lack the capacity to indicate (by speech, sign language or any other means of communication) whether or not he or she consents to a sample being taken. The special provisions largely replicate the special provisions applying to children.

With regard to (iii) - retention - the proposal in the General Scheme approved by Government in 2007 to create a presumption that samples/profiles would be retained indefinitely irrespective of whether the person was convicted or not was revised having regard to observations received, in particular those from the Irish Human Rights Commission, and developments in ECtHR case law during the preparation of the 2010 Bill. The approach has been further revised since the publication of that Bill in order to ensure that interference with privacy rights is proportionate and can be justified having regard to the public policy aim sought to be achieved i.e. the detection of crime. The revised proposal continues to allow indefinite retention in the case of convicted persons (with some exceptions for child offenders) but re-introduces the presumption in favour of destruction of samples contained in the Criminal Justice (Forensic Evidence) Act 1990 (subject to some modifications to make it more workable) and also applies it to the removal of profiles from the database in the case of persons who are not convicted as set out at para. 3.3.7 above.

The revised proposals represent an improvement on our current statutory arrangements and on our unregulated common law system.

5. Enforcement and compliance

Given that the role of the Garda Síochána is the prevention, investigation and detection of crime, that organisation will be keen to maximise the benefits from the new intelligence source and will use the proposed powers to the fullest extent possible. To ensure the process is rigorously controlled, provision is made for the development of codes of practice and protocols

governing the taking of samples and their transmission to the FSL. As with all resources available to the Gardaí, the Garda Inspectorate is charged with ensuring that they are used to best effect.

To ensure that the proposed database is operated and managed in accordance with the legislation, provision is made for an Oversight Committee (described at para. 6 below). In addition, the proposals provide that the use of a sample or profile other than for the purposes set out in the Bill is a criminal offence, with maximum penalties of up to five years imprisonment.

6. Review mechanism

The proposals for a limited DNA database include the establishment of an oversight committee. The proposed function of the Oversight Committee is to review and report to the Minister on the operation of the legislation, having particular regard to the importance of ensuring the overall integrity of the arrangements and systems operated under the legislation. A representative of the Data Protection Commission will be an *ex officio* member of the Committee, as will the Director of the FSL. The Minister, when appointing other members, is to have regard to their qualifications, experience or expertise in science and human rights. The Committee will be chaired by a serving or former Circuit or High Court judge.

The arrangements for the Oversight Committee, together with; the requirement on the Minister to review, within 6 years, the part of the Bill which sets out the destruction/retention arrangements for samples/profiles, the requirement on the FSL to produce an annual report, the proposed codes of practice and protocols concerning a range of operational issues such as the taking and transmission of samples; add up to an extensive set of independently verifiable control mechanisms that are designed to underpin the integrity of the system.

7. Conclusion

In conclusion, it is considered that the establishment of a DNA database, underpinned by a comprehensive legislative framework, is justified having regard to the anticipated benefits. This conclusion is based on the experience, albeit limited, in Ireland to date, and also takes account of the experience in other jurisdictions.