INDEPENDENT REVIEW OF THE NATIONAL INSTITUTE OF FORENSIC SCIENCE

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Contents

APPENDICES

ACRONYMS

ADVIC	ANZPAA Disaster Victim Identification Committee
AFFSAB	Australasian Field Forensic Science Accreditation Board
AGD	Attorney General's Department (Commonwealth)
ANZPAA	Australian New Zealand Policing Advisory Agency
APMC	Australian Police Ministers' Council
ASCLD/LAB	American Society of Crime Lab Directors
AtF	After the Fact
CSPAC	Crime Scene Proficiency Advisory Committee
CWALN	Chemical Warfare Agent Laboratory Network
DVI	Disaster Victim Identification
MCPEM-P	Ministerial Council for Police and Emergency Management - Police
NATA	National Association of Testing Authorities
SAG	Specialist Advisory Group (a SMANZFL group)
SMANZFL	Senior Managers of Australian and New Zealand Forensic Laboratories
SWG	Scientific Working Group (a SMANZFL group)

EXECUTIVE SUMMARY

In 2013, the Board of the Australia New Zealand Policing Advisory Agency (ANZPAA) directed a review be undertaken of the National Institute of Forensic Science (NIFS).

The Institute was founded in 1991–1992 by the Australian Police Ministers' Council. As a result of decisions in 2008 by the Ministerial Council for Police and Emergency Management – Police (MCPEM-P), NIFS was established as one of three Directorates in ANZPAA, which is hosted by Victoria Police on behalf of the Australia and New Zealand police jurisdictions.

From 2014–2015, NIFS will be wholly governed and funded by Australian police jurisdictions. The rapidly diminishing value of that funding, largely unchanged since NIFS' inception, means that decisions on the Institute's future need to be made with the minimum of delay.

While acknowledging that forensic science evidence in criminal proceedings is characterised by its impartiality, of the fourteen forensic science disciplines, services relating to four of those are provided from within police organisations in Australia. Services in relation to the balance are provided by a range of different organisations in the States and Territories and New Zealand, including health departments, justice agencies and academic institutions. This multiple provider environment, extending well beyond police organisations, needs to be reflected in NIFS' governance body.

Taking into account the experience of other countries, notably the United States which is actively seeking to establish a body with roles similar to NIFS, the review addressed whether there is a continuing need for a body like NIFS; if there is, what its role should be; and whether NIFS is appropriately governed, structured and resourced to perform that role. The review finds that there is a continuing and substantial need for a body such as NIFS.

That need is at least as great as when it was first established and further, a body like NIFS would need to be established if it didn't already exist. The role of NIFS is essentially the same as when it was established but must continue to be reflective of changing conditions and issues. If it is to achieve its role and functions within our system of justice and in the community, and remain effective, NIFS' governance and resourcing requires serious and urgent reconsideration.

Various options were considered which might address the issues identified, however the review concludes that the resolution of these must be led by the determination by responsible Ministers of a new governance body capable of addressing the needs and requirements of forensic science in Australia and New Zealand.

It is only on this basis that the many issues associated with the resourcing, structure and priorities of NIFS can be resolved by those parties who have the collective responsibility and expertise necessary to make the decisions.

The review identified that the Institute is ideally a stand-alone, independent body and that this should be the ultimate goal.

However the current fiscal environment means that a pragmatic, less costly option is more likely to be feasible for decision-makers in the medium term. The current location of NIFS within ANZPAA has advantages, and the establishment of a dedicated new governance body for NIFS separate from the ANZPAA Board does not appear to necessarily require a shift of NIFS' current location.

Further detailed work would be required to identify the implications of such an arrangement, and this work would need to be completed quickly, but it is the recommendation of the review that this is the best of the realistic options.

Taking into account the issues inherent in the current arrangements and the outlook for NIFS' ability to continue to fulfil its role under the current funding model, the review concludes that it is critically important for the future of forensic science in Australia and New Zealand that decisions are made in the very near future with respect to its recommended new governance body from which work and decisions can flow with respect to NIFS funding, role, structure and priorities.

RECOMMENDATIONS

RECOMMENDATION 1

Noting:

- that it was the Australian Police Ministers' Council which established the National Institute of Forensic Science (NIFS) in 1991 and, in 2008 its successor body, the Ministerial Council for Police and Emergency Management - Police, approved NIFS' placement within the Australia New Zealand Policing Advisory Agency (ANZPAA) and its governance by the ANZPAA Board
- that this independent Review of NIFS finds that the important roles and functions for which NIFS was established, including as a result of significant judicial scrutiny in criminal cases, are even more strongly present today and are envisaged to remain so for the foreseeable future
- that establishing NIFS as a standalone, independent entity should remain the ultimate goal however, based on consultations carried out as part of this Review, this does not appear to be a likely prospect in the near future
- NIFS is currently funded by contributions from the Commonwealth Attorney-General's Department (AGD) and the Australian Police Commissioners, and with the cessation of Commonwealth AGD funding from 2014–2015, funding will be wholly provided by the Australian Police Commissioners
- NIFS' funding level has not substantially changed since it was established and, left at the reduced level from 2014–2015, NIFS will soon be unable to operate
- that of the 14 forensic science disciplines, only four are within Police Commissioners' command with the remainder under the control of health or justice agencies, or academic institutions
- that while Police Commissioners have a substantial interest in forensic science, the public interest in forensic science extends well beyond policing
- that urgent action, starting with NIFS' governance arrangements, is needed to ensure NIFS can continue to provide its valuable roles and functions

it is recommended that a new governance body be established for NIFS which is representative of the wider forensic science community, and that this governance body, once approved by Ministers, determine funding and other arrangements necessary for NIFS to sustainably continue its roles and functions.

RECOMMENDATION 2

It is recommended that, until it becomes possible to establish NIFS as a standalone, independent entity, by agreement between the recommended new governance body and the ANZPAA Board, NIFS continue as a Directorate within ANZPAA the Agency.

RECOMMENDATION 3

It is recommended that the ANZPAA Board monitor the current funding situation with respect to NIFS and, if necessary, consider an increased funding contribution to enable NIFS to continue performing its roles and functions while decisions on the recommended new governance body and funding and other arrangements are made.

INTRODUCTION

> *"The term "forensic science' encompasses a broad range of forensic disciplines, each with its own set of technologies and practices. In other words, there is wide variability across forensic science disciplines with regard to techniques, methodologies, reliability, types and numbers of potential errors, research, general acceptability, and published material. Some of the forensic science disciplines are laboratory based ....; others are based on expert interpretation of observed patterns.... The 'forensic science community' in turn, consists of a host of practitioners, including scientists (some with advanced degrees) in the fields of chemistry, biochemistry, biology, and medicine; laboratory technicians; crime scene examiners; and law enforcement officers."* [1]

Whilst forensic science is most commonly associated with the investigation and prosecution processes of the criminal law, it is important to emphasise at the outset that its areas of operation are not so confined.

The provision of high quality and independent forensic science services for all jurisdictions within Australia and New Zealand is important for both countries for a number of reasons related to community welfare. These include, of course, the effective operation of their systems of criminal justice but also involve a wide range of civil rights and responsibilities, the gathering of intelligence in relation to international and domestic threats to the health and safety of their citizens and the development of social and legislative policy in related areas.

Integral to the provision of such services are the undertaking of research in both the physical and social sciences, the dissemination of information concerning and within the disciplines involved and the development and maintenance of appropriate common standards of quality and integrity across jurisdictions and disciplines.

It was in pursuit of these objectives that the National Institute of Forensic Science (NIFS) was established in 1991 by agreement between the Commonwealth and the States and Territories. Its functions, as set out in the Agreement, were to:

- sponsor and support research in forensic science of common interest to the parties
- advise on and assist with the development and co-ordination of forensic science services between the parties
- gather and exchange forensic information, including through the establishment of a national forensic science reference service
- support, co-ordinate and conduct training programs in forensic science
- conduct relevant quality assurance programs.

Whilst these functions were broadly described, in context, they were primarily directed to addressing issues that had been identified in the provision of forensic science services to policing agencies and the criminal justice process. Since that time there has been greater recognition of the potential contributions that the various disciplines can make to community health and safety beyond the investigation and prosecution of individual matters. This broader view of the role of forensic science underpins what follows in this Report.

Although the issues presented by the Terms of Reference of this Review of the current structure and operation of NIFS are differently expressed (see Appendix 1), three central questions have been raised for consideration, namely:

1. Is there a continuing need for such a body, and specifically NIFS, within the forensic science arrangements in Australia and New Zealand?
2. If so, what should be its proper role?
3. Is NIFS appropriately structured and supported to perform that role and, if not, what is required?

In my opinion, the answers to those questions shortly expressed are:

1. YES -There is a need for a body to perform the tasks given to NIFS and which it has been endeavouring to undertake to the present time. Indeed, an arguable case can be advanced that, in view of the increasing sophistication and internationalisation of much criminal conduct together with greater pressures upon our system of justice generally, the performance of these functions is at least as, if not more, important. Whilst there has been an increasing level of reliance upon the evidence of forensic science 'experts' in the legal systems of many countries across the world, there have been questions raised concerning the adequacy of the science underlying specific disciplines, sometimes as a result of very public discrediting of forensic evidence in criminal cases. As these experiences and those of the United States and Australia, to which I will return, have shown, if a body with the functions of NIFS did not exist, it would need to be established.

1. *Strengthening Forensic Science in the United States* (Report of the National Research Council of the National Academies 2009).

INTRODUCTION CONTINUED

2. The role should be essentially the same but strengthened, bearing in mind that its operational priorities must reflect changing conditions and issues.

3. NIFS has a much wider range of stakeholders and a necessarily broader relationship with our system of justice and the community than is reflected in its current governing and funding structures. There is no need for the devolution of its functions to any other body or bodies, even if any could be identified.

   There are none of which I am aware that could currently perform its range of activities without substantial adaptation and effectively becoming NIFS and the splitting of its roles would be quite counterproductive to the achievement of the objectives for which it was established, in my view. NIFS was intended and has operated to provide a form of connective tissue, linking the many different components of a multi-jurisdictional system vulnerable to fragmentation and aiding the development and maintenance of proper standards of quality. The fragmentation of the work of NIFS itself would be unlikely to assist these endeavours. The arrangements under which it currently operates require urgent reconsideration, if it is to remain substantial and effective.

The rationale for these conclusions and some possible options for the future of NIFS will be discussed in this report.

FORENSIC SCIENCE, INTELLIGENCE GATHERING AND SOCIAL POLICY

It can, I think, be safely stated that there would be no serious dispute that the reduction of the incidence of anti-social behaviour and its consequent impact upon community health and social and economic activities can only, in part, be achieved through traditional law enforcement approaches. This has long been recognised by policing agencies and those engaged in the criminal justice system generally.

The questions posed by the proliferation of designer and synthetic drugs for the health and safety of the community, and the continuing debate as to the appropriate responses to the general issue of drug abuse illustrate the complexity and multi-dimensional nature of the kinds of problems currently being encountered and the consequent need for continuing research and information both within and external to the criminal justice system.

Intelligence gathering, using a range of technologies and physical and social science analyses can make a valuable contribution to the control of such activities; assisting the detection and prosecution of offenders as well as the adoption of different approaches to prevention.

These may take the form of the development or adoption of new or updated policies or technologies, evidence-based reallocation of limited resources by investigators, or changes in approach based on identification of the risk factors present in a given situation or social environment and that need to be addressed.

In a recent article addressing the wider role of forensic science in the public sector, Dr T. B.P.M. Tjin-A-Tsoi, CEO of the Netherlands Forensic Institute commented that:

> *"The capabilities of forensic service providers have not passed unnoticed in domains outside of criminal justice and law enforcement.....Non-traditional customers include ministries of defence, municipalities, intelligence agencies, benefit and fraud investigators, the financial market regulator, transport safety boards, competition authorities, and international bodies, such as the international tribunals and criminal courts, but also Europol, Interpol, the IAEA, and the United Nations."* [2]

The experience in Australia is similar with emerging requirements from customs and migration authorities among others.

Nor have the opportunities afforded by new discoveries and technologies passed unnoticed by those prepared to exploit them for socially destructive purposes.

All countries are confronted with criminal enterprises and terrorist activity that are now frequently international in scale, with those engaged employing sophisticated concealment practices and complex methodologies in their activities.

The recent exposure of paedophile rings operating in many countries and the techniques adopted in large scale drug and weapons importation and production provide examples of the nature and difficulty of the challenges facing society generally at both the domestic and international levels. They certainly cannot be met without an adequate level of understanding of what is happening and a continuing capacity to respond as developments occur.

The implications for public safety and health, both human and environmental, and for the general economy hardly require elaboration.

There are obvious and important roles for the forensic science disciplines in these areas and it is necessary only to refer to the objectives set out in the 1991 agreement and to which reference has earlier been made, to appreciate the valuable role that NIFS could perform through the sponsoring of research and the gathering and dissemination of relevant forensic information.

Its capacity to do this has been severely restricted by inadequate and effectively declining funding.

2. *Trends, Challenges and Strategy in the Forensic Science Sector*, March 2013 (The Netherlands Forensic Institute is described as an independent government agency and part of the Ministry of Security and Justice)..

FORENSIC SCIENCE AND THE LEGAL SYSTEM

Traditionally, disputed issues of fact in our courts and tribunals have been and still are, in large measure, determined on the basis of the oral testimony of witnesses who describe what they have directly experienced through their senses. Usually, this amounts to what they have seen and heard. There is easily demonstrated and well understood fallibility associated such observations.

This has resulted in the development of a complex set of rules of evidence that operate as filtering mechanisms and an increasing reliance upon the findings and conclusions provided by forensic science disciplines. The objective is to ensure, as far as reasonably possible, that the ultimate determinations arrived at in our courts and administrative tribunals are sufficiently reliable to be accepted by our legal system and society.

Properly understood, evaluated and applied, the insights provided by forensic science to investigators and courts in these processes can be of great value. They have the potential of inculpating the guilty and exculpating the innocent. However, there are concomitant dangers.

As a large number of cases that have arisen in Australia and other jurisdictions across the world demonstrate, the perceived probative power of the evidence of persons claiming specialist expertise and the limited ability of those involved in our various legal processes to understand and employ such evidence appropriately, carry risks of injustice.

This is by no means a solely Australian dilemma as Justice Mark Rosenberg pointed out in his foreword to *Forensic Science in Canada, A Report of Multidisciplinary Discussion*[3]:

> *"Reliable forensic evidence, reported accurately and presented with clarity and honesty in court and with limitations clearly expressed, can be essential for the correct resolution of many criminal and civil cases.*
>
> *Beginning in the 1990s several developments have affected the use of expert forensic science evidence. In its 1994 decision, R v Mohan [1994] 2S.C.R.9, the Supreme Court of Canada commented on the risks associated with forensic evidence;*
>
> > *"There is a danger that expert evidence will be misused and will distort the fact finding process. Dressed up in scientific language which the jury does not reasonably understand and submitted through a witness of impressive antecedents, this evidence is apt to be accepted by the jury as virtually infallible and as having more weight than it deserves.*
> >
> > *..... the legal community has struggled to understand what the experts are telling us and to ensure that fact-finding is not distorted by 'junk' science, by clinical experience presented as forensic science, or forensic science inaccurately presented."*

Nor is it a new problem. The acceptance of the opinions of 'experts' in all manner of pseudo-scientific fields, including witchcraft, and inability to understand, evaluate or properly employ expert evidence have resulted in famous examples of miscarriages of justice.

Resort to new scientific insights and technologies within our fact finding processes can reasonably be expected to continue to increase. To the extent that this can improve the investigative and fact finding processes of the community it is highly desirable.

At the same time, the knowledge gap between those working in the various specialist disciplines and those performing roles within the system of justice, whether at the investigatory or legal process stages, is likely to become greater. There will almost certainly be increased pressures upon a system that sometimes experiences difficulty in coping satisfactorily with those with which it is currently confronted.

How should the issue of the knowledge gap be addressed? There are a number of possible answers to this question, most of which are well outside the ambit of this Review or, indeed, the operational areas of those engaged in policing or the forensic science disciplines themselves. They could involve fundamental changes being made to our fact finding processes including, for example, the composition of the tribunals that determine these issues.

A good argument can be advanced that some disputed matters should be referred to specialist panels for determination. Certainly, and at a minimum, far better education of those engaged at all the levels of the system is required.

Relevantly in the present context, what the legal system can reasonably expect from those engaged in the various forensic science disciplines is to ensure that their findings and opinions are objective, scientifically and experientially well based and independent of external sectional influences or involvement. This requires continuing research and the development and implementation of best practice models.

There must be adequate understanding by those engaged as investigators, prosecution and defence legal representatives, and the judiciary of the real evidential value and limitations of the findings and opinions presented.

3. Centre for Forensic Science and Medicine, University of Toronto May 4-5, 2012.

FORENSIC SCIENCE AND THE LEGAL SYSTEM CONTINUED

The experts themselves must possess sufficient appreciation of their role and responsibility as independent witnesses. None of this will be realistically attainable unless the necessary work is undertaken and the acquired knowledge and understanding is sufficiently communicated across all of the groups and individuals involved.

This combination of challenges is unlikely to be adequately addressed without some facilitating body that connects and informs participants and the community generally. That is a fundamentally important role and rationale for the existence of NIFS.

THE EVOLUTION OF NIFS AND THE UNITED STATES: A COMPARISON

An appreciation of the importance of the contribution of forensic science in achieving justice and safety for the citizens of the United States led to the enactment by Congress of the *Science, State, Justice, Commerce, and Related Agencies Appropriations Act* (2006). The National Academy of Science was appointed to consider a wide range of questions relating to forensic science services in that country. Whilst the position in Australia is considerably better than that addressed in their subsequent report, there is much to be gained, including some comfort, from consideration of their experience.

Underlying the recommendations of the Committee, and echoing the concerns that led to the establishment of NIFS in Australia, were the findings that:

> *"For decades, the forensic science disciplines have produced valuable evidence that has contributed to the successful prosecution and conviction of criminals as well as the exoneration of innocent people. Over the last two decades, advances in some forensic science disciplines, especially the use of DNA technology, have demonstrated that some areas of forensic science have great additional potential to help law enforcement identify criminals. Many crimes that may have gone unsolved are now being solved because forensic science is helping to identify the perpetrators.*
>
> *Those advances, however, also have revealed that, in some cases, substantive information and testimony based on faulty forensic science analyses may have contributed to the conviction of innocent people. This fact has demonstrated the potential danger of giving undue weight to evidence and testimony derived from imperfect testing and analysis. Moreover, imprecise or exaggerated expert testimony has sometimes contributed to the admission of erroneous or misleading evidence.*
>
> *Further advances in the forensic science disciplines will serve three important purposes. First, further improvements will assist law enforcement officials in the course of their investigations to identify perpetrators with higher reliability. Second, further improvements in forensic science practices should reduce the occurrence of wrongful convictions, which reduces the risk that true offenders continue to commit crimes while innocent persons inappropriately serve time. Third, any improvements in the forensic science will undoubtedly enhance the Nation's ability to address the needs of homeland security."*

As in Australia, the limited capacity of the judicial system in the US to evaluate scientific evidence was identified as a significant problem.

> *"The adversarial process relating to the admission and exclusion of scientific evidence is not suited to the task of finding 'scientific truth'. The judicial system is encumbered by, among other things, judges and lawyers who generally lack the scientific expertise necessary to comprehend and evaluate forensic evidence in an informed manner, trial judges (sitting alone) who must decide evidentiary issues without the benefit of judicial colleagues and often with little time for extensive research and reflection, and the highly deferential nature of the appellate courts' review afforded trial courts' Daubert[4] rulings. Given these realities, there is a tremendous need for the forensic science community to improve. Judicial review, by itself, will not cure the infirmities of the forensic science community."*[5]

The Committee recommended that:

> *"To promote the development of forensic into a mature field of multidisciplinary research and practice, founded on the systematic collection and analysis of relevant data, Congress should establish and appropriate funds for an independent entity, the National Institute of Forensic Science (NIFS). NIFS should have a full-time administrator and an advisory board with expertise in research and education, the forensic science disciplines, physical and life sciences, forensic pathology, engineering, information technology, measurements and standards, testing and evaluation, law national security, and public policy. NIFS should focus on:*
>
> 1. *establishing and enforcing best practices for forensic sciences professionals and laboratories*
> 2. *establishing standards for the mandatory accreditation of forensic science laboratories and the mandatory certification of forensic scientists and medical examiners/forensic pathologists- and identifying the entity/entities that will develop accreditation and certification*

4. *Daubert v Merrell Dow Pharmaceuticals Inc 509 U.S. 579 (1993)*, See also *Kumbo vTire Co. Ltd v Carmichael 526 U.S. 137 (1999)*. It is not necessary for the purposes of this Review to set out the position in Australian and New Zealand jurisdictions where a more rigorous approach has been adopted at the appellate level.

5. *Strengthening Forensic Science in the United States - A Path Forward* (2009). Report to Congress of the National Academy of Sciences.

3. *promoting scholarly, competitive peer-reviewed research and technical development in the forensic science disciplines and forensic medicine*
4. *developing a strategy to improve forensic science and educational programs, including forensic pathology*
5. *establishing a strategy, based on accurate data on the forensic science community, for the efficient allocation of available funds to give strong support to forensic methodologies and practices in addition to DNA analysis*
6. *funding state and local forensic science agencies, independent research projects, and educational programs as recommended in this report, with conditions that aim to advance the credibility and reliability of the forensic science disciplines*
7. *overseeing education standards and accreditation standards of forensic science programs in colleges and universities*
8. *developing programs to improve understanding of the forensic science disciplines and their limitations within the legal system*
9. *assessing the development and introduction of new technologies in forensic investigations, including a comparison of new technologies with former ones."*

Although these recommendations reflect some important differences between the broad situation in the United States and that in Australia, they serve to emphasise that the challenges for our forensic science disciplines and legal system are essentially the same.

There will inevitably be difficulties in ensuring the presence of up-to-date common standards in a multi-jurisdictional environment with numerous different disciplines, particularly where there is the compartmentalising effect of a federal structure. Variations in approach and administrative arrangements and territorial concerns are, as a practical proposition, to be expected.[6]

As a matter of social and political reality there is, I believe and in common with the US, little likelihood that a single centralised regulatory structure for forensic science would be accepted across the jurisdictions in Australia. Certainly, it would not happen 'any time soon'.

The need, however, to ensure the presence and maintenance of common and up-to-date standards of quality and research within forensic science disciplines is self-evident and has long been recognised in this country. It is now over forty years since the Commonwealth Attorney-General, in response to a recommendation of an annual Conference of Chief Commissioners of Police, established a 'Committee of Enquiry' for this purpose in November 1974.[7]

The proposed method of addressing the deficiencies identified at that time was the creation of a research and training centre in Canberra responsible to the Commonwealth Attorney-General. Remarkably, there appears to have been no consultation whatever with any of the States in the course of that Inquiry and, unsurprisingly, the proposal came to naught.

Four years later, Sir Robert Mark, who had been engaged by the then Commonwealth Minister for Administrative Services to report on the organisation of police resources in the Commonwealth area, described the situation as "from a police point of view quite alarming."

He drew attention to the:

> *"great deal of variation between the tests used by comparable laboratories in the different States, their methods of reporting results and the conclusions that are drawn from those tests."*

He concluded that:

> *"Great regard must be paid to the status of Forensic Science Laboratories. It is undesirable for them to be located in police buildings, or under the control of, or even partly staffed by police officers in the guise of technicians. The requirement is for well-qualified scientists who are seen to demonstrate their neutrality. Apart from a police liaison officer with very limited duties there seems to be no reason at all for police officers to become involved in the work of a forensic laboratory."*[8]

Sir Robert placed strong emphasis upon the maintenance of a clear demarcation between the role of police members and that of the forensic scientists involved in an investigation. He was obviously conscious of the importance of ensuring the integrity of the process both in perception and reality. The need for such a clear separation of function was powerfully demonstrated only shortly afterwards in the *Splatt* Royal Commission.[9]

6. Some of these differences can be seen in the attached diagram showing the location of the forensic science disciplines; see Appendix 5.

7. The key findings and the structure proposed are set out in Appendix 6.

8. *Report to the Minister for Administrative Services on the Organisation of Police Resources in the Commonwealth Area and Other Related Matters.*

9. Infra.

Similar concerns were repeated in the 1980 report of the Australian Royal Commission into Drugs headed by Mr Justice Williams. He supported the setting up of a national system of forensic science laboratories. Noteworthy, for present purposes, is his recommendation that each laboratory

> *"be independent of police as to premises, staffing and administration."*[10]

Two years later, a task force established to address this issue recommended to the Australian Police Ministers' Council that:

1. *"The Australian Police Ministers' Council (APMC) establish a National Institute of Forensic Science (NIFS)*
2. *The charter of NIFS include the following functions:*
    a. *support of research in forensic science matters of common interest*
    b. *advice on co-ordination of routine forensic science services science services*
    c. *gathering and exchange of forensic information*
    d. *training in forensic science*
    e. *conduct of relevant quality assurance programs.*
3. *The NIFS be administered by a Director responsible to a council of which he shall be a member*
4. *Council comprise a Chairman, the Director and eight part-time members appointed by the APMC*
5. *Council members include representatives from State police departments, universities or colleges of advanced education, industry, professional institutes (including forensic associations) and private consultants. At least one member of the Council should be a practicing forensic scientist*
6. *The NIFS have only a relatively small permanent staff (administrative and scientific) but provide adequate accommodation for seconded staff and other research workers (e.g. staff from police forces, research fellows in forensic science, university research workers and guest lecturers)*
7. *The NIFS sponsor a number of research fellows in forensic science, guest lecturers and symposia or conferences in areas of need or interest; sponsor research and development grants tenable in the various police forces, government departments and instrumentalities, universities or colleges of advanced education or the NIFS if appropriate; and arrange contract research where necessary."*[11]

The composition of the governing council of the proposed body indicates that regard was had to the range of stakeholders and community interests involved and recognition that the provision of satisfactory forensic science services was not solely a matter of concern to policing agencies.

The need for the maintenance of proper standards for forensic science evidence in criminal trial settings was emphasised in two subsequent Inquiries conducted in the 1980's into wrongful convictions.

In the first of these inquiries, the *Splatt* Royal Commission previously mentioned[12], the Commissioner remarked:

> *"The trial, as it was conducted, represented an encounter of the closest possible nature between two systems or disciplines: the discipline of Law and the discipline of Science. It is my opinion that, from this close encounter, neither discipline escaped unscathed;"*
>
> *"In the context of the directions of law to the jury the scientific evidence was the very core of the case and from that central core it spread out like a mantle over virtually the totality of the matters that the jury had to determine."*

He was particularly critical of what he described as the 'dual role' of the police member in charge of the 'Scientific Section' of the South Australian Police Force who also "*virtually took over the whole of the police inquiries ...The methods which were followed in this case arising from the relationship between Sergeant Cocks and the forensic scientists* [who effectively worked under him - my interpolation] *highlighted all the danger signs for 'unconscious bias'."*

10. Australian Royal Commission of Inquiry into Drugs. & Williams, E. S. 1980, *Report/Australian Royal Commission of Inquiry into Drugs* Australian Govt. Pub. Service Canberra.

11. Butler, S.T., "*Taskforce to Inquire into Certain Aspects of Forensic Science Services for Police, Report to the Australian Police Ministers Council*", March 1982.

12. Royal Commission of Inquiry in Respect to the Case of Edward Charles Splatt (S. Aust.).& Shannon, Carl Reginald. (1984). *Royal Commission report concerning the conviction of Edward Charles Splatt.* [Adelaide]: Govt. Printer.

The Commissioner also highlighted a fundamental dilemma of our system of jury when confronted with complex scientific evidence.

> *"The Inquiry - in its length, the complexity and variety of the evidence (involving a number of quite disparate scientific disciplines), and the multiplicity of difficult scientific concepts which had to be understood and evaluated - highlighted for me, the great problems involved in jury trials of this nature have to be considered and determined; the problems being so detailed and convoluted that the jury needs to be furnished with considerable assistance. If the Trial had had been conducted substantially in the same manner and with the same degree of meticulous detail as was the Inquiry before me, I have no doubt that the jury's obligation properly to reach a verdict would have been virtually impossible: i.e. within the mode of operation which is, in general, utilised in the conduct of criminal jury trials."*

Justice Morling in his report on the second of these Commissions (the Chamberlain Inquiry) referred to the need to establish a National Institute of Forensic Science. He commented on the difficulties created by the absence of national standards in a number of areas and stated,

> *"Such an Institute might also be a centre for the exchange of information on, and the location of reliable experts in unusual fields of expertise."*

He made the point, directed to avoiding potential injustice, that:

> *"Juries may attach great weight to the opinions of experts on matters outside the competence of the layman to understand. It is essential that everything possible be done to ensure the opinions expressed by experts, especially Crown experts, be soundly based and correct. In many cases, the opinions expressed by the Crown's experts are accepted by the defence. If they are not accepted, the resources of an accused person may well not suffice to enable him to challenge them."*[13]

The challenges presented to the legal system by miscarriages of justice of this kind cannot be relegated to the past as the relatively recent cases of *Wood*[14] in New South Wales and *Jama*[15] in Victoria.

Each involved a conviction that was subsequently found to rest upon expert forensic evidence that was unreliable or inadequate to support the necessary findings.

It is noteworthy that, as this Report was in the course of preparation, Acting Justice Brian Martin who conducted an Inquiry into the conviction of David Eastman in the Supreme Court of the ACT for the murder of Assistant Commissioner of Police, Colin Winchester, then Chief Police Officer for the ACT, released his recommendation that the accused should be pardoned, consequent upon his finding that the issue of guilt was determined on the bases of crucially important but "*deeply flawed forensic evidence*".[16]

The case provides examples of a range of problems that can arise in this area, including the adequacy of the scientific base to support the evidence or opinion expressed by the expert, the character of the relationship between the expert and the investigators and prosecutors involved, and issues concerned with the extent of disclosure to the defence, particularly when the information may potentially impact upon the credibility and reliability of the expert's evidence.

His Honour concluded that:

> *"While I am fairly certain the applicant is guilty of the murder of the deceased, a nagging doubt remains."*[17]

Although he regarded the circumstantial evidence adduced by the prosecution as establishing a strong case, he did not consider it to be overwhelming. The forensic expert's evidence was crucial against that background.

It was vitally important that that evidence could be accepted as independent of bias, soundly based in science and its limitations understood and disclosed.

Having concluded that there were serious deficiencies in each of these respects, as he made clear it was apparent that the conviction should not be permitted to stand.

13. Australia. Royal Commission of Inquiry into Chamberlain Convictions & Morling, T. R. (Trevor Rees), 1927- & Australia. Parliament & Northern Territory. Royal Commission of Inquiry into Chamberlain Convictions (1987). Report of the Commissioner the Hon. Mr. Justice T.R. Morling. Govt. Printer, Canberra.

14. Wood v R [2012] NSW CCA 21.

15. Inquiry into the circumstances that led to the conviction of Farah Abdulkadir Jama (May 2010).

16. Inquiry into the Conviction of David Harold Eastman for the Murder of Colin Stanley Winchester; Report of the Board of Inquiry, p.2.

17. Ibid.

The National Institute of Forensic Science - NIFS

Largely, it seems, precipitated by these two Inquiries, NIFS was finally established in 1991 pursuant to an agreement between the Commonwealth and all States and Territories.[18]

Its functions were stated to be to:

a. *"sponsor and support research in forensic science of common interest*

b. *advise on and assist with the development and co-ordination of forensic science services*

c. *gather and exchange forensic information, including through the establishment of a national forensic reference service*

d. *support, co-ordinate and conduct training programs in forensic science*

e. *conduct relevant quality assurance programs."*

The new body was directed to:

a. *"co-ordinate, support and sponsor research fellowships, guest lectureships, symposia and conferences in forensic science*

b. *sponsor research and development grants in forensic science tenable within departments and authorities, including participating [police] forces, of the parties to this Agreement or within universities or colleges of advanced education constituted under legislation of the parties to this Agreement or within NIFS if appropriate*

c. *as appropriate, arrange for research in forensic science to be carried out by contract within Australia or overseas."*

These functions, it will be observed, were essentially the same as those recommended for a proposed body by the Ministerial Council approximately nine years earlier.

NIFS initial governance structure consisted of a Board of Control, a Directorate and a Panel of Advisors.[19] The importance of the provision of forensic science services to the investigative agencies was clearly recognised in these arrangements. However, it is also apparent that the interests of a range of other stakeholders were taken into account.

As mentioned, its establishment constituted a partial response to the questions raised in the *Splatt* and *Chamberlain* Commissions and provided one of the mechanisms for the avoidance of similar unfortunate outcomes in our criminal law processes.

NIFS was expected from the outset to function as a facilitative body to assist, through its encouragement of research and participation in symposia and other educational activities, in increasing knowledge concerning forensic science not only within forensic science and policing communities but in the other elements of the system of justice. It was intended to provide a necessary form of connective tissue directed to the maintenance of quality and integrity among the various components of a structure susceptible to fragmentation and inter-jurisdictional distrust and rivalries.

NIFS is, from 2014–2015, funded solely by the Australian police agencies[20] and is directly under the control of the Board of the Australia New Zealand Policing Advisory Agency comprised of Commissioners of Police and the ACT Chief Police Officer. An advisory Board called the NIFS Forum has been established but its membership and powers are quite limited. It contains, for example, no representative of the legal profession or government departments.

The structure is problematic for several reasons. Not only has it resulted in an unduly restricted income base to support NIFS' work but renders the body entirely dependent upon one component in an interactive structure and effectively a single perspective. This is not to suggest that there has been any conflict of interest affecting the work of NIFS.

It is simply a consequence of the fact that the role of ANZPAA is appropriately limited to addressing policing issues and facilitating co-operation between the different jurisdictions. In this context, it should also be borne in mind that most of the forensic science disciplines are not subject to any direction or control by policing bodies nor are their activities funded by them.

At establishment in 1991 NIFS' funding was $788,000 per annum. Over the subsequent 22 years this has increased, but not commensurate with increases in costs including salaries, to the current level of $966,450. In 2000, salaries constituted approximately 30% of NIFS total funding; in 2014 this increased to approximately 60% (see figure below).

18. National Institute of Forensic Science Enabling Agreement 1991.

19. The structure is set out in Appendix 7.

20. The funding basis is set out at Appendix 8.

With total salary costs increasing each year according to relevant movements and entitlements, this has inevitably meant that operating funds available for achieving NIFS priorities and outputs has significantly decreased. This has been exacerbated with the removal of Commonwealth AGD funding, which is a 16% reduction in NIFS funding. Without further funding, the funding trajectory is to reach a point where NIFS will no longer be able to operate.

NIFS has been able to maintain its connections and support its various activities by virtue of the high level of co-operation it has received from stakeholders, in particular SMANZFL and ANZPAA itself, and its careful exploitation of research funding sources, including research linkage grants. Some revenue has been generated from various activities, e.g. charging for materials provided for proficiency testing, but whilst this has been helpful, it cannot be seen to be the answer to NIFS future viability.[21]

The effective continuing reduction resulting from the absence of adjustments over many years is clearly not sustainable and whatever else is done in relation to NIFS, its funding arrangements require attention.

21. Removal of AGD funding to NIFS and consolidation of residual funds – Minutes of ANZPAA Board Meeting 25, Item 7, decisions 1-5.

NIFS ACTIVITIES

Turning to the activities undertaken by NIFS, the point must be made at the outset, that whilst it continues to engage in a remarkable variety of activities, its small human[22] and financial resources significantly restrict its capacity to contribute in an adequate manner in a number of them or maintain a satisfactory level of engagement with its present stakeholders, setting to one side the undertaking of any additional related work.

NIFS is an internationally respected agency with no counterpart in any other country. Some, however, have established bodies to undertake parts of its role and collectively perform most of its functions. In the UK, for example, the Forensic Science Regulator (FSR) focuses primarily on the development and application of forensic standards and quality issues. Other areas that NIFS would address are dealt with by a number of separate agencies, such as the Home Office and the Centre for Science and Technology.

The European Union has a body representing an amalgamation of laboratories that provides guidance and has a role in information exchange, research and development but which is more appropriately compared with the Senior Managers of Australia and New Zealand Forensic Laboratories (SMANZFL) than NIFS. In the USA, endeavours have been made to establish a body similar to NIFS to address serious problems affecting the provision of forensic science in that country but to date they have not been successful.

A Forensic Commission has been established which will advise the Federal Attorney-General who then will determine whether to require the laboratories or others in receipt of federal funding to follow any recommendations made. The first meeting of the Commission took place in February, approximately six years after the NAS report was delivered to Congress. There are thousands of forensic laboratories subject to State oversight to which these arrangements do not apply.

There are advantages in the NIFS model in terms of efficiency and cost. A single body that facilitates the establishment and maintenance of common high quality standards and the dissemination of information across jurisdictions and disciplines is, in my view, clearly preferable to a structure under which these inter related functions are addressed in a fragmented fashion.

22. Removal of AGD funding to NIFS and consolidation of residual funds – Minutes of ANZPAA Board Meeting 25, Item 7, decisions 1-5.

Sponsor and Support Research in Forensic Science

There was, and still is, no central body in Australia which is responsible for, or which has the capacity to drive a national forensic science research agenda. One of the primary objectives for the establishment of NIFS was to partially address this deficiency. As I earlier remarked, if NIFS did not exist, there would be a need for it to be established.

Some broad areas that have been recently recognised by representatives of the NIFS Forum and the academic research community as requiring attention include:

- forensic science and technology advancement
- forensic intelligence
- forensic science fundamentals
- portable and rapid forensic solutions
- forensic science value and effectiveness.

These priorities, it should be noted, have also been identified in the US, the UK and Europe.

Currently, NIFS is engaged in a minor way in linkage grants[23] that provide funding for industry and academic research partnerships. This has enabled some leveraging of the very small amount available to it to promote research activity. NIFS is also involved in legal internship programs that provide a limited capacity for preliminary work at the interface between science and the law.[24] Research topics have included emerging DNA issues, security issues related to data management in the 'cloud' computing environment and legal changes required to address new psychoactive substances.

NIFS has been given a role in encouraging and assisting in the co-ordination of research activities and in the dissemination of the knowledge gained. If anything, the importance of that function has increased as a consequence of rapid technological and social change and, in an environment of greater sophistication, organisation and internationalisation of criminal conduct. The need for continuing adequate research to address these challenges is, in my view, beyond dispute.

23. NIFS is involved in the following ARC research grants: Effectiveness of Forensic Science, The Presentation of Expert Evidence in Australian Criminal Trials, Forensic Reasoning and Uncertainty, Interfaces between Science Medicine and Law Enforcement, Forensic Platform Technologies.

24. NIFS engages with academic institutions such as Monash University to provide short term (four week) placements for late stage undergraduates for research into specific legal questions.

Assist with the Development and Co-ordination of Forensic Science Services between Jurisdictions

Within this function, NIFS engages with the forensic science community on issues that are cross-jurisdictional and cross-discipline in character. Over recent times, these have included:

- The End-to-End Forensic Investigation Process Project. This project, in which all jurisdictions participated, studied the efficiency of the forensic science process from the time that a crime is reported through to the time that investigators act on information provided as a result of forensic analysis.
- Predictive DNA and Rapid DNA technology. NIFS has some limited involvement in these areas. Rapid DNA is relatively new technology with significant potential for more effectively populating DNA databases and therefore increasing the detection of criminal offenders.
- Forensic Intelligence. NIFS has been involved in two workshops on this subject and is collaborating in the publication of a special edition of the Australian Journal of the Forensic Sciences on forensic intelligence.
- Forensic Fundamentals. The US report was critical of the lack of an apparent scientific basis and validation of the 'pattern matching sciences' in particular. These include fingerprints, document examination and the examination of marks and impressions. The criticism extended to a lack of knowledge of error rates and inconsistent protocols. These issues are fundamental to the credibility of forensic science and its presentation in the court room. As part of its annual workshop program, NIFS is working with the Document SAG[25] and the Impressions SWG with respect to validation studies and reporting protocols. NIFS is also engaged with the Fingerprint SWG with respect to error rates.
- Cognitive Bias. NIFS has engaged Victoria Police Forensic Services to conduct workshops on this issue.

NIFS is concerned to facilitate further work in each of these areas in addition to others presently under discussion.

These include the development of a national forensic science data management and exchange system, the defining of drug analogues in view of the continued emergence of new designer drugs, including a range of synthetic cannabinoids and the development of discussion and position papers on emerging issues possessing potential to impact upon stakeholders.

Facilitate Information Exchange between Relevant Parties

From the outset, NIFS has been recognised as having a role as a facilitator of information exchange nationally and internationally that extends through its broad stakeholder base to the general public. In addition to participation in workshops, conferences, the use of websites and teleconferencing, NIFS has maintained a substantial international network.[26]

With its very small staff numbers, it has been difficult for NIFS to maintain these international networks which are valuable to the domestic forensic science community and at the same time attend to its primary responsibilities in Australia.

From NIFS perspective, the major challenges in this area relate to the maintenance of the contemporary nature of the information available and disseminated to the forensic science community and other relevant bodies, the circulation of its newsletters and the significant networks with which NIFS is connected and which are of benefit to the Australian forensic science community.

Support, Co-ordinate and Conduct Training Programs in Forensic Science

The only constant in the area of forensic science is the fact of change. If the various elements of the broad system of justice on which our society depends are to keep abreast of developments, it would seem obvious that there must be continuous education and training programs available.

NIFS is involved in the development and maintenance of education and training programs predominately in field sciences.

25. Specialist Advisory Groups (SAGs) and Scientific Working Groups (SWGs) are formed by SMANZFL to advance areas of specific forensic science interest. NIFS accesses relevant expertise in SWGs and SAGs in progressing it's work program, including through the provision of funding for travel for SWG and SAG meetings, venue hire and catering (but not accommodation). The broader issue of the relationship between NIFS and SMANZFL is a matter for the new governance body recommended for NIFS, including the policy settings with regard to NIFS funding of costs associated with SWG and SAG meetings.

26. International associations include: International Forensic Strategic Alliance, European Network of Forensic Institutes, United Nations Office on Drugs and Crime, INTERPOL, American Society of Crime Lab Directors, the Forensic Science Regulator UK, College of Policing UK, National Forensic Science Technology Centre USA, National Institute of Justice USA, Asian Forensic Science Network, and numerous contacts at individual international forensic laboratories, law enforcement agencies and academia.

These include the development of national training curricula and, in conjunction with ANZPAA, education and training guidelines as part of the implementation of the Police Practice Standards Model.[27]

NIFS conducts an annual program of five to six workshops for knowledge and technology transfer over a range of contemporary issues and disciplines in the forensic sciences and four expert evidence training workshops each year and one biennial workshop for new practitioners.

NIFS has recently been liaising with the tertiary education sector and forensic science service providers to secure grants to support an initiative to develop education and training guidelines for providers, educational institutions and students.

Co-ordinate the delivery of Relevant Forensic Science Quality Assurance Programs

National forensic science laboratory accreditation was launched by the National Association of Testing Authorities (NATA) and the Laboratory Accreditation Board of the American Society of Crime Laboratory Directors (ASCLD/LAB) in 1994. Development of the program was driven by NIFS and SMANZFL.

NIFS has worked closely with NATA since that time. All save one government forensic science service provider are now accredited under the program. NIFS has representation within NATA as current Chair of the Board of Directors, membership of the forensic science accreditation advisory committee and participation in the laboratory assessment process.

The Australasian Forensic Field Sciences Accreditation Board, through NIFS as the secretariat has responsibility for accrediting individual practitioners, for re-accreditation on an annual basis and a more comprehensive points-based re-accreditation every five years. The issues of professionalisation of some field science areas continue to present difficulty in different jurisdictions and a substantial amount of work needs to be undertaken.

NIFS established the Crime Scene Proficiency Advisory Committee to set up crime scene proficiency testing in Australia. This is an ongoing activity with constant adaption and development of the testing tools.[28]

NIFS has been involved in the development of forensic science standards. Funding received from Commonwealth confiscated proceeds of crime has enabled the completion and publication of four core standards (collection, analysis, interpretation and reporting). It is intended that discipline specific guidelines to complement them will be developed as a joint SMANZFL/NIFS initiative. There has also been funding by NIFS for the development of an international standard related to DNA collection consumables. NIFS holds the Chair of the international committee.

Recognition of the need to address the problems resulting from a largely fragmented multi-jurisdictional environment and to develop common up-to-date standards within forensic science disciplines and between jurisdictions were, it would seem clear, the primary motivations for the endeavours that ultimately led to the establishment of NIFS. That is an ongoing task as the situation is constantly changing.

27. The Police Practice Standards Model is an important element of the Australia New Zealand Police Professionalisation Strategy 2013–2018 in establishing education and training guidelines, envisaged to become standards, for all facets of policing practice. Over twenty sets of guidelines have been approved by the Australia New Zealand Council of Police Professionalisation (ANZCoPP) at the time of this report, including guidelines addressing Forensic Firearms Examination and Forensic Fingerprint Investigation. Guidelines for Forensic Investigation are in progress.

28. There is partial cost recovery for this quite significant work and an ongoing demand on the NIFS Administration Officer in maintaining the proficiency system.

NIFS STAKEHOLDERS AND ASSOCIATIONS

The following list of bodies with which NIFS is linked provides some indication of the widely diverse range of its involvements and the various interests to be served by the forensic science disciplines. It also points to the difficulties confronting NIFS, with its limited resources, in fulfilling its potential.

- ANZPAA NIFS funding bodies (i.e. from 2014–2015, Australian Police Commissioners)
- NIFS Forum[29]
- Senior Managers of Australian and New Zealand Forensic Laboratories (SMANZFL)[30] and the specialist advisory groups
- forensic science service providers (Government Departments mainly based in Health, Justice , Attorneys-General, Science and Police).

Other groups include:

- ANZPAA Disaster Victim Identification Committee (ADVIC).[31] This body has responsibility for policy, procedures and standards and training with respect to disaster victim identification in Australia and New Zealand. Its membership consists of the DVI Commander from each jurisdiction and practitioners in the disciplines of forensic biology, odontology, anthropology, and mortuary management. The Australian Defence Force has affiliate membership. NIFS works with ADVIC to develop business plans which currently include a comprehensive review and implementation of the DVI Commander training program. NIFS works with ADVIC to arrange an annual meeting of the Committee.
- Chemical Warfare Agent Laboratory Network (CWALN).[32] The membership of this body consists of representatives of SMANZFL laboratories in Australia and New Zealand and the Defence Science and Technology Organisation (DSTO). It is responsible for procedures, standards and training with respect to preparedness for and responding to chemical incidents of a terrorist and other criminal nature. This is in consultation with the SMANZFL laboratories and DSTO. NIFS works with CWALN to develop annual business plans which currently include the establishment of a comprehensive spectral database and a project to develop national protocols for the management of 'white powder' incidents. NIFS works with CWALN to arrange two meetings of the Committee each year.
- Crime Scene Proficiency Advisory Committee (CSPAC). This body, to which reference has been made above, was established by NIFS to set up crime scene proficiency testing in Australia. Its membership consists of five senior crime scene examiners rotating between the jurisdictions. 'After the Fact' (AtF) is a web deliverable proficiency testing tool developed by NIFS for the crime scene environment. No other suitable test is available and approximately 400 practitioners in Australia access the program on an annual basis. NIFS works with and provides funding CSPAC to develop two new scenarios annually; one for volume crime and the other for complex crime. The scenarios are set up and filmed in locations relevant to the scenario (e.g. a service station for an armed robbery and a motel room for a sexual assault). CSPAC is responsible for providing a comprehensive report to each participating facility.
- Australasian Field Sciences Accreditation Board (AFFSAB). The role of this body is to provide accreditation (certification) for individual practitioners in crime scene investigation, fingerprint identification and firearms examination. NIFS assumed responsibility for this in 2008 when NIFS was integrated into ANZPAA. Membership consists of the Director of NIFS, a representative of SMANZFL, the Chair of the Field and Identification Sciences Specialist Advisory Group, a discipline specific expert for each of the three disciplines covered and a legal representative. AFFSAB has developed a comprehensive policy and procedures manual which is reviewed annually. NIFS is currently working with AFFSAB to recommend new pre-requisite qualifications for accreditation following a review of the national training programs.

29. NIFS Forum membership is set out in Appendix 10. It is to be noted that there is no representation of the legal profession or Justice or Health Departments.

30. Although SMANZFL as a body has been in existence since 1986, it is an informal group representing only some of the laboratories engaged in forensic science work.

31. ADVIC has a distinct funding line from jurisdictions within the NIFS budget. Future work should consider whether the reporting line of ADVIC to NIFS is the best fit. While DVI employs forensic science in its operational work, ADVIC might be considered as first and foremost facilitating an important operational capability and therefore ought to have a different reporting line.

32. CWALN work is separately funded through AFP.

- CrimTrac. This body is responsible for developing and maintaining national information sharing services between State, Territory and Federal law enforcement agencies. These services include the National Automated Fingerprint Identification System (NAFIS) and the development of an Australian Ballistics Information Network (ABIN) including a National Firearm Identification Database (NFID). NIFS works closely with CrimTrac in its forensic-related projects and sits on the NCIDD Users Advisory Group. NIFS represents ANZPAA on the CrimTrac Strategic Issues Group (the advisory group to the CrimTrac Board of Management).[33] NIFS, and indeed the wider agency that is ANZPAA, supports CrimTrac in endeavouring to achieve cross-jurisdictional consensus on such matters as data sets and models.
- National Association of Testing Authorities (NATA). The Director of NIFS is currently Chair of the NATA Board of Directors and NATA Council. NATA is the accreditation body for a number of discipline areas including forensic science. It accredits to recognised international standards and additional science specific criteria through a field application document. NATA has a number of field specific accreditation advisory committees and NIFS is represented on the forensic science committee.
- Standards Australia (SA). This is the official standards setting body for Australia. NIFS has representation on the forensic science standards committee of this body. NIFS is currently working with SA and ISO to develop an international standard and Chairs the committee responsible for its development. NIFS is also working with SMANZFL and its specialist advisory groups to develop discipline-specific guidelines which, in conjunction with SA are likely to become national standards. The guidelines will cover the broad scope of the forensic sciences covered by the eight specialist advisory groups.
- Research Organisations such as CSIRO and Defence Science Technology Organisation (DSTO). NIFS is represented on the Board of the CSIRO Centre for Australian Forensic Soil Sciences. There is currently a representative of DSTO on the NIFS Forum and NIFS representatives work with DSTO representatives on CWALN. NIFS has also engaged with DSTO on a number of research and development projects.
- Engagement with police is an ongoing aspect of NIFS' program and NIFS is tasked by, and reports to, the Police Commissioners of all jurisdictions through the ANZPAA Board. NIFS works with operational police through the various ANZPAA Forums.[34] NIFS is presently engaging with police investigators and intelligence analysts through a workshop on forensic intelligence being organised in conjunction with the AFP.
- 'Partner' agencies:
    a. National Forensic Science Technology Centre (NFSTC). This body with which NIFS has a long standing collaborative relationship is based in Florida, USA. It was under a joint venture agreement with NFSTC that the web deliverable AtF program was developed. That collaboration continues with the development of enhancements and new annual scenarios. The joint venture resulted in significant savings for NIFS and attracted a grant from the National Institute of Justice in the USA. NIFS has also worked with NFSTC in the development of Primers which provide information targeted to forensic scientists, police and the legal profession on individual forensic science disciplines.
    b. College of Policing (CoP). NIFS has a long standing collaborative relationship with the National Training Centre (NTC) in Durham, UK which provides crime scene and fingerprint training for the majority of police forces in England and Wales. The NTC is now part of the College of Policing. The collaboration has largely been in the area of competency training and development and in the evaluation of AtF, which has been trialled by six UK police forces.
    c. International Forensic Strategic Alliance (IFSA). This is an umbrella body representing the six international forensic science networks. In conjunction with SMANZFL, NIFS has been involved in much of the initial documentation for the establishment of IFSA and more recently the development of minimum requirements (crime scene examination) particularly for developing countries. IFSA provides NIFS with considerable insight to international forensic science issues. INTERPOL and the United Nations Office on Drugs and Crime (UNODC) are partners of IFSA.

33. It is, of course, important for CrimTrac to be well informed about the science behind the system it operates.

34. For example, NIFS is to provide a report to the ANZPAA Crime Forum on the outcomes of the End–To-End Forensic Science Process Project. This involved a study of efficiency and effectiveness in the investigation of burglaries from scene attendance to the reporting of forensic evidence, including DNA and fingerprint links to police investigators. There are seven ANZPAA Executive-level forums, including the NIFS Forum.

- Academia (as educators and research partners).
- Learned Societies including the Australian and New Zealand Forensic Science Society (ANZFSS) and the Australian Academy of Forensic Sciences (AAFS).

A notable omission from the above list is any active involvement of NIFS with the courts or the legal community. NIFS reports that its opportunity to engage has been limited. For the reasons already outlined with respect to the role of forensic science in the system of justice and, in particular the lessons that emerge from the earlier Royal Commissions and identified miscarriages of justice, I regard this deficiency as regrettable.

THE PRESENT STRUCTURE

The broad structure of NIFS remained relatively unchanged until a Review was conducted in 2008 when it came to be established within ANZPAA. The rationale for this change does not emerge clearly from the documentary material examined in the course of this Review but it appears to have been that NIFS had primarily been established as a "national police service intended to meet the strategic needs of police services in the specialist area of forensic science."[35]

In my view, there is a question as to the appropriateness of a body which was established to provide what I have heard described as connective tissue linking the different components of the overall system to be effectively accountable to only one of them. There is a related issue as to the appropriateness of a governing body with no representation of any of the disciplines involved, very limited basis for the possession of specialist understanding of forensic science issues, and no involvement of those engaged in the operation of the legal process.

Nevertheless, on any view of the matter, as the policing bodies represented within ANZPAA are clearly the primary users of forensic science services, it is essential for them to have substantial input and to be fully involved. Any change in the arrangements would, of necessity, have to accommodate their highly important interests and concerns.

As I see it, the inadequacies of the present arrangements, which I am confident are well understood by the ANZPAA Board that initiated this review, relate to the fact that they do not reflect the broad range of societal interests impacted upon by forensic science disciplines and the appropriately limited role of ANZPAA itself.

Even within the current framework of the provision of forensic science services to policing agencies, there is such a wide variety of arrangements in the States and Territories that the Police Commissioners who comprise the ANZPAA Board do not have responsibility for many of them (see Appendix 5).

The following example serves to indicate the kind of difficulties that can arise.

In 2009, forensic laboratories began to investigate options for updating and extending the DNA core markers used for law enforcement purposes (the system was at that stage 12 years old and contained 9 markers). Some laboratories had already moved to larger DNA analysis kits containing 16 markers and these were used for matching on local jurisdictional databases as well as the National Criminal Investigation DNA Database (NCIDD) hosted by CrimTrac.

After considerable debate a final recommendation by SMANZFL's Biology SAG to extend the core marker set to 18 was approved by SMANZFL. The issue was also taken to the ANZPAA Board for approval (see Appendix 4 for the full approval process).

However, in essence, this was not required as laboratories had previously demonstrated that new kits could be introduced without the approval of the relevant jurisdictional Police Commissioner and seven of the ten government DNA service providers lie outside of policing governance processes in any event.

Although not directly within the scope of this Review, I draw attention to the important resource implications for CrimTrac of inadequate processes in this area given its responsibility for the maintenance of the national database. The question arises as to how and by whom these types of cross-jurisdictional decisions should be made.

In the absence of some centralised body with responsibility to set enforceable standards, there should clearly be a structure and process in place to facilitate the agreement and adoption of common standards across jurisdictions and laboratories.

If, as I consider is the position, the current governance and funding arrangements for NIFS, which has been established to perform this function are unsatisfactory, then the question arises as to how this situation should be addressed.

35. The current NIFS structure and staffing is set out at Appendix 9.

OPTIONS IN RELATION TO NIFS

a. Retain the status quo

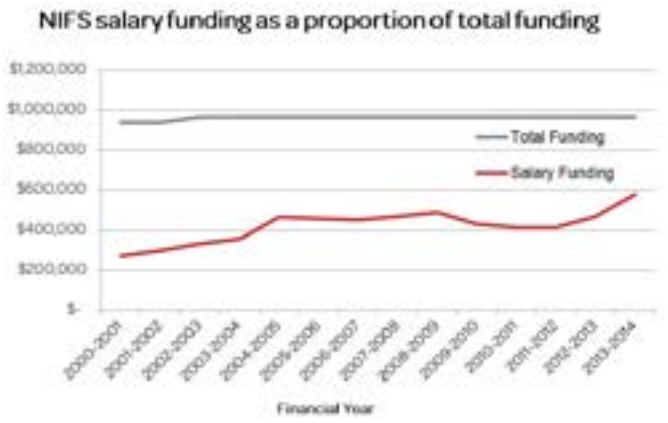
This is the simplest approach to a difficult problem. The primary drawbacks in its adoption are that the current arrangements neither reflect the range of societal interests involved in the use and potential of forensic science nor are they represented in what is, if permitted to continue, a quite inadequate NIFS funding level. The present arrangements inappropriately leave the financial burden on the current contributors and, unless some adjustments are made, it is reasonable to anticipate that NIFS has a limited future and will soon not be sustainable.

b. Retain the status quo with increased funding

This option represents the absolute minimum requirement for the continued sustainability of NIFS. The burden would never be likely to be heavy, given the nature of its role and limited additional staffing requirements when shared among the jurisdictions as the individual contributions would still remain relatively small.

However, it can reasonably be anticipated that the members of the ANZPAA Board, operating under severe budgetary constraints and with many competing demands, may well be reticent about financially supporting a number of NIFS' activities that fall outside the central policing role or making increased contributions at this time.

Nevertheless, I consider that it is essential at least some additional short term support be provided to compensate for the withdrawal of Commonwealth AGD funding and to enable NIFS to continue to function until more satisfactory arrangements are agreed upon.



c. Leave NIFS within ANZPAA but with a New Governance Structure and Funding Arrangements

This option involves the establishment of a separate governance council and funding arrangements. The new council would still operate under the auspices of ANZPAA but represent a wider stakeholder and operational perspective. Its membership would be similar to that envisaged at the time NIFS was established and which existed until 2008 and include representation of State justice and health departments, the legal profession, the forensic science disciplines and academia.

The option possesses the advantage of maintaining a clearly necessary level of involvement of the jurisdictions presently represented by NIFS' contributors. It would also allow for a larger and separate funding base to be developed with partner organisations or affiliates contributing directly in support of its operations.

In addition to the present contributors, the possibility of linking with other government agencies would need to be explored in this context.

Academic and private research bodies approved by the new governance body could perhaps also be joined as affiliate members and contributors. Management of systems and processes to ensure an appropriate level of integrity and accountability would, by agreement with the ANZPAA Board, remain the responsibility of ANZPAA but otherwise NIFS would operate under the direction of its governance body in a relatively similar fashion to the pre-2008 position.

There would obviously be a deal of work required to set up any such new arrangements and engagement with the Commonwealth, State and Territory Governments, and New Zealand would be necessary.

d. Convert NIFS to a separate statutory body accountable to a Government Minister

Whilst this would seem to afford a solution that encompassed the broader relationship between forensic science and the diverse elements contributing to our systems of justice, health and community safety, I have doubts about its practicality. Preferably, as a national body primarily concerned with the maintenance of standards in an important area of public interest across the country, it should be located in or accountable to a Commonwealth department.

However, there is within the Commonwealth and all State and Territory Governments at the present time observable reluctance to create and fund new statutory entities. Indeed, the trend appears to be towards their reduction. Expenditure restraint is emphasised by all governments. With respect to NIFS, the Commonwealth Attorney-General's Department has from 2014–2015 ceased its contribution of one-sixth of NIFS funding and may not be interested in accepting a continuing responsibility for it. Whilst an arrangement under which NIFS was housed with a single State Government may be possible, this would have to be the subject of negotiation at an inter-Governmental level.

e. **Establish NIFS as a separate standalone entity**

There are a number of problems associated with this option, including potential difficulties in attracting participating bodies and the development of a sustainable funding base. In any event, whilst NIFS is inadequately staffed and funded and requires additional resources, its role and functions do not require a substantially larger body. The additional costs involved in the establishment and maintenance of a new standalone entity would almost certainly render this option unacceptable to the various bodies that would have to be approached to fund it, leaving it extremely vulnerable.

f. **Dissolve NIFS leaving its different functions to be performed by other bodies, including academic institutions**

Although some of NIFS functions could be and are performed by other bodies, none of them, as far as I am aware, would be presently able to take over the whole of its role and certainly not without becoming a substitute NIFS . Each of the present stakeholder possibilities, like ANZPAA itself, is based in and reflects a particular component of the overall system. That limitation is a major problematic feature of the present arrangements and any restructuring should address it. NIFS is performing a public role. It was established to facilitate the development of an integrated high quality system of forensic science service delivery with common standards and ongoing research in relevant areas. These are important areas of public policy. The dissolution of NIFS and the possible continued reduction in public support would, in my opinion, be a retrograde step, rendering the attainment of these internationally recognised objectives substantially more difficult.

COMMENTS ON THE NIFS REVIEW TERMS OF REFERENCE

Comment is provided below on the specific elements of the Terms of Reference of this Review.

Objective

To conduct an independent review of the National Institute of Forensic Science (NIFS) Directorate of ANZPAA to identify recommendations for ANZPAA Board consideration with respect to the future of NIFS.

Purpose

1. *The purpose of the NIFS Review is to examine and, where appropriate, make recommendations regarding:*

   1.1. *whether the current roles and functions of NIFS remain appropriate, and any changes*

   The Review finds that the current roles and functions are essentially the same as those approved at NIFS' inception. A new governance body is best placed to reconsider NIFS roles and functions in relation to resourcing provided.

   1.2. *whether the NIFS' business model, including the structure, funding, resourcing, operating policies and procedures, is a sustainable model for the future taking into account any recommendations with respect to NIFS roles and functions*

   NIFS current governance and resourcing does not provide for a sustainable business model and needs to be urgently addressed. The principles which underpin the operating policies and procedures of NIFS need to be the subject of decision-making by NIFS' new governance body.

   1.3. *the groups which report to NIFS (i.e. the NIFS Forum and the ANZPAA Disaster Victim Identification Committee or ADVIC), taking into account the ANZPAA Groups Handbook*

   A governance arrangement which draws in appropriate representation of the forensic science community is recommended. The question as to the appropriateness of the reporting line of ADVIC to NIFS is one which should be considered by the recommended governance body taking into account the views of the ANZPAA Board.

   1.4. *the relationships NIFS has with other bodies, including the Senior Managers of Australia and New Zealand Forensic Laboratories (SMANZFL) and its Scientific Working Groups and Specialist Advisory Groups*

   The role of SMANZFL (and its subsidiary groups, the SWGs and SAGs) and its relationship with NIFS needs to be considered and determined by the new governance body.

   1.5. *the current state of NIFS' integration into ANZPAA, and whether NIFS ought to remain a Directorate of ANZPAA*

   The current state of integration of NIFS within ANZPAA has been taken as far as it reasonably can be given the issues identified in this Review regarding governance. It is anticipated a new governance body will agree its relationship with the ANZPAA Board given the recommendation that NIFS continues to be located within ANZPAA the Agency.

   1.6. *issues and opportunities relevant to NIFS, including but not limited to:*

   - *research and development, taking into account decisions of the ANZPAA Board relating to the cross-jurisdictional policing research feasibility study*

   The Review finds that NIFS has an important role to play in research and development, but it cannot continue to play a meaningful and sustainable role with the current governance structure and resourcing. The Cross-jurisdictional Policing Research Model (CPRM) Feasibility Study was considered by the ANZPAA Board in April 2014, and an implementation plan was requested to be provided. It is envisaged the CPRM will encompass forensic science research within its ambit.

   - *development of forensic science standards*

   This is considered to be one of NIFS core roles but is necessarily subject to decisions of the new governance body, comprised of representatives of the forensic science community with the responsibility and expertise to make decisions.

- *continuation, expansion or discontinuation of current projects*

The current state and trend of NIFS funding means that NIFS' ability to engage in projects is limited and diminishing. It is therefore important that NIFS involvement in projects is considered by the new governance body and funding is reconsidered without delay.

- *emerging national or Australia and New Zealand initiatives*

This is an important role for NIFS. The new governance body for NIFS is envisaged to have NIFS' monitoring of these initiatives as a priority activity.

- *forensic science fundamentals (i.e. the state of the underlying science relating to specific forensic science disciplines)*

The state of the underlying science relating to specific forensic science disciplines is being questioned in a number of countries, sometimes as a result of very public discrediting of forensic science evidence in criminal cases. It is critical for a body such as NIFS to be able to undertake work at the direction of a new governance body to preserve and advance the scientific basis for forensic science and especially for its role in the criminal justice system.

- *DNA-related developments*

The DNA-related field has developed at great pace in recent years and it is likely this will continue in the foreseeable future. It is essential a body such as NIFS is monitoring developments and providing advice to its governance body on how best to support and position forensic science to best take advantage of the opportunities offered by DNA-related developments. It is anticipated the new governance body would have this monitoring and advisory role prioritised amongst NIFS activities.

- *international developments in forensic science, including in 'Five Eyes' countries*

The review has taken into account developments in forensic science in other countries, notably the United States where efforts are being made to establish a body with similar roles to NIFS.

- *intellectual property in products of NIFS or where NIFS is a party, and the exploitation of that property.*

The question of ownership of Intellectual Property (IP) of products produced in NIFS-related activities is unclear. The existence and extent of any interest in the product of research possessed by NIFS would depend, among a number of matters, upon its existence as a legal entity, the role it played in its creation, including its contractual arrangements with the researchers or body with respect to the work undertaken. These matters would need to be addressed by the new governance body.

CONCLUSION

During the course of the Review, I have had the opportunity to consult widely with ANZPAA members and others familiar with the situation. There has been no disagreement conveyed concerning the questions to be considered.

The need for the continuation of NIFS is well accepted. The central issues have related to its governance and accountability structure and funding arrangements.

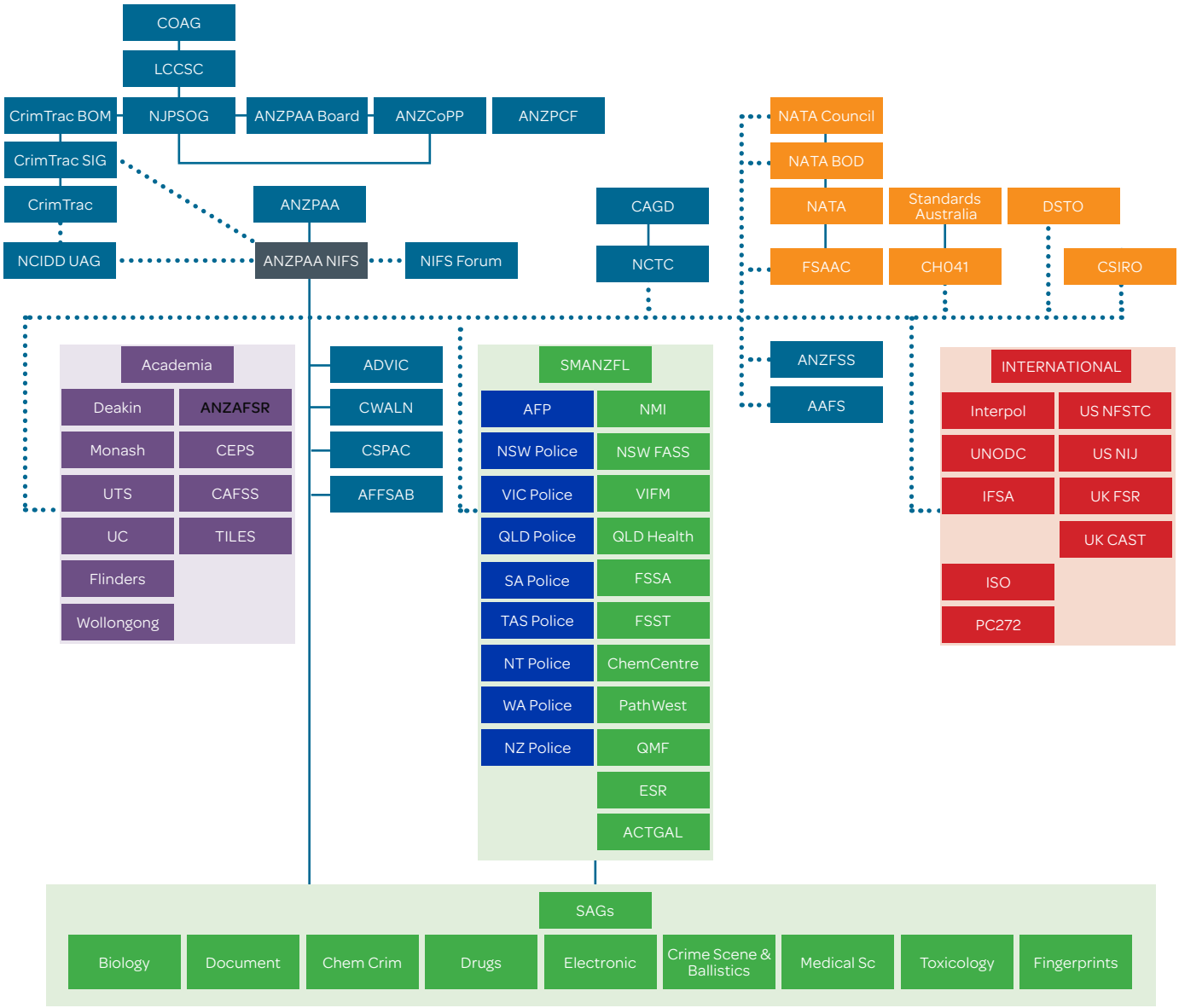
Of the various options discussed, Option *(c) Leave NIFS within ANZPAA but with a New Governance Structure and Funding Arrangements* is, I consider, to be preferred. It represents what I regard as the best meld of principle and practicality.

Obviously if it were to be explored further, the precise arrangements as to governance, funding and contributors and affiliates would need to be considered.

If endeavours were made to have NIFS housed within some State body, a similar set of matters would need to be addressed. These could not reasonably be dealt with within the ambit of this Review.

In the short term, attention is required to prevent the continued deterioration of the funding position. Resolution of the position for the future will almost certainly necessitate inter-governmental involvement.

APPENDIX 1: FORENSIC SCIENCE LANDSCAPE IN AUSTRALIA AND NEW ZEALAND

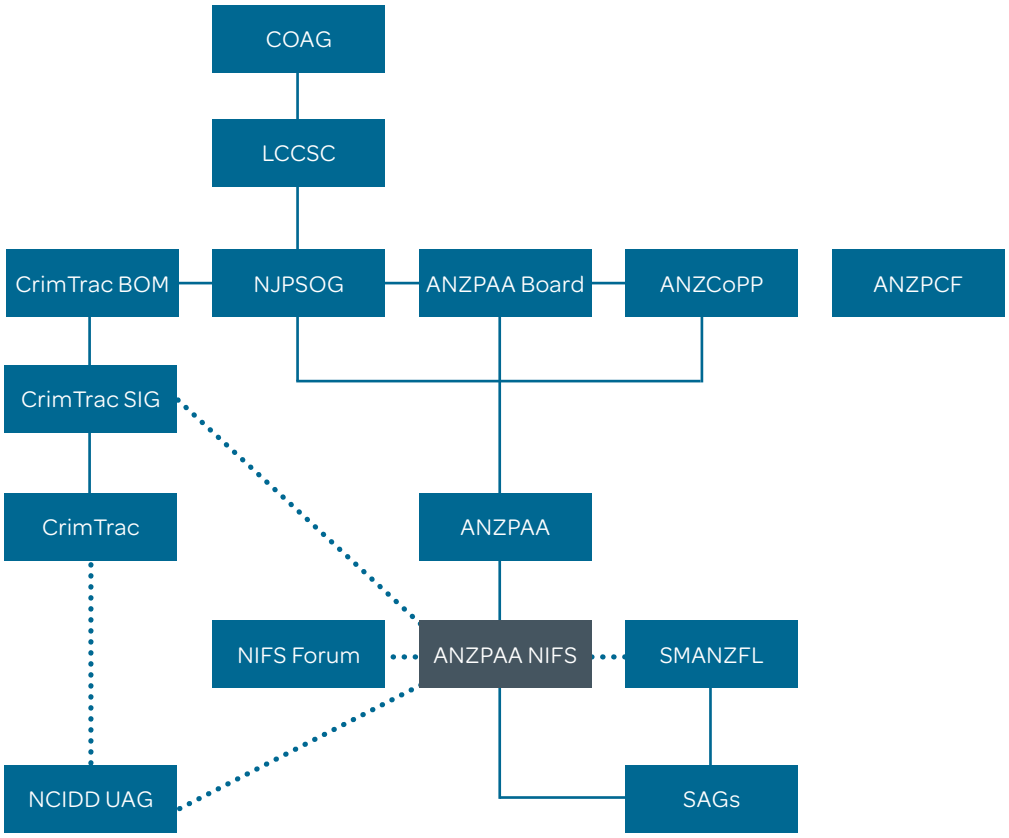


KEY

Goverance

Advice/Collaboration

APPENDIX 2: THE CURRENT NIFS GOVERNANCE PROCESS

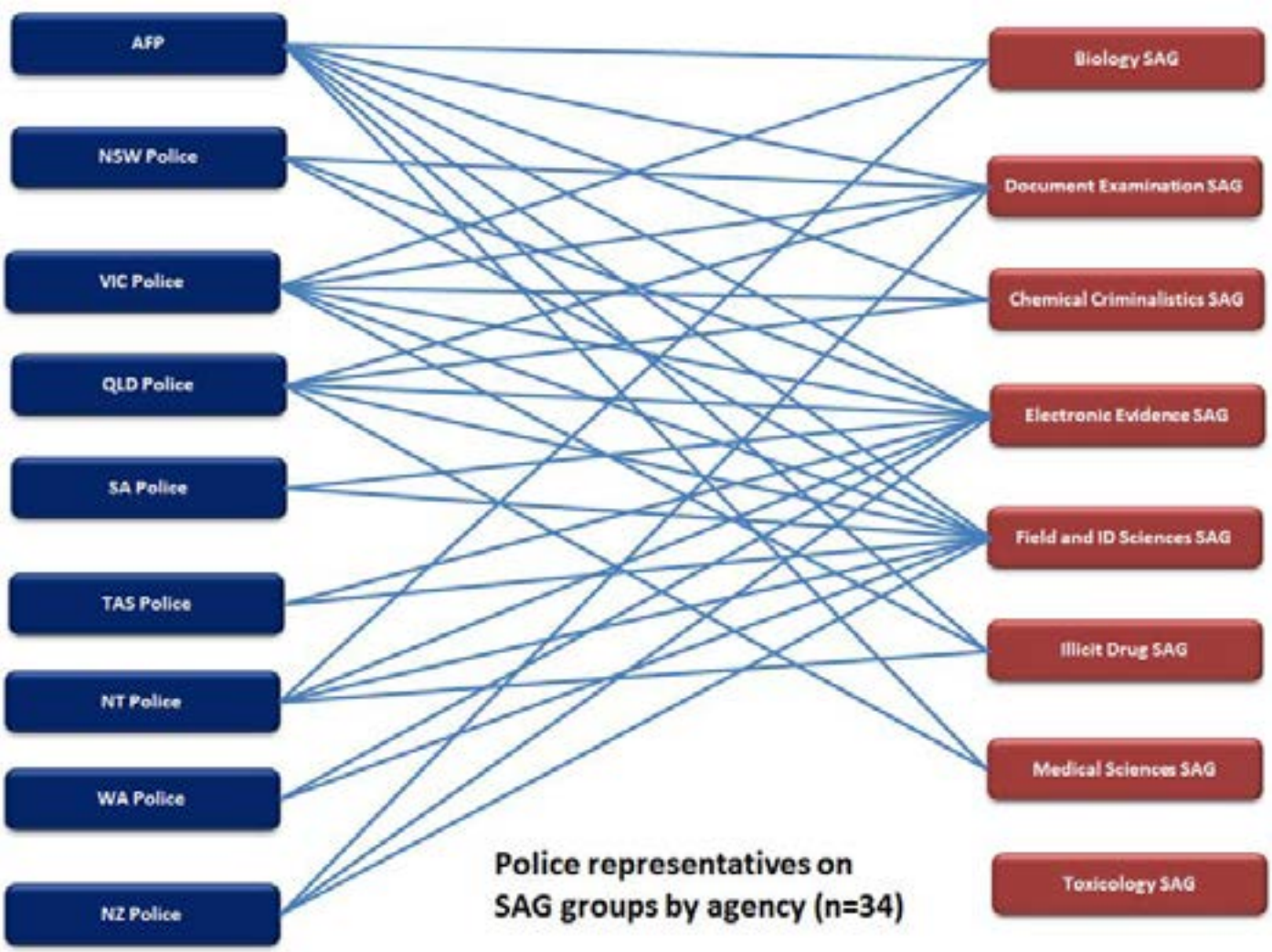


KEY

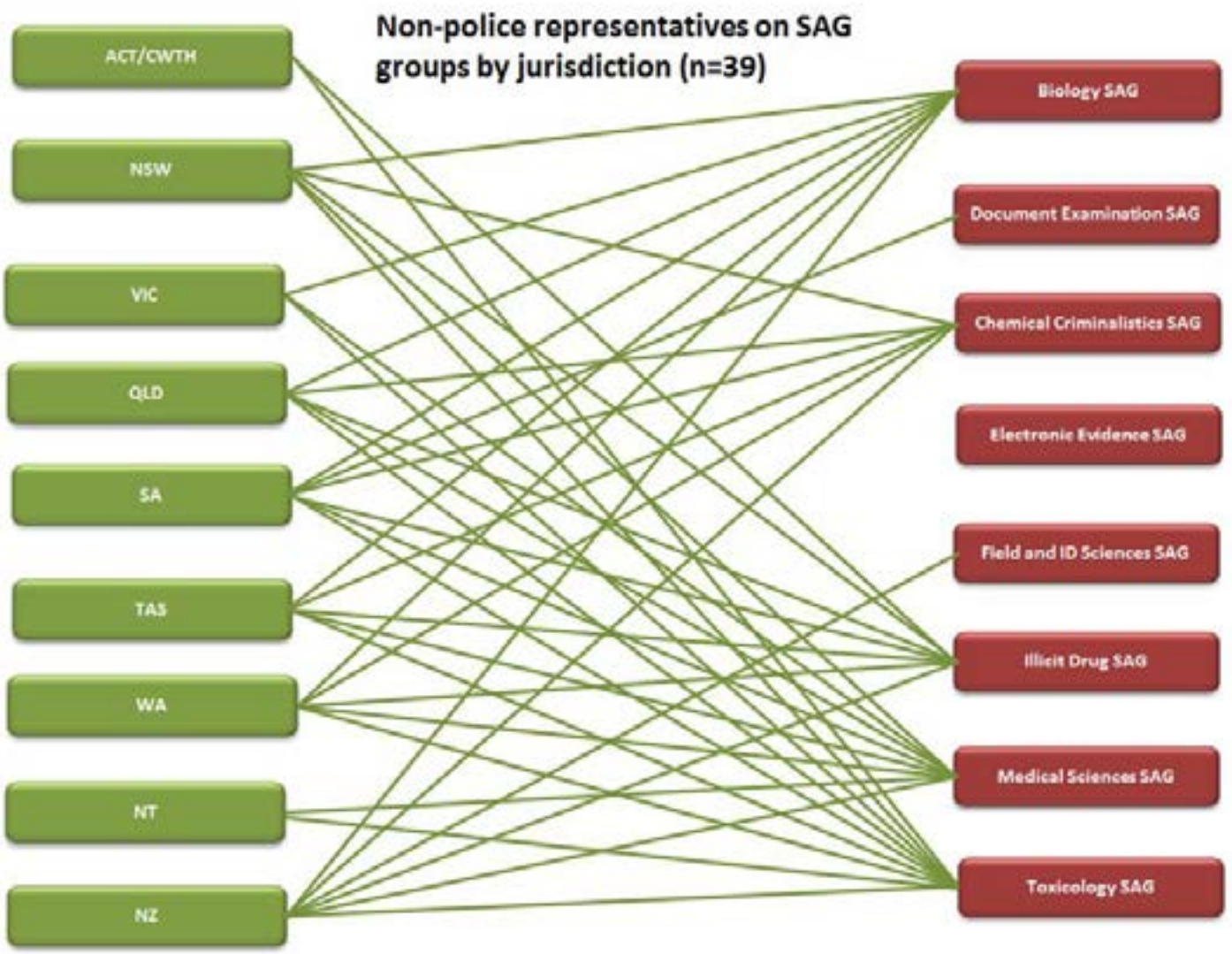
Goverance/Tasking

Advice/Collaboration

APPENDIX 3: POLICE AND NON-POLICE AGENCIES ON THE SMANZFL SAGS



APPENDIX 4: ILLUSTRATION OF THE APPROVAL PROCESS FOR THE INTRODUCTION OF THE EXPANDED DNA MARKER SET IN AUSTRALIA



APPENDIX 5:THE LOCATION OF THE FORENSIC SCIENCE DISCIPLINES IN JURISDICTIONS

Key

Services Provided

Partial Services Provided

No Services Provided

	Government							Other
Discipline	**Police**	**Health**	**Justice**	**AG**	**DPEM**	**Science**	**Industry**	**Academia**
Anthropology	■	■	■	■				■
Ballistics	■							
Biology/DNA	■	■	■	■	■			
Chemical Criminalistics	■	■		■	■	■		
Clandestine Laboratories	■	■		■	■	■		
Crime Scene Examination	■							
Document Examination	■			■				
Electronic Evidence	■							
Entomology			■					■
Fingerprints	■							
Illicit Drug Analysis	■	■		■	■	■	■	
Mortuary Technicians		■	■	■				
Odontology		■	■					■
Toxicology	■	■	■	■	■	■		

Overview of Government Department Location of Government Provider Laboratories by Jurisidiction

	Government							Other
Discipline	**Police**	**Health**	**Justice**	**AG**	**DPEM**	**Science**	**Industry**	**Academia**
ACT/Commonwealth	■	■					■	
New South Wales	■	■						■
Northern Territory	■	■						
Queensland	■	■						■
South Australia	■			■				■
Tasmania	■				■			■
Victoria	■		■					
Western Australia	■	■				■		■

APPENDIX 6: THE KEY FINDINGS AND STRUCTURE PROPOSED BY THE COMMONWEALTH ATTORNEY-GENERAL'S COMMITTEE OF ENQUIRY IN 1973

The number of scientists in Australia involved in any one aspect of forensic science is relatively small and the constant demands of case work prevent them from carrying out anything but the minimum of research. As a result, the introduction of many new methods is delayed because of a lack of opportunity to evaluate them.

Since the basic needs of most government forensic service laboratories are similar, the Committee believes that their need for applied research and information would best be met by the Australian Government establishing a national forensic science research institute. In other countries, national forensic science research organisations have been established and their operations have demonstrated that, in Australia, such an institute could provide a useful and efficient service.

Findings

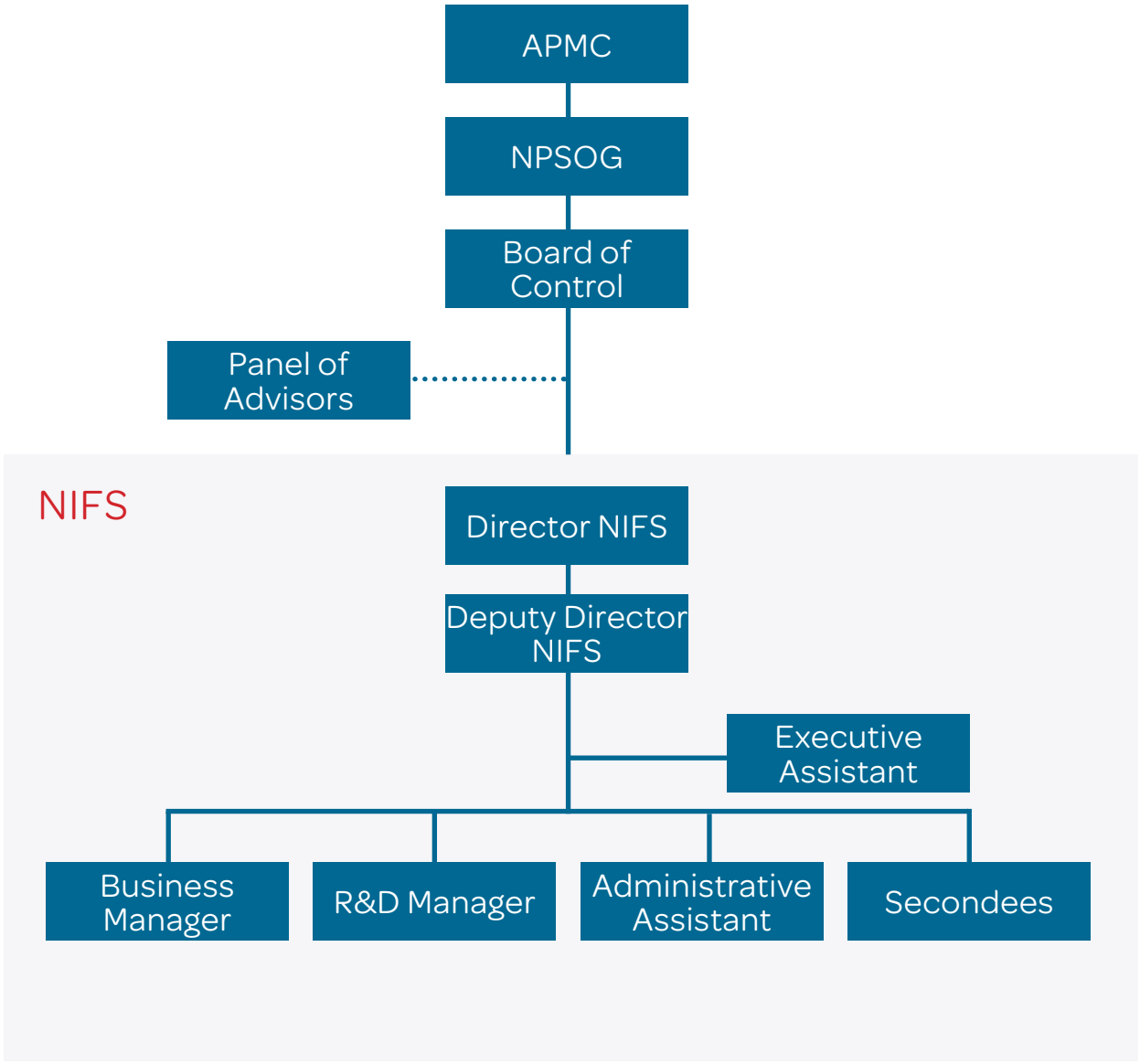
1. There is no organisation in Australia whose prime function is research into methods used for the scientific examination of exhibits for legal purposes.
2. The amount of research carried out by the laboratories which provide a regular service to legal authorities is inadequate because of their heavy case loads. This lack of research is particularly serious in view of the rapid rate of progress in the forensic sciences.
3. There is a great deal of fragmentation in the forensic sciences in Australia – not only between the States but also within each State. The various experts are spread between a large number of organisations and liaison between them is uneven and often inadequate.
4. The degree of experience of scientists in court work varies according to the amount of forensic case work carried out in the laboratories to which they are attached.
5. There is a great deal of variation between the tests used by comparable laboratories in the different States, their methods of reporting results and the conclusions that are drawn from these tests.
6. The scientific tests used for legal purposes need to be critically evaluated so that their acceptability for court purposes may be established.
7. Considerable statistical data needs to be collected regarding scientific tests used for legal purposes to establish the validity of conclusions which may be based on them.
8. Service laboratories find it difficult to keep up to date with the pertinent scientific literature. Effort is duplicated when each of them abstracts the same information for its records. In addition, the individual indexes may be incomplete because of limitations of literature search.
9. There is no graduate or post-graduate qualification in forensic science available in Australian Universities. The training of forensic scientists within the service laboratories is largely unplanned.
10. The present training of forensic scientists fails to take into adequate account the presentation of scientific evidence for court purposes.
11. The Committee noted that forensic pathology, while sharing the problems of the other forensic sciences, had special disabilities deriving from its relation to the coronial system.
12. The scientific facilities and the number of forensic scientists available to assist defence counsel are very limited.
13. Liaison between Australian and overseas forensic laboratories is both limited and spasmodic. This is mainly a consequence of cost of travelling and of the limited opportunities for Australian forensic scientists to study overseas.
14. Australian forensic authorities are generally not involved in a systematic exchange of information on an international basis. Overseas sources from whom information may be obtained, such as the Central research establishment in England, are not being adequately utilised.

Recommendations

1. A national forensic institute should be created by the Australian Government.
2. The institute should be located in the Australian Capital Territory.
3. The Institute should be called the "Australian Forensic Science Research Institute".
4. The Institute should be a statutory authority responsible to the Attorney-General of Australia.
5. The prime function of the institute should be to carry out research in the forensic sciences, The emphasis should be on the natural science, technology, and non-sociological aspects of forensic medicine.

6. The research services of the Institute should be made freely available to the various States and the Australian Government forensic laboratories. In limited and special circumstances, they may be made available to other parties.
7. The Institute should have the power to enter into research contracts for specific projects.
8. The Institute should assess the validity of scientific tests and instruments used for legal purposes and take a lead in organising the standardisation of test results between service laboratories.
9. The Institute should maintain a register of the various forensic research projects being carried out in Australia with the aim of co-ordinating such projects.
10. The Institute should establish reference collections of data, substances and objects of forensic significance.
11. The Institute should build up collections of data derived from scientific tests as a means of assessing the statistical value of this data for legal purposes.
12. The Institute should establish an Information Division to provide a service to all approved Australian forensic laboratories and to police technicians.
13. Computer facilities should be provided for the Information Division of the Institute.
14. At least one tertiary institution should be encouraged to provide a broad vocational post-graduate training programme leading to the award of a degree or diploma in forensic science. Provision should also be sought for post-graduate degrees on specialised topics.
15. The Institute should provide facilities for formal post-graduate training in the forensic sciences as part of the training programme of a degree or diploma awarding body.
16. The Institute should provide specialised training for its own staff and scientists in other forensic science laboratories. Such training should also be made available to approved scientists in Australia and overseas.
17. The Institute should act as an Australian centre for co-ordinating international matters relating to forensic science and should establish a working liaison with various overseas organisations.
18. The Institute should establish a liaison with the various organisations, societies, and other bodies involved with forensic matters in Australia.
19. The structure of the Institute should include provision for a Board of Management and for a Research Advisory Board.
20. The services of the Institute should be available without charge except under special circumstances determine by the Board of Management.
21. The Institute should have to power to arrange for study grants to enable Australian forensic scientists to study overseas and to provide assistance to forensic scientists participating in forensic science conferences.
22. The financial resources of the Institute should be provided by the Australian Government. The Committee estimates that the cost during the first few years would be of the order of $400,000 per annum and that the cost of building and equipping the Institute would be of the order of $2,500,000.

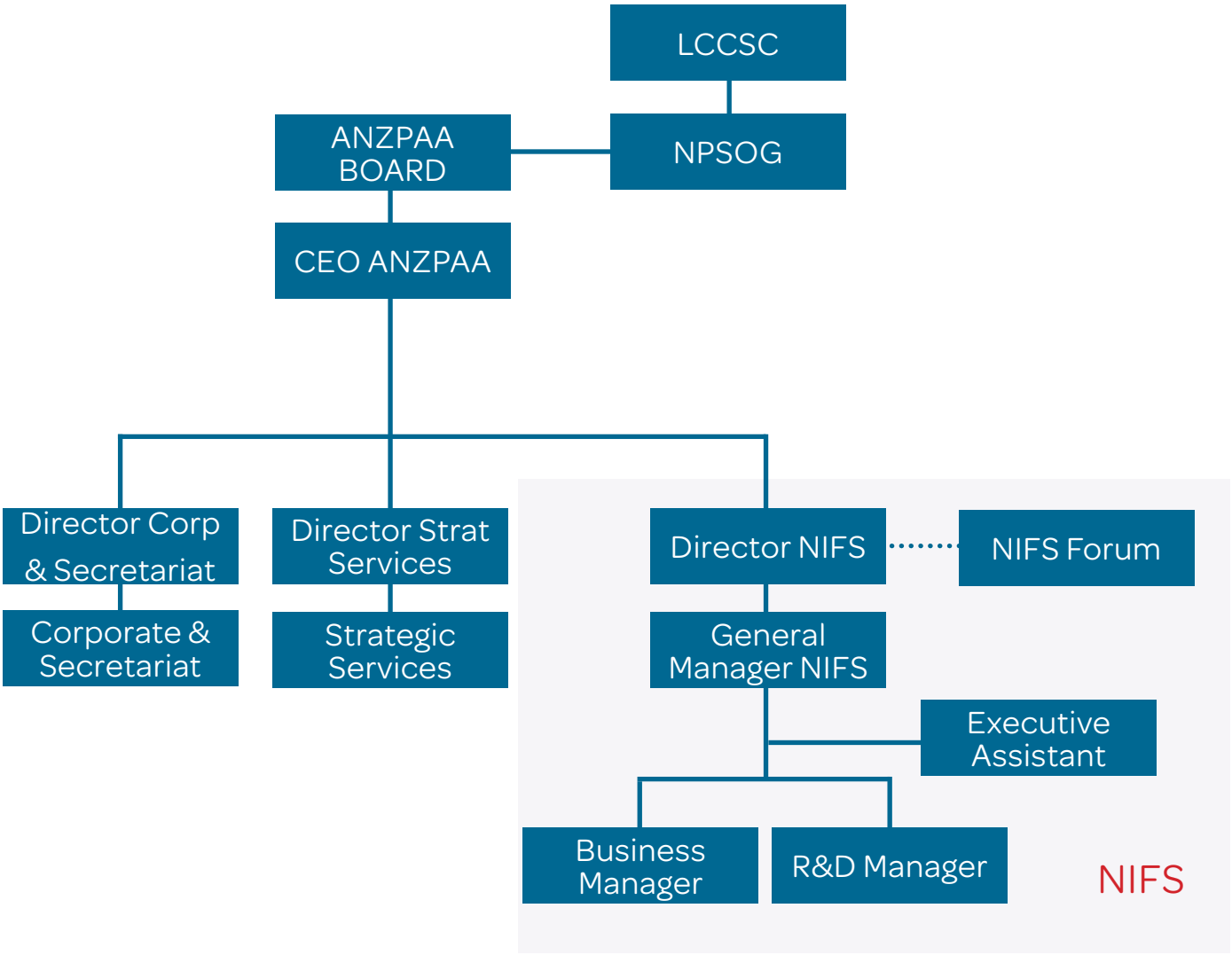
APPENDIX 7: NIFS GOVERNANCE STRUCTURE PRIOR TO INCORPORATION WITHIN ANZPAA



APPENDIX 8: CURRENT FUNDING CONTRIBUTIONS BY POLICE JURISDICTIONS

Jurisdiction	Financial Year 2013-2014	Financial Year 2014-2015
South Australia	$54,139	$54,139
Commonwealth AGD	$161,076	Nil
Australian Federal Police	$161,076	$161,076
New South Wales	$203,399	$203,399
Northern Territory	$14,650	$14,650
Queensland	$135,114	$135,114
Tasmania	$16,830	$16,830
Western Australia	$68,706	$68,706
ACT	$7,309	$7,309
Victoria	$144,151	$144,151
Total	**$966,450**	**$805,374**

APPENDIX 9: NIFS' CURRENT STAFFING AND STRUCTURE FOLLOWING INCORPORATION WITHIN ANZPAA



APPENDIX 10: CURRENT NIFS FORUM MEMBERSHIP

Position	Currently Held By
Chair – Independent position	Prof James Robertson, University of Canberra
ANZPAA NIFS Directorate	Mr Alastair Ross, Director ANZPAA NIFS
Commonwealth Representative	AC Julian Slater, Australian Federal Police
Police Officer in charge of a large jurisdiction	Prof Tony Raymond, NSW Police
Police in charge of a small jurisdiction	Vacant (previously Mr Andy Telfer NT Police, now retired)
Forensic Scientist in charge of a large jurisdiction	Mr Karl Kent, Victoria Police (also SMANZFL Chair)
Scientist in charge of a small jurisdiction	Mr Colin Priddis, ChemCentre, WA
New Zealand Forensic Science Representative	Dr Keith Bedford, ESR NZ
SMANZFL Representative	Mr Karl Kent, Victoria Police
Forensic Medicine Representative	Vacant (previously Assoc Prof David Wells, now retired)
National Research Organisation Representative	Dr John Percival, DSTO
Australia New Zealand Association of Forensic Science Educators and Researchers Representative	Vacant (previously Prof Hilton Kobus, Flinders University)

CONTACT

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