



Department of  
**Justice**

An Roinn Dlí agus Cirt  
Máinnystrie O tha Laa

# Northern Ireland Forensic Services Strategy 2021-26 Year 1 Progress Report 2021-22



# Contents

Introduction	3
Strategic Priorities	
➤ Collaborative and Streamlined Service Provision	4
➤ High Quality and Objective Forensic Services	7
➤ Modern, Innovative and Agile	10
➤ People Focused	16
Conclusion	20
Appendixes	22
Glossary	27

## Introduction

The Forensic Services Strategy 2021-26, developed in collaboration with all of the forensic partners, was approved by the Minister of Justice and published in March 2021.

The strategy, which will be implemented over a five year period, identified four strategic priorities as outlined in the illustration below to support and enhance the provision of forensic services across the principal suppliers of forensic services in Northern Ireland (NI); the **Police Service of Northern Ireland (PSNI) through the Scientific Support Branch (SSB) and the Cyber Crime Centre (CCC)** and a Department of Justice Agency, **Forensic Science Northern Ireland (FSNI)**.



During the course of the first year of this strategy, and despite the on-going impact of the COVID-19 pandemic and the associated restrictions in place, a significant amount of engagement has occurred between the organisations involved to discuss their individual requirements, areas for collaboration and also to identify any work that was already underway which would support the delivery of the strategy as a whole.

To ensure the successful implementation of any strategy, it is essential that appropriate communication is in place. To this effect a Communications Strategy was developed. This will ensure that communications are managed effectively keeping all staff within each of the organisations up to date with any developments that may impact on their work areas. The poster attached at **Appendix 1** was created for display purposes within each of the organisations to help raise awareness of the strategic priorities and to encourage staff to engage in the process.

In the interests of brevity, this report does not capture all of the work undertaken in year 1, but instead highlights some of the key initiatives progressed to represent the scale of work underway and the extent of progress and collaboration.

## Strategic Priorities



### Submissions Gateway

Building on the work of the initial Submissions Gateway Project, a second Phase has been launched to develop this area further. A Terms of Reference for the work was produced in March 2022 and the objectives have been agreed. This is a collaborative project across PSNI, FSNI and PPS which will consult with the State Pathologists Department, Coroner's Service and representatives of the Victims of Crime.



**Phase 1** of the project saw significant improvements to the processes of making a forensic submission request. In addition, Police Officers no longer

complete submission forms as this task is now completed, in part, by automation with support from the Forensic Gateway Case Managers. This has resulted in the release in excess of **2,000** hours of Police Officer's time and a further **81%** reduction in the time it takes from the collection of evidence at the scene of the crime to the delivery of exhibits to the forensic laboratory. This significant time saving contributes to the Departmental vision of 'faster justice'.

Moving forward in **Phase 2**, this project will look at:-



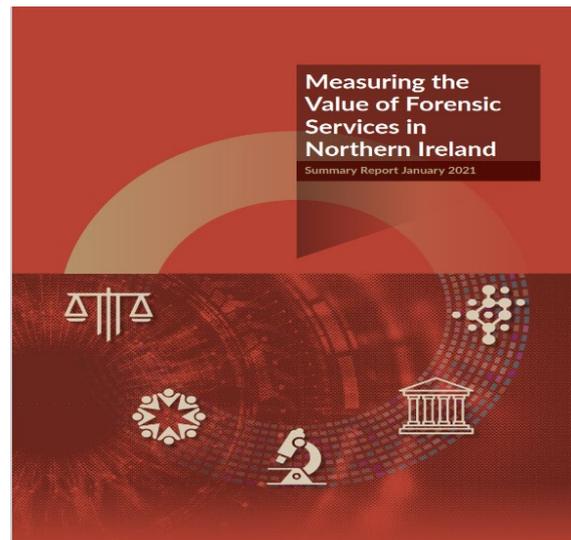
Current performance measures are based on the types of evidence that can be derived from an exhibit. The Forensic Services Strategy committed to measuring performance by crime type and a project has commenced that will result in changes to systems that will enable the collection and analysis of data in this way. This project will continue in 2022 leading to performance being measured in a more recognisable way and will support Committal Reform.

## Demand for Forensic Services

Service delivery planning benefits from forecasts produced and agreed by PSNI and FSNI. Analysis and Planning commences in September each year to identify trends and demands for forensic support for the following financial year. Analysis is based on a minimum of 5 years historical data and future trend predictions. Variations can be as a result of changing crime trends, legislative changes or new techniques.



A detailed demand document for 1 year with trends anticipated for the following 2 years are supplied to FSNI for discussion and consideration in November each year. FSNI and PSNI use this to conduct joint planning in delivering the best solution to meet the anticipated forensic need. This results in an annual MOU detailing all aspects of expected business and expected performance measures. This is a collaborative piece of work designed to provide the highest level of forensic support to the criminal justice system in the pursuance of 'faster fairer justice'.



## Measuring the Value of Forensic Services

This year saw the completion of the Value Project undertaken in conjunction with the Ulster University. A paper from His Honour Tom Burgess is attached at **Appendix 2** detailing its objectives and outcomes. The majority of the findings are now contained within the scope of the Forensic Services Strategy.

While this phase of the Value Project has been completed, appendix 2 highlights further potential opportunities to harness the value of forensic science and beyond, in terms of public spending.

## Incorporating Value

A further Scientific Support Branch (SSB) piece of work on Value has been undertaken in conjunction with the Home Office. This work strives to mirror the Home Office Impact of Forensics Project with the objective of introducing a reliable method of assessing the efficiency of any forensic

discipline which can be applicable to the various crime types. Currently, a section of data is being analysed manually and we plan to develop a method of automating the process in the coming months.

The study will measure the forensic value of material submitted to FSNI by Investigators through the 'impact' of forensic science on the investigation and prosecution of crime within Northern Ireland. With a reliable dataset in place, this analysis will allow data driven decisions on the impact and value of services supplied to

support investment in the most impactful areas, and planning for future forensic services.

### **Service Delivery Model**

As agreed in the Forensic Services Strategy we committed to looking at options around the Service Delivery Model. Within that commitment a number of discussions and meetings have taken place in year one including a workshop, which included a large cross section of the forensic partners. During the incoming year it is planned to explore this area further.

### **In Year one we have:**

- Established collaborative decision making arrangements between PPS, FSNI and PSNI to ensure efficiency in the submission process.
- Improved automation of submission processes across all forensic partners.
- Developed a mechanism to report performance data based on Crime Type.
- Developed long-term demand forecasts reflecting crime trends, legislative and policy developments.
- Continued engagement with the Home Office Impact of Forensics Project and transfer of learning to NI.
- Continued using value information to inform decisions and maximise the benefit of forensic services to the Justice System.



## UKAS Accreditation

Forensic Services in SSB and FSNI completed separate inspections from the United Kingdom Accreditation Service (UKAS) within 2021 and both areas successfully retained their accreditation to the ISO 17025:2017 standard.

This is a complex and challenging process involving UKAS assessment teams from across the UK testing the systems, processes and procedures in place. These quality standards are crucial and contribute heavily to the credibility of evidence gathering and presentation to the Courts and delivery of the Criminal Justice System.

Both SSB and FSNI have active programs of work which are extending the number of accredited processes. These are in the disciplines of Drugs, Fingerprints and Explosives. In addition to this and due to the continuing difficulties in the structural integrity with part of the infrastructure, some specific test procedures had to be reaccredited due to the relocation of equipment.

On 1<sup>st</sup> June 2021, UKAS published a new LAB51 requirement relevant to all accredited laboratories within the field of analysis of toxicology samples. FSNI successfully achieved LAB51 compliance following UKAS assessment.

## A first for the PSNI Cyber Crime Centre

This year and for the first time, the PSNI Cyber Crime Centre (CCC) have applied to be accredited to the ISO Standard 17025:2017. UKAS will be invited to conduct the assessment when CCC are content with their compliance procedures.

Their endeavour is being supported by SSB in providing quality management resources and support. FSNI is also assisting by providing insight to CCC staff through attendance at the annual UKAS surveillance visit.

## ISO 17020:2012 Accreditation

There is a commitment through the Forensic Services Strategy to introduce ISO 17020:2012 in relation to Crime Scene Investigation and scene attending roles. Good progress has been made with SSB developing and implementing standard operating



## Toxicology



Forensic toxicology is the study of adverse effects caused by chemicals and uses disciplines such as analytical chemistry, pharmacology and clinical chemistry to aid medical or legal investigation of death, poisoning, drug and alcohol use.

Almost 83% of drug related deaths are due to misuse. The work carried out is crucial in identifying the types of drugs used in society and helps to raise public awareness and develop targeted education campaigns.

Following a recent upsurge in cases of members of the public presenting as having been spiked, FSNI responded by developing a fast track product. Taking a further step, FSNI test for alcohol as well as over 100 types of drug. This

increases scientific credibility of messages related to spiking and helps to inform the wider public of current risks.

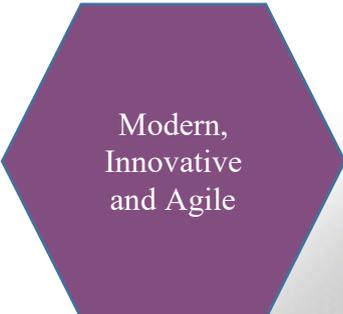
SSB and FSNI completed a review of Toxicology performance indicators as agreed in the 2021-22 MOU. The resulting report highlighted FSNI services as up to **94%** lower cost compared with brokering and an improvement in timeliness of **84%** over the last 4 years. In addition there has been a **121%** increase in FSNI Toxicology capacity for the most complex cases over the last 2 years.

### Engagement with Forensic Providers

FSNI continues to engage with public and private sector forensic providers both nationally and internationally through the Association of Forensic Science Providers (UK and Ireland) and the European Network of Forensic Science Institutions. This enables vital sharing and learning across a wide range of issues with a number of working groups in place who have continued to undertake various studies, publish papers, review and provide feedback on documents such as Judicial Primers and for the Forensic Science Regulator.

### In Year one we have:

- Maintained quality standards and extended the scope of ISO17025:2017 accreditation across forensic services.
- Developed ISO 17020:2012 accreditation plans for crime scene attending roles.
- Adhered to the Forensic Science Regulator's quality recommendations.
- Maximised opportunities for closer collaboration and shared learning across forensic service providers.



Modern,  
Innovative  
and Agile

### The 'Box'

One project during the 2021 year entitled the 'Box', promoted digital exchange between FSNI and SSB. The 'Box' is a secure digital platform for sharing information. It is cloud based and is an innovative way of providing information more quickly.

A pilot scheme focussed on digital photography from Road Traffic Accidents and involved the transfer of information from the scene back to the office through the 'Box'. The successful pilot has proven to be more cost effective and efficient whilst delivering the same high levels of quality. Plans to extend the use of the 'Box' to other disciplines are now in progress.

The 'Box' initiative is the outworking of SSB moving to the Digital Evidence Management System (DEMS) where all Crime Scene Imagery is uploaded and available to view online by officers within a few hours of the incident occurring. Previously the officer would have requested albums which could have taken a number of weeks to become available.

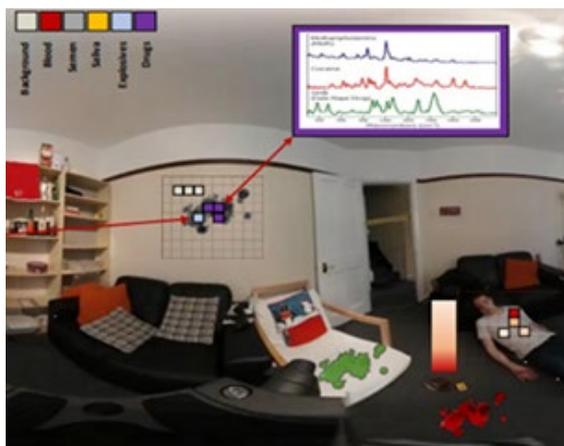
### DNA Technologies

Following on from the successful Single Lifetime Evidential DNA Sample which eliminates the need for separate Criminal Justice and Casework Samples and has resulted in lower levels of DNA samples being submitted to FSNI, the Strategy also committed to the introduction of emerging DNA technologies to enhance the effectiveness and discriminating power of DNA based technology and processes.

One such development in this field is Enhanced DNA17. This project will provide further sensitivity increases and present the ability to deal with poor quality or challenging sample types which will strengthen the efficacy of DNA testing. The business case and specifications have been completed and CPD have been engaged to prepare the tender process. This will bring a new level of testing which will produce a DNA profile in cases where previously it wasn't possible.

One of the complications in DNA testing, particularly in sexual offences, is that the DNA sample can be a complex mixture i.e. contains DNA material from more than one individual. A project to tackle this is Y-STR which tests only for the DNA Y Chromosome of males. This is an ongoing project and the product is planned to be available during the coming year. It is a new technique for FSNI and requires a fastidious approach to ensure it can be robustly used as evidence in our Courts and build on the FSNI supplier status to upload profiles to a new National Y-STR Database.

## The RISEN Project



*Image of RISEN scene*

There are a number of projects ongoing that clearly demonstrate the power of collaboration and one example is the RISEN project. RISEN is a £7million EU funded project of which the PSNI are a member. The aim of the project is to develop a set of real-time, contactless sensors capable of creating an interactive 3D model of the crime scene with the position and labelling of evidential traces as pictured above.

This targeted approach has the potential to reduce the level of evidence recovered at the scene for laboratory examination creating substantial savings whilst also providing a greater chance of identifying evidence at the scene. First prototypes are expected to be in early operational trials within the next 12 months.

## JIDG Projects

The Joint Innovation and Delivery Group (JIDG) is an established mechanism that enables FSNI, PSNI and PPS to identify and progress service improvement and innovation initiatives. A separate, but loosely linked project through JIDG, is based on research into and development of **High Definition Scanning** technology for the 3D survey of Scenes of Serious Crime and Serious Road Traffic Collision – see images below.

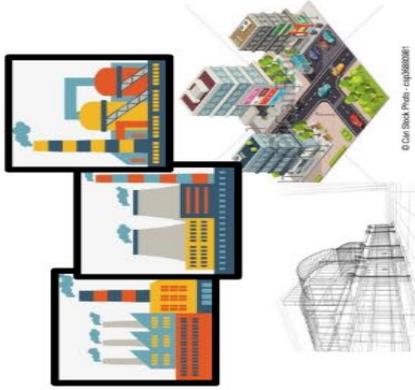
The project is being driven by the PSNI Mapping Section and allows accurate 3D capture at the scene providing digital output in two ways. Firstly, to provide digital survey data to FSNI to assist Crash Investigators for input into bespoke systems; and secondly, the provision of a useable 3D Virtual Reality product to the Investigator and to the courts to allow those who have not had the benefit of attending the live scene with an opportunity to walk through a 3D environment and view the specifics of the scene. The tender process was completed in 2021 and both partners are now working on delivering training to include use of the software package.



*Image of 3D Scanner machine*

# Outdoors

Building complex



Large building / Multiple rooms



Scene / Room

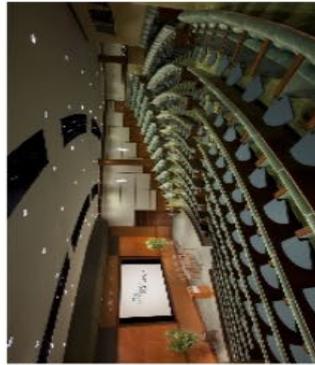


Scene detail



# Large

Large room



Room



Small room



# Small

# Indoors



## JIDG Projects (cont'd)

Another JIDG led project aims to automate our manual systems for temperature control. This is a challenging project for a number of technical reasons but will deliver a regulatory control of temperature across a number of different areas and systems. The project is forward thinking with innovative solutions being discussed with a number of suppliers to ensure that the finished scheme takes into account different partners needs and also the advances in wireless technology.

## FSNI Improvements

The FSNI Composite Project Register demonstrates 65 improvements in 2021-2022. These range from new processes to the moving of equipment and re-accreditation as discussed earlier. As an example of continuous improvement processes, FSNI produced 26 improvements to business, 9 new processes being further considered and 7 current processes under review.

FSNI have been engaged in a multi-year work programme supported by the Small Business Research Institute (SBRI) to develop the use of hyperspectral imaging (HSI) for the screening and identification of body fluids. This has proven to be a very successful collaboration, with initial results looking very promising. The use of this technology in the evidence recovery process has the potential to

dramatically reduce the time taken to screen clothing for blood, semen and saliva. FSNI are scheduled to take receipt of a prototype instrument early in 2022-23 for laboratory based testing and evaluation.

FSNI is also engaged with the Home Office who are seeking to establish a collaborative dedicated fund for forensic science R&D. They are attempting to fill knowledge gaps that exist across foundational research questions and also to progress technological advances which are currently thwarted by a lack of investment across the UK. The aim is to bring together key stakeholders and provide a focal point for mobilising efforts by working collaboratively, bringing academics together to explore problems and uncover innovative solutions to foundational problems and to aid projects with a high 'Technology Readiness Level' to develop and move into operational capacity.

## SSB Improvements

In SSB a number of continuous improvements taken forward have resulted in the ability to understand how the forensic journey is progressing for each case in 'real' time.

Following an incident occurring, Police Officers now have an automated 7 day warning flag to remind them of the need to make a forensic submission. We can now track the length of time it takes from the incident occurring through to delivery of the forensic exhibit to FSNI via a 'live' time report on the PSNI PULSE performance reporting dashboard.

This has focussed attention on reducing delay and District Commanders can now review the performance of their area at the touch of a button. Embedding this into core systems has ensured the performance advances will continue into the future.

### CCC Improvements



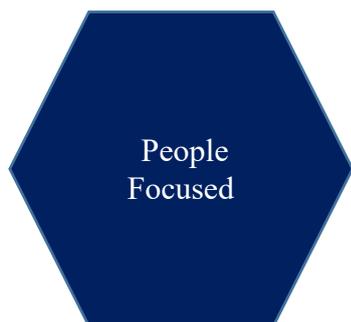
CCC have created and implemented a Digital Triage team which contributes to the management of high volume investigative needs and to identify those exhibits which present with the most threat, harm and risk.

This aligns with policing priorities identified by the Chief Constable by allocating appropriate resources to areas of identified need and providing victims and suspects with the confidence that their case is being investigated expeditiously.

CCC intend to deliver a further digital forensic van in 2022. This will supplement and enhance existing capability to recover digital forensic evidence in the field. It will also allow response teams on the ground to provide direct connection to wired and wireless networks, augment the capability to respond to such things as cyber-attacks and provide a means to efficiently download relevant material held on a host server under investigation. This as a concept has been adopted by GB based ROCU's who have purchased one van from the PSNI and use the blueprint to deliver their own capability.

### **In Year one we have:**

- Enhanced digital exchange of forensic information across CJ partners.
- Delivered live transfer of information from crime scene to laboratory.
- Proposed new technology to capture crime scenes, recover evidence with more science delivered at scene.
- Progressed new and emerging DNA technologies.
- Developed local projects through the Joint Innovation Delivery Group which will benefit the NI Criminal Justice System.
- Reviewed and implemented processes to ensure practices are streamlined, efficient and effective, and prioritised appropriately.
- Collaboration with the Small Business Research institute to further develop forensic processes.
- Engaged with the Home Office to share best practice and learning for the benefit of the NI Criminal Justice System.
- Engaged with key stakeholders to further enhance reporting of forensic evidence to the Courts.



While it has been a difficult year due to the ongoing COVID-19 pandemic and associated restrictions, training and survey packages continued to be developed and delivered where possible.

### FSNI Stakeholder Survey



A Key Stakeholder survey was conducted across the CJS. This was carried out by the Analytical Services Group on behalf of FSNI. The wider partners were asked to contribute their thoughts on how they interacted with FSNI, what they thought of service delivery and what they felt would improve the service in terms of training and awareness. A good response level was received from the Stakeholders surveyed and all constructive comments have now been analysed.

A training package is being developed, tailored to stakeholder need, and will be delivered in 2022-23.



### FSNI Training

FSNI scientific training included attendance/participation in approximately 40 events covering all disciplines. This investment is critical to ensure our staff maintain their competence and can continue to present Expert Witness evidence to the Courts. Given the restrictions still in place due to the pandemic, many of the events were delivered via online platforms thus facilitating events and contacts that may otherwise have been lost.

The Centre for Applied Learning (CAL) supports delivery of non-scientific training and development of NICS staff. FSNI staff have been able to avail of training covering Health & Safety compliance, information security, line management skills and a wide range of events helping with general health and wellbeing particularly in relation to pandemic.

## SSB Training

A number of training events have taken place through SSB for example; the bi-monthly senior officer training for Detective Inspector and Detective Sergeant Grades. SSB and FSNI staff have contributed to this training by explaining their skills and discussing previous case studies to match the science with the operational realities.

Feedback received suggests that the expansion of these sessions would be welcome and would assist understanding both for the police and the technicians involved. This will be explored in the coming year.

## CCC Training

CCC have delivered digital forensic awareness training to Detective Inspectors, Detective Sergeants and Detective Constables across the organisation. This enhance their knowledge of CCC, how they interact with the Centre, their expectations of what can be achieved within the Centre, and how they might contribute to the efficient delivery of forensic services. Delivery of open source training has also taken place within the reporting period to enhance organisational capability to swiftly advance enquiries with an internet based element of initial actions, such as those which might be required for missing persons.

## University Placements



**QUEEN'S  
UNIVERSITY  
BELFAST**



SSB have combined a scheme for university students with developing training videos for police officers on the ground. The students are on a professional placement year during their degree level courses. A significant number of promotional, recruitment and refresher videos have now been produced and plans are in place to work with FSNI to develop something similar.

FSNI have also engaged university students across the disciplines of Electronics, IT and research of Policy and Legislation. All of the placements are yearlong and fit between the degree study commitments. One student has conducted research around the Legislative and authoritative pathways for the forensic provision in Northern Ireland. This work will contribute to the understanding of the current service delivery models across the UK and Ireland. It will also help to highlight areas that might help to improve our own systems or identify potential learning gaps that we are unaware of.

CCC have facilitated 2 QUB students from the MA in Global Security and Borders who are working on research papers bespoke to advancing understanding of Cyber Crime. These papers will address a critical review of the 'Cyber Up Campaign' (a review of existing UK Computer Misuse legislation) and its impact on Northern Ireland. They will also examine the effectiveness of PSNI's cyber education programme in primary schools.

### Recruitment

Investing in staff recruitment has been a challenge over the period of the pandemic however, there have been a number of recruitment competitions which are producing results across the partners.

SSB are recruiting 10 new CSIs, 12 new Fingerprint Trainees and 6 new Photographers within 2022. For the first time in 20 years training for these staff will be delivered in NI. The main advantages of this includes the ability to deliver training using NI specific legislation rather than translating the training from another jurisdiction. Another advantage is that it may appeal to a wider, more diverse pool of staff who would otherwise not have been able to consider a training period outside NI.

CCC ran a campaign to recruit an additional 10 officers to the Cyber Support Units. A further process to recruit officers to the Cyber Crime Centre is scheduled for 2022-23. This will address any anticipated transfers and promotions.

FSNI recruitment has continued to be a challenge given the number of vacancies across the NICS. Of the 26 new staff recruited during 2021-22, 19 have been scientific staff. The Agency recently completed recruitment competitions for new Trainee Reporting Officers and four successful candidates are in the process of completing pre-employment checks. A Scientific Officer competition has been launched with over 170 applications received.

### Mental Health and Welfare Support



SSB have a dedicated mental health and welfare working support group which is supported by PISM and peer support officers. All scenes attended are reviewed by Management and whenever necessary, intervention is given to support the staff member.

PSNI have also recruited a dedicated Psychologist who, as part of their role, will be exploring the development of various preventative actions such as; screening when initially recruited, monitoring mental health against baseline throughout their tenure within SSB and reflective practice supervision groups provided by trained peers.

CCC continue to engage with OHW to formalise and deliver holistic

psychological care for officers operating in this environment.

There are numerous welfare resources available to FSNI staff including through the Police Re-training and Rehabilitation Trust (PRRT), Welfare Support Services, Inspire and the Charity for Civil Servants. In addition to this, the NICS runs frequent health and wellbeing events and training during the year which all staff can avail of.

### **In Year one we have:**

- Engaged with key stakeholders to develop an education awareness package for front line officers and wider criminal justice partners to improve understanding and knowledge of the forensic science process.
- Developed our workforce skills and capabilities, including continued professional development.
- Established short-term placement opportunities across PSNI and FSNI.
- Commenced development of a succession planning model to ensure that forensic service delivery is maintained in future years.
- Continued to develop and deliver Mental Health & Well Being initiatives across all organisations.

## Conclusion

The first year of this Forensic Services Strategy was impacted by major events such as the pandemic and building structure failures, however, thanks to a highly committed workforce across our forensic partners, significant progress has been made.



Each of the four main pillars of the Strategy have considerable pieces of work either delivered, ongoing or planned for within the 5 year lifecycle of the Strategy.

We have worked collaboratively whilst achieving individual organisational goals using this Strategy to give us a defined direction of travel. This has ensured that the collective investments we are making in equipment and staff resources are targeted at the right areas, to maximise the opportunity of bringing the perpetrators of crime to justice. This has also assisted us to help bring closure to victims, families and friends, not only through the criminal Courts but also through the State Pathologist's Department and Coroner's Service.

In an ever changing world where types and volumes of crime constantly fluctuate we have planned forward the likely demand on services for the next 3 years, to make sure that we are ready for the changes we can foresee. Adjusted every year to ensure the most up to date response is available, this year we have proven we are capable of adapting plans when needed, as was the case with recent 'spiking' where, collaboratively, our response was quick, accurate and helped other Departments to respond with tailored advice.

This annual report highlights the large number of improvements that have been completed this year. Change brings with it opportunities which we will continue to exploring as we progress through year two.

Looking forward we can see that it will be another busy year both in normal business terms but also in planning, investing and developing our forensic response. Detailed below is some of the areas that have been Included in our plans for 2022-23.

This annual report demonstrates our collective commitment to the Strategy and our achievements for 2021-2022, while also laying out the foundation for the year ahead. It has been a challenging but successful first year and one which, collectively, we will use to build upon in 2022-2023.

## Plan for Year 2 (2022-23)

The Road Traffic Collision project - to consider the forensic service requirements around non-fatal road traffic accidents

Forensic Drugs Testing - to develop a strategic forensic drugs testing policy for NI

Gateway Work Stream - to further advance the process of forensic submissions making them more efficient and effective

FSNI - Delivery of training and awareness sessions to Stakeholders on the forensic science process

A 3D Scanner project delivered through the Joint Innovation and Delivery Group

Bringing more of our processes under the UKAS umbrella

Helping each other to attain new accreditations under ISO 17025:2017 and 17020:2012

Service Delivery Model – Year 2 will see the continued development of the review into the delivery of forensic services in Northern Ireland

SSB in conjunction with the Home Office Impact of Forensics Project – to introduce a reliable method of assessing the efficiency of forensic disciplines applicable to various crime types

# Forensic Services Strategy 2021-2026

## Services

*Outcome - We have a Collaborative and Streamlined Service Provision*

- We will develop our Delivery Model to lead Forensic Services into the future.
- We will develop a Funding Model for Forensic Services.
- We will work to develop an enhanced submissions process across Forensic Providers that includes shared decision making.
- We will further develop and understand the Value of Forensic Services to inform decision making.

## Quality

*Outcome - A High Quality and Objective Forensic Service*

- We will maintain and enhance current Quality Standards across Forensic Services.
- We will extend the scope of ISO 17025 Standard across Forensic Services or work towards achieving the Standard.
- We will begin to implement ISO 17020 accreditation to crime scene attending roles.
- We seek to maximise the opportunities to provide closer collaboration and shared learning across Forensic Providers.
- We will, as a minimum, follow guidelines issued by the Forensic Science Regulator.

## Infrastructure

*Outcome - As Service Providers we are Modern, Innovative and Agile*

- We will enhance the digital exchange of information across Criminal Justice partners.
- We will explore the 'live' transfer of information between crime scene and laboratory and the use of technology to record crime scenes.
- We will embed a continuous improvement ethos ensuring a streamlined and efficient approach to delivering effective Service.
- We commit to fostering an environment where innovation thrives.

## People

*Outcome - We enable improved understanding and opportunities*

- We will engage with Criminal Justice Partners to expand the knowledge base of service provision to maximise Forensic opportunities.
- We seek to develop workforce skills, capabilities and continued development opportunities.
- We will explore potential opportunities for career pathways.
- We seek to develop joint Mental Health and Well Being initiatives.



## Project to Measure the Value of Forensic Services

### The context

Forensic Science Northern Ireland (FSNI), an agency of the Department of Justice (DOJ), provides high quality, United Kingdom Accreditation Service (UKAS) accredited scientific analysis and reporting for the majority of forensic services. The Scientific Support Branch (SSB) of the Police Service of Northern Ireland (PSNI) also undertakes forensic services and engages private sector providers to deal with surges in demand.

The 2016 Forensic Services Strategy was prepared as an overarching strategy for the provision of forensic services by both FSNI and SSB, to address challenges arising in the context of a changing environment.

The strategy recommended, inter alia, that research be conducted to measure the value of forensic services to the criminal justice system. The research was to be conducted under the auspices of the new governance arrangements; the Forensic Services Leadership Group (FSLG) and the Forensic Services Operations Group (FSOG), sitting over both FSNI and SSB, and made up from representatives from across the criminal justice system.

The report cites as context for this research:

- **2014 Criminal Justice Inspectorate** recommendation – ‘a monitoring and feedback process ... role forensic science has played’

- **OCED Review 2016** – ‘... policy and decision-making that is grounded in evidence and based on achievement of measurable results for citizens’
- Sir Michael **Barber Review**, November 2017 - responded to the following problem: ‘The central difficulty in improving public sector productivity is measuring it.’
- The **Home Office**: ‘Implementation Plan for the joint review of forensics provision’ (April 2019)

These are referenced as authoritative sources to support the research and address perceived scepticism concerning public value.

However, in practice, the research was also motivated by a concern raised by many stakeholders, both local and international, that the ‘salami slice’ approach to annual budget reductions was likely to be counter-productive. Such an approach fails to take cognisance of unintended consequences and the belief that budget reductions in certain services could in fact ultimately increase costs across the system. It was acknowledged that there was a poor understanding of how forensic services impacted the criminal justice system, which services provided greatest value, and where perhaps greater funding provision could realise savings elsewhere in the system. If it was not fully appreciated how forensic services contributed to

successful criminal justice outcomes, then how could the full implications of the uniform application of annual cuts to the budget be understood?

The recommendation to measure the value of forensic services was intended to address this challenge, basing the work on an assessment of policies and performance measures already in place and an evaluation of real world impact through stakeholders' experience of the application of policies.

### **Target audience**

This research project was led by the Forensic Services Leadership Group, led by His Honour Tom Burgess, with specific projects led by the Forensic Services Operations Group led by Stephen Hodgkinson. Both groups included senior representatives from the Police Service Northern Ireland, Public Prosecution Service, the Department of Justice, Forensic Science Northern Ireland and the State Pathologist (FSLG only). The immediate target audience was therefore the representatives in FSLG and FSOG. However, since completion of the project, engagement has been sought more broadly across the public sector.

### **Methodology**

The report outlines an exhaustive approach to collating evidence to support the research objectives. In the final analysis however, the measurement of public value is captured in the application of the Barber Framework and the operational and legitimacy scorecards.

### **The Operational Scorecard**

The operational scorecard reviews the organisational literature for reference to the components of public value identified in Barber's four pillars, to provide an indication to what extent organisational structures and processes are primed to facilitate the delivery of public value.

The five headings across the horizontal axis (quality of service provided; independence/impartiality; community confidence; efficient and effective; and innovative) are common themes identified from the objectives of organisations within the criminal justice system. The vertical axis are the four pillars and sub-sections from Barber's Framework. The scorecard is a summary presentation of more detailed spreadsheets where each cell is populated using relevant value statements extracted from the organisational literature.

### **Legitimacy Scorecard**

The legitimacy scorecard provides a means of analysing the views of a wide range of stakeholders relevant to measuring public value.

In the legitimacy scorecard adapted for this research, the horizontal axis remains the same as for the operational scorecard. The vertical axis lists the various stakeholders within the criminal justice system. The scorecard is a summary presentation of more detailed spreadsheets where each cell is populated with the value statements extracted from the structured interviews.

The view of stakeholders is that, taken together, the Barber Framework and the scorecards provide a realistic assessment of areas for improvement in order to yield further value from the provision of forensic services. The recommendations already implemented have yielded significant and tangible efficiency savings.

### **Thematic analysis**

A series of themes have then been drawn from analysis of our research. This section complements the framework and scorecards, providing a narrative for the exposition of the value forensic services provides to the criminal justice system.

These are set out in the Report and provide a means of analysing data in order to provide an assessment of how value for the public is being produced and where, with additional data points, further evidence can be gathered to enhance the understanding of public value.

### **Reception to date and present position**

The Report and findings have been very well received to date, with many of the recommendations implemented, or in the process of being implemented. As is the nature of any primary research projects, the preferred methodology was not arrived until the final stages of the research. As a consequence, many of the benefits accruing from conducting the research have not necessarily been associated with the process of measuring public value. To address this a Benefits Schedule has been prepared to capture these evolving

values and the responses to them.

Toward the end of the work on the Project an approach was made to Sir Michael Barber, global expert on implementation of large-scale system change and strategic advisor to the Cabinet Office, to ascertain his views on the work itself and the methodology. His response was that the research had been 'excellent' and 'one of the most sophisticated applications I have seen and shows the force of public value when used in this way'. He sought consent to share the work with the Public Value Unit of the Treasury.

The Treasury and the Cabinet Office have set out how planning and performance information is central to ensuring funding bids deliver long term sustainable value for money at Spending Review. This Unit was set up to support Government in tracking performance and building capacity to ensure value of money. The Unit provides advice and support, primarily using the Barber Public Value Framework as a diagnostic tool, and has built capacity in understanding the most effective ways of using it to uncover insights that can improve performance. There have been subsequent, constructive discussions with the Unit and a further meeting with Sir Michael who has offered time to engage with Departmental heads in Northern Ireland.

It is acknowledged that stakeholders face competing demands for their time. Therefore the objective should be to progress from the manual

approach elucidated, to a much more streamlined, automated approach. This is in the process of being explored, with some optimism that it may be achievable, subject to funding. That would form a key focus for a second phase of the research.

Given that the Report has substantially informed the new Forensic Strategy 2021/2016, and that such

measurement tools will form a fundamental part of the process of Spending Reviews across all jurisdictions, it would be hoped that the proposed further developments set out in the Report and this paper would find support.

**T A Burgess**  
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## Glossary

CCC	Cyber Crime Centre
CJB	Criminal Justice Board
CJINI	Criminal Justice Inspectorate Northern Ireland
CJS	Criminal Justice System
CSI	Crime Scene Investigator
DoJ	Department of Justice
DNA	Deoxyribonucleic Acid
ENFSI	European Network of Forensic Science Institutes
FCN	Forensic Capability Network
FSLG	Forensic Services Leadership Group
FSNI	Forensic Science Northern Ireland
FSS	Forensic Services Strategy
FSOG	Forensic Services Operations Group
FSR	Forensic Science Regulator
HR	Human Resources
JIDG	Joint Innovation and Delivery Group
MOU	Memorandum of Understanding
NICJS	Northern Ireland Criminal Justice System
PFR	Proportionate Forensic Reporting
PISM	Post Incident Stress Management
PPS	Public Prosecution Service
PSNI	Police Service Northern Ireland
R&D	Research and Development
ROCU	Regional Organised Crime Unit
SLA	Service Level Agreement
SPA	Scottish Police Authority Forensic Services
SPD	State Pathology Department
SSB	Scientific Support Branch
UKAS	United Kingdom Accreditation Service
UU	Ulster University