



# Executive Summary





At the heart of the FCN is the desire to work together nationally to deliver high quality, specialist forensic science capabilities; to share knowledge; and to improve resilience, efficiency, quality and effectiveness.

### Welcome to the Forensic Capability Network (FCN)

We are delighted to be able to invite your organisation to become a founding member of the Forensic Capability Network (FCN): a new way of working that will help harness our collective forensic science efforts; transform our forensic science landscape; make our respective forensic science capabilities so much more than the sum of their individual parts; and help us all deliver the first-class policing and law enforcement services our communities deserve.

#### What is the Forensic Capability Network?

In its broadest terms, the FCN is a community of all its members' forensic science capabilities and expertise - still owned and managed locally but benefiting from a level of collective investment, focus, networking and support that has never been possible before. At its heart is the desire to work together nationally

to deliver high quality, specialist forensic science capabilities; to share knowledge; and to improve resilience, efficiency, quality and effectiveness.

We will say more about each of these elements and the associated FCN products and services in due course.

Before we do though, we want to emphasise the 'club' nature of the FCN: a club owned by us, its members, and designed to shape and develop our forensic science capabilities in the way that makes most sense to us, as those responsible for delivering policing and law enforcement outcomes to our communities.

#### The FCN consists of three main elements:



#### People

A network made up of all our forensic science professionals, who will share skills and expertise to improve standards and be able to share workload to increase resilience.



#### 🚽 Service

A core team helping to define, co-ordinate and orchestrate forensic service delivery, focus investment and engage with the martketplace to continually improve forensic capabilities across law enforcement.



#### Technology

A platform and toolset providing the technology to connect and enhance forces' existing forensic capabilities and enabling them to share work by using common processes and policies.

#### Why is the Forensic Capability Network so vital?

Put simply, our current forensic science landscape is not sustainable. Fantastic opportunities will go unrealised if we fail to harness our collective efforts, and the challenges we face are so great, they could easily overwhelm any one of us. Here are just five reasons why we believe the FCN is so vital.



#### We need a more sustainable and forward-looking commercial marketplace.

We all felt the pain when Key
Forensic Services Limited, the
country's third largest commercial
provider of forensic science
services, went into administration
in January 2018 and we are still
feeling the effects of the alleged
data manipulation at Randox
Testing Services. These types of
events damage public confidence,
as well as consume huge
amounts of our resources in crisis
management.

Reducing volumes of work and downward pressure on prices has served to destabilise the traditional forensics¹ market, where we currently rely almost exclusively on a very small number of commercial forensic service providers.

Conversely, rapidly increasing demand for digital forensics has led some of us to contract with companies that do not have the appropriate quality accreditation, security standards or business continuity plans in place.

The only way to mitigate these risks is to create a more sustainable, quality-assured and forward-looking commercial marketplace, where we can forecast and communicate our demand effectively; phase our procurement activity; place greater emphasis upon quality, 'value-add' and sustainability; and give the market the confidence it needs to invest in the capabilities and capacity we really need.



#### Lack of accreditation is an increasing risk for us all.

By October 2020 more than a hundred different forensic science techniques will need to meet robust ISO 17025 and ISO 17020 accreditation requirements, including the broad range of forensic science activities undertaken out in the field and the ever-expanding array of digital forensic capabilities. It has taken huge amounts of effort over the last 12 months just to

get 60% of fingerprint bureau capacity accredited in time for the 25th March 2019 deadline for legal compliance. Achieving accreditation for a much broader range of capabilities is going to be far harder.

Furthermore, with the Government backing a current Private Member's Bill to give the Forensic Science Regulator (FSR) statutory enforcement powers and the Director of Public Prosecutions recently ruling that any fingerprint identification evidence playing a significant part in a criminal case now needs to have been provided by an accredited fingerprint bureau, the risk to us all, both operationally and reputationally, of failing to meet our accreditation requirements is immense.



#### A more cohesive forensic science landscape will enable much stronger performance.

The fragmented nature of our current landscape, consisting of numerous different forensic science units all trying to solve similar problems in slightly different ways, just doesn't make sense, either operationally or financially. Take accreditation, for example, where we currently have most police forces and law enforcement agencies operating slightly different forensic science processes, all of which need to be validated, documented and accredited / reassessed individually.

This is costing us millions of pounds and thousands of hours of time every year that would be better reinvested elsewhere.

The operational impact is just as evident. Different processes and a lack of networking capability make it almost impossible for most of us to share forensic science workload efficiently or effectively, or capitalise on the intelligence or investigative opportunities that could be leveraged as a result. With so much crime now either

ignoring or exploiting geographical boundaries, this fragmentation is hampering both our resilience and our performance.

Furthermore, with the Government investing significant sums in new national capabilities, including the Home Office Biometrics (HOB) Programme, we are unlikely to maximise the potential benefits of these investments to forensic science if we continue to operate in an ad hoc or disjointed manner.



#### We need to keep pace with technological change and the resulting increase in demand.

The demand for forensic science capabilities is rising sharply as the digital footprint associated with crime expands. Current estimates suggest that, by 2022/23 and without a significant change in our approach, we will need to be spending between £200 million

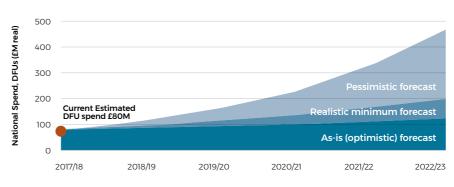
and £500 million per annum on digital forensics, just to maintain current performance. This compares to just £80 million spent on digital forensics in 2017/18.

And yet, just as technological advancement creates challenges, it also offers potential solutions.



What we need to do is increase our forensic science research and innovation activity, target it more effectively, and find new ways to exploit technology for our law enforcement purposes. Otherwise, criminals will increasingly be able to stay one step ahead of our efforts to bring them to justice.

#### Forecast Digital Forensic Unit (DFU) spend to maintain DFU Effectiveness



<sup>1</sup> Including DNA, blood pattern analysis, controlled substances, toxicology, trace evidence (glass, hair, paint and gunshot residue etc.), entomology and fire investigation



We must attract, develop, and retain a forensic science workforce that can meet the needs of both today and tomorrow.

We face a number of related challenges in this area, particularly around staff retention and succession planning; career development; multi-skilling across forensic science capabilities (particularly traditional and digital forensics on the frontline); and preparation for future technologies and processes.

By working together, we can provide the knowledge, support, professional development, career pathways and modern forensic tools that we need to be able to retain, develop, and nurture a fully equipped, empowered, and sustainable workforce.

Moreover, our assessments have the full backing of both last July's joint Home Office, National Police Chiefs' Council (NPCC) and Association of Police and Crime Commissioners (APCC) review of forensic science<sup>2</sup> and the House of Lords Science and Technology Committee<sup>3</sup> 'blueprint for change' published just last month. The former cited a view amongst criminal justice system (CJS) stakeholders that "the dispute of forensic evidence in court could become commonplace without **change**". The latter deemed that

"forensic science in England and Wales is in a state of crisis and must be reformed urgently" and highlighted that "an absence of high-level leadership, a lack of funding and an insufficient level of research and development now means the UK is lagging behind others."

We believe that the FCN is the best way for us to meet these challenges, both collectively and individually. We never cease to be impressed by the array of talent, expertise and dedication

to be found within our forensic science community. But, to be effective, they need our support in helping to harness collective effort, strip away unnecessary duplication and inefficiency, and create the type of network (human and technical) that enables us, as individual police forces and law enforcement agencies, to maximise our investment, enhance our capabilities and share forensic science workload and intelligence whenever we want or need to do so.



# Forensic science in England and Wales is in a state of crisis and must be reformed urgently

- <sup>2</sup> Forensics Review Review of the provision of forensic science to the criminal justice system in England and Wales (July 2018)
- <sup>3</sup> House of Lords Science and Technology Committee Forensic science and the criminal justice system: a blueprint for change (1 May 2019)

### What will the FCN do for its members?

We highlighted above the three main elements of the FCN: people, service and technology. Subsequent sections of this prospectus provide the detail behind the products and services that the FCN will offer. But first we want to capture the essence of the FCN we are inviting you to join.



Across England and Wales, we currently employ more than 4,000 people in our various in-house forensic science capabilities: crime scene investigation, fingerprint enhancement laboratories and identification bureaux, imaging units and digital forensic units etc. These people perform critical roles but all too often they work in relative isolation, trying to tackle almost identical problems and often without easy access to learning from elsewhere. The FCN is designed to change this by providing the additional capacity needed to work with members and appropriate partners from across academia and industry to:

- create and maintain professional knowledge bases and quality management systems, able to be accessed by practitioners right across the FCN:
- create and maintain appropriate development programmes and career pathways for forensic science practitioners as part of a broader national workforce development and retention strategy;
- attract and shape the forensic scientists of the future:
- reduce members'
  accreditation burden by
  producing and validating
  a comprehensive suite
  of standard operating
  procedures and achieving a
  'validate once; verify many'
  approach across the network;

- support members to identify and introduce new capabilities right through from initial research and development to validation and deployment;
- support scientific support units and their forensic science practitioners in achieving the skills balance required between traditional and digital forensics;
- give practitioners a stronger voice and a greater sense of ownership of this critical area of our work, so that, in line with Policing Vision 2025, we can inspire them to create the capabilities, systems and processes that will enable them to provide the first-class services that the public deserves.



The FCN's service element is the central team that will be employed to manage and orchestrate all of the FCN's functions, deliver its products and services, and support the FCN membership. We have chosen to group the service element under four pillars, as illustrated below. Subsequent chapters of this prospectus provide the detail behind each of these pillars but in essence:



- Strategy, policy, advocacy
- · Capabilities, R&D and innovation
- Workforce strategy and development
- Knowledge, advice and guidance

Science's mission, on behalf of the FCN community, is to identify and exploit opportunities so that members can meet future challenges by having the people, knowledge, skills and specialist tools and capabilities they will need to do the right job in the right place at the right time.

It will do this by: working closely with wider criminal justice partners; horizon scanning; helping set strategic direction; providing a clear voice for the FCN community; creating capability roadmaps; bidding for funding and prioritising research and development activity; co-ordinating activity with other national programmes e.g. Digital Policing; working with industry to help create and deploy new capabilities; maintaining a catalogue of approved forensic science capabilities; creating and maintaining knowledge bases and working with academia to help develop the workforce of both today and tomorrow.



- Standards
- Validation
- Accreditation
- Knowledge, advice and guidance

Quality's mission, on behalf of the FCN community, is to achieve and maintain quality service with efficient, standardised processes, and to act as a single voice with key standards and accreditation stakeholders.

It will do this by: helping members to validate new techniques and capabilities; creating appropriate standard operating procedures; creating and maintaining quality management systems and ground truth databases; supporting members with their accreditation requirements; and working to achieve a 'validate once; verify many' approach wherever possible across the network.



- Strategic market management
- Supplier performance and market stability
- Knowledge, advice and guidance
- Contracting and commercial

Commercial's mission, on behalf of the FCN community, is to define, develop and maintain a sustainable and forward-looking commercial marketplace for both traditional and digital forensic science.

It will do this by: leading on forensic science market strategy and demand management; engaging with industry; advising on make / buy decisions; creating model contracts; monitoring contract and supplier performance; leading on national contracts / frameworks; contingency planning; and providing support to Gold and Silver groups in the event of any market failure.



- FCN ICT platform and Technical Design Authority
- Specialist capabilities and tools
- Brokerage and service management
- Business change

Operations' mission, on behalf of the FCN community, is to maximise resilience and effectiveness through the design, introduction and maintenance of new ICT platforms, tools, operating models and business change support.

It will do this by: providing and maintaining the FCN ICT platform and toolsets (see Technology below) and orchestrating the services enabled by it, including routing of workload across the network, digital storage and access, and associated performance management, data and analytics. It will also act as an intelligent customer, when interacting with technical programmes such as HOB, and provide business change support to FCN members when implementing new FCN capabilities.

#### Technology

The FCN's technology element consists of the technical capabilities being developed by the Transforming Forensics Programme in consultation with the forensic science community.

These are designed to connect and enhance members' forensic science capabilities and are being developed to ensure scalability and the opportunity for incremental growth, as resources allow. They include the FCN's underlying ICT platform and toolsets, which will:

provide web-based resources, including knowledge bases, to help practitioners access up-to-date learning, standards and requirements etc;

- provide, through joint working with other national initiatives, secure cloud-based storage and processing of forensic evidence;
- provide integration with local criminal case and evidence management systems;
- enable FCN members to prioritise and share workload across the network:
- provide service management information to control workflows, highlight bottlenecks and manage performance.

They also include specialist tools and capabilities. Some of the first examples of these are specialist fingerprint capabilities, such as:

- enabling CSIs to capture fingermarks digitally at the scene and transmit them electronically through the FCN platform to the most appropriate or chosen fingerprint identification bureau;
- enabling CSIs to capture, annotate and share photos of crime scenes and fingermarks in real time;
- providing new digital
  examination tools and
  enabling the production of
  automated practitioner notes.



This early emphasis upon fingerprint capabilities is designed to maximise the benefits to us of the Home Office Biometrics (HOB) Programme. Over time, and depending upon the level of continued investment through the Transforming Forensics Programme or other funding sources, we aim to extend the underlying platform and develop toolsets for use by many more forensic science capabilities. You can read much more about our plans in the *Operations* and *Future direction and development* chapters later on.

# When will the FCN's products and services be available?

The official go-live date for the FCN is **1st April 2020.** This is when all the FCN core team staff and the core ICT platform are scheduled to be in place. Supported by the Police Transformation Fund grant as part of the Transforming Forensics Programme, however, we have already started building FCN capacity and capability, and some of the FCN's products and services are already bearing fruit. Examples include:



the emerging FCN Science team, which is providing support to the NPCC Science and Innovation Board and is working closely with the Transforming Forensics DNA and Digital Forensics projects to create future capability roadmaps and trial new processes and technologies;



the FCN Commercial team, which has recently helped achieve national agreement on contract uplifts as a means of stabilising the traditional forensic science marketplace; continues to provide invaluable support to various Gold and Silver groups e.g. Randox retesting; and is currently supporting the development of a long-term market strategy for both traditional and digital forensic science;



the FCN Quality team, which is supporting the NPCC Performance and Standards Group and, through the creation of trouble-shooting teams, has been helping forces achieve their accreditation for fingerprint processes; is focusing upon the crime scene investigation accreditation challenge (ISO 17020 by October 2020); and is also working with the FSR and UKAS in developing an assessment approach;



the FCN Operations team, which is working with the fingerprint community to develop a new operating model for fingerprint identification, which not only maximises the potential benefits being enabled by the Home Office Biometrics (HOB) Programme but is also able to influence HOB's future direction. For example, Operations has recently procured changes to HOB by way of a tenprint export tool.

#### April 2020 is only the start - a picture of the future

The FCN will, of course, evolve as it responds to new challenges and opportunities and is shaped by its members. Similarly, it will support more and more capabilities as they are delivered either by the Transforming Forensics

Programme or by members of the FCN community themselves.

The diagram below illustrates how we envisage the core FCN team supporting the broader community over the next few years, with each of the FCN's four pillars working together to:

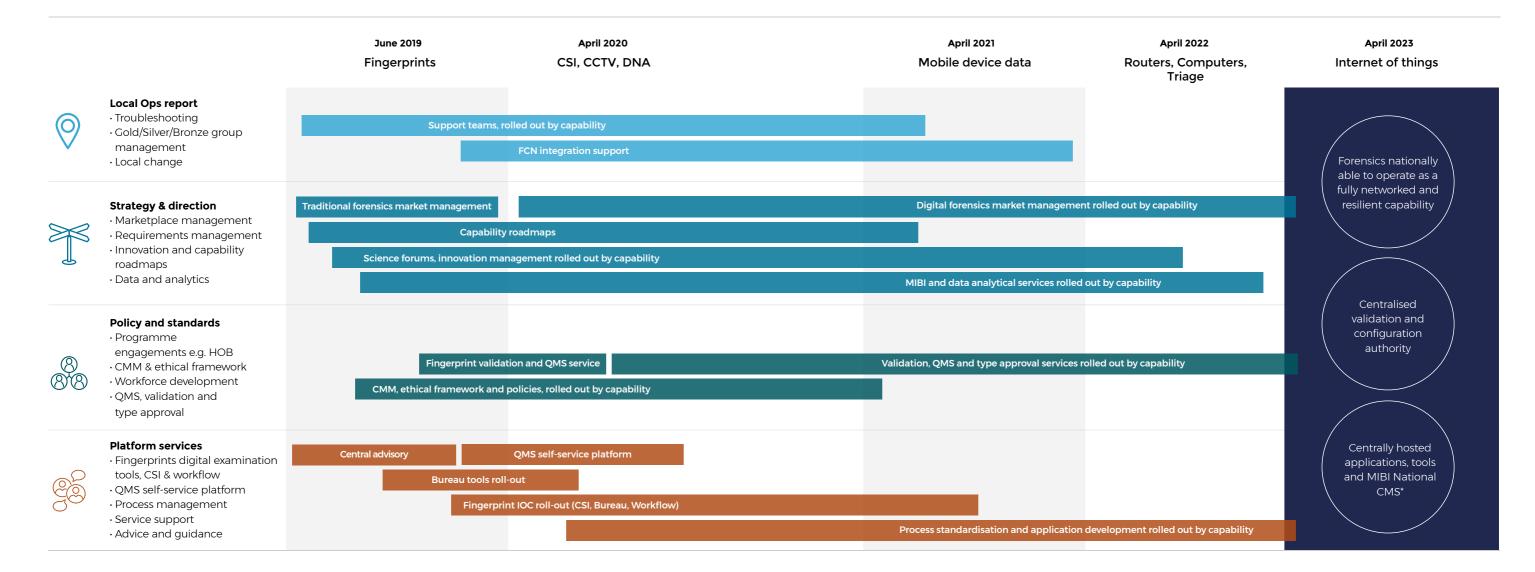
- provide appropriate local operational support to FCN members in the form of troubleshooting teams, business change advice and FCN integration e.g. onboarding to the FCN platform and adoption of new capabilities;
- provide appropriate strategy and direction across the whole spectrum of forensic science

capabilities, ranging from market management to innovation and capability development;

- improve policies and standards through the provision of appropriate quality management systems, validation services, and ethical framework and policy development;
- deliver enhanced forensic science processes and technical capabilities.

The breadth of forensic science and the scale of the challenges facing the FCN community, however, necessitate an incremental approach. The FCN core team will therefore focus upon forensic science capabilities in logical groups, starting, as it has, with some of the more traditional areas of forensic science but then rapidly extending its scope into the ever-expanding areas of digital forensic science.

As increasing numbers of forensic science capabilities are improved, standardised and integrated into the FCN network, the FCN will begin to realise its full potential. This is illustrated by the circles on the right of the diagram as the FCN community is able to achieve true resilience and economies of scale.



#### What will the FCN cost and what will members get in return?

It will cost approximately £5.5 million a year, starting from April 2020, to deliver the FCN products and services set out in this prospectus. You can read more about how this budget is made up, along with the benefits we expect members to receive in return, in our chapter on Costs and benefits.

The Chief Constables' Council and the APCC have already indicated a preference for this to be funded by the Home Office making a direct allocation to the FCN from the overall police funding settlement. The Home Office is therefore intending to include this £5.5 million within its spending review submission to the Treasury later this year. If this direct funding approach is not agreed, we will ask members to pay a membership contribution, proportionate to their Home Office grant allocations (or

equivalent), as they do for similar collaborative arrangements like the NPCC or NPoCC.

For a mid-size police force, this would work out at just under £123,000. Against that, though, we would expect it to receive a financial return on investment of approximately £465,0004 each year i.e. almost £4 for every £1 invested. This would be in addition to the significant non-financial membership benefits of reduced operational and reputational risk.

Furthermore, this return on investment excludes the significant savings we expect members to be able to make by being able to import and export forensic workload to even out peaks and troughs, and by adopting standardised FCN operating procedures. Our (Transforming

Forensics Programme) business case for fingerprints found that, if all fingerprint bureaux were able to operate at just the average cost of the most efficient currently, policing could save £5 million per annum (26% of the current cost base). If our model mid-size police force were also able to generate that level of savings, it would equate to a further £112,000 each year - almost the value of its entire annual membership contribution.

But this again only reflects the FCN's initial potential. Putting it another way, if introducing the FCN has the potential to save £5 million a year for fingerprints, just imagine the potential across all forensic science capabilities, especially in the ever-expanding field of digital forensic science.

#### How will membership work and how will I have my say?

The FCN is going to be a club: along much the same lines as the NPCC, with a host policing service (Dorset Police and Dorset Office of the Police and Crime Commissioner in the first instance) acting as the club's legal entities and providing the requisite corporate support services. To become a member, your organisation will just need to sign a Section 22A agreement, which we plan to issue in September 2019, following a round of consultation on a draft document to be issued in July. Membership will give you access to all the products and services set out in this prospectus,

as they develop, as well as an ongoing say in the FCN's evolution.

As with all clubs, membership will convey a range of rights and responsibilities. We have provided a flavour of these in the chapter on *Club Membership* but we will set out all these details in the draft Section 22A agreement we expect to be ready for consultation in July.

We are looking to keep the club's governance as streamlined as possible and ensure that it complements, rather than conflicts with or duplicates, the broader policing governance landscape.

You can read more about this in our chapter entitled For policing by policing but essentially the FCN will have its own Executive Board, which will be responsible for shaping and implementing the FCN's strategic delivery plan. This strategic delivery plan will be designed to support the work of the NPCC Forensics Portfolio Board and its sub-portfolios, on the one hand, and the work of the Police Reform and Transformation Board (PRTB), operating through the Transforming Forensics Programme, on the other, as illustrated below.

We are very excited about the FCN, as indeed are the Home Office, NPCC and APCC, judging by the Joint Review of Forensic Provision implementation plan they published in April, in which the FCN (and the Transforming Forensics Programme) are the focus of no fewer than eight of the 13 actions designed to improve forensic science within the criminal justice system and to help maintain public confidence in it.

Home Office

NPCC

Furthermore, we have the full backing of the Policing Minister,

Nick Hurd MP, who has recognised the role that the Transforming Forensics Programme has played both in assisting forces to achieve accreditation and stabilising the commercial marketplace, and has given his commitment to continue to support both the Transforming Forensics Programme and the FCN.

But to make the FCN a reality, we need your continued support. We very much hope that your organisation will become a founding member of our new FCN club and help us make the future for all our forensic science capabilities a much brighter one.

PRTB



We are keen to receive your feedback on this prospectus and encourage you to share your views with us through your usual NPCC regional contacts. This will help us to refine our plans and ensure that we create a FCN that works for all its members.

Similarly, we are keen to assess the current level of support for the FCN and have included a simple Expression of Interest form with the covering letters issued with this prospectus. A positive expression of interest will not bind your organisation in any way but will help us as we continue our planning and discussions with the NPCC, APCC and the Home Office.

If you have any questions in the meantime, you can email us at contact@transformingforensics.co.uk. We look forward to hearing from you.

Incl. representation from: NPCC, APCC, Home Office FCN Executive Board Sub-Portfolios Digital Forensics Market Place National FP Science & Never a better time

<sup>&</sup>lt;sup>4</sup> £4 return on each £1 invested expected from approximately the 3rd full year of operation.

# Welcome to a brighter future

### This section introduces the Forensic Capability Network (FCN) and provides details about:

- the major forensic science challenges and opportunities for policing;
- · what we mean by a Forensic Capability Network and what it aims to achieve.



#### Challenge 1

We need a more sustainable and forward-looking commercial marketplace.

Law enforcement relies almost exclusively on commercial forensic service providers for certain categories of forensic analysis<sup>5</sup>. With pressure on budgets, law enforcement agencies have been requesting smaller volumes of analysis in these categories. This, combined with more robust procurement practices and downward pressure on prices, made the market unstable as suppliers bid at unsustainable prices to chase diminishing market share. After the failure of a number of smaller suppliers in 2017,

January 2018 saw the country's third largest commercial provider of traditional forensic science services enter administration.

Fortunately, administrators secured a buyer for the majority of the business and the company has since been restructured. However, during the wind-down and transition period, we were only able to maintain forensic science capacity by providing significant

additional financial support and co-ordination effort; restricting our volume of forensic submissions and extending the timeframe for delivery; and relying upon the two largest traditional forensic service providers taking on additional workload.

We are also beginning to place increasing reliance upon commercial providers for digital forensic tools and analysis due to the growth in demand in this area. This market has a different dynamic and we do not rely upon the small number of large providers that we do in other areas. However, this poses different challenges and we are seeing law enforcement unwittingly contracting on unfavourable terms or with suppliers who do not have appropriate quality accreditation, security standards or business continuity plans in place - a situation that has already attracted the FSR's attention.



The only way to mitigate these risks is to create a more strategy-led, sustainable, quality-assured and forward-looking commercial marketplace. where we can forecast and communicate our demand effectively; phase our procurement activity; place greater emphasis upon quality, 'value-add' and sustainability; and give the market the confidence it needs to invest in the capabilities and capacity we really need.

s Including DNA, blood pattern analysis, controlled substances, toxicology, trace evidence (glass, hair, paint and gunshot residue etc.), entomology and fire investigation

#### Challenge 2

#### Lack of accreditation is an increasing risk for us all.

By October 2020 nearly all forensic science capabilities will need to meet robust ISO 17025 and ISO 17020 accreditation requirements and FSR Codes of Practice and Conduct. This includes the broad range of forensic activities undertaken by crime scene investigators (CSIs) out in the field, as well as the fingerprint enhancement officers and bureau experts that assist at major crime scenes and the ever-expanding array of digital forensic capabilities, including digital recovery at scenes. They will also need to be regularly audited and reassessed to maintain accreditation.

Our recent experience of fingerprint accreditation showed just how difficult this challenge will be. By the FSR's deadline of October 2018, only 8% of fingerprint bureau capacity in England and Wales had met its accreditation requirements. It took enormous effort, co-ordination and resource to get the majority of fingerprint bureau capacity (more than 60%) accredited by the legal compliance date of 25th March 2019 and even this has caused

significant additional backlogs due to the antiquated systems and unsupported procedures currently in use.

Fingerprint identification, of course, is only one small part of the overall forensic science landscape. The challenge involved in getting and keeping all our forensic science capabilities accredited each year is huge. The risk to us, both operationally and reputationally, of failing to meet these accreditation requirements is similarly huge.

Furthermore, with the Government backing a current Private Member's Bill to give the FSR statutory enforcement powers, and the Director of Public Prosecutions recently ruling that any fingerprint identification evidence playing a significant part in a criminal case now needs to have been provided by an accredited fingerprint bureau, there's no guarantee that we'll be able to continue providing forensic science capabilities if we fail to meet the FSR's quality standards.

Quality is, of course, broader than accreditation and in her 2018 annual report, the FSR remarks that "the initial award of accreditation to each fingerprint bureau is an important milestone but it does not represent the end of the journey towards improving quality. We need to promote and nurture a scientific culture and ensure that professional development, scientific advancement and the principles of balance, logic, robustness and transparency are at the centre of all organisations providing forensic science." The comprehensive Capability Maturity Model (CMM) discovery exercise, recently carried out by the Transforming Forensics Programme and police forces, supports the FSR's view. Findings highlighted a lack of nationally agreed performance metrics and benchmarking activity, which in turn constrained meaningful quality, efficiency and productivity measurement and analysis.



As the FSR states in her February newsletter: "if quality cannot be sufficiently prioritised, it may become unsustainable for some forces to carry out their own forensic science casework".

<sup>6</sup> Forensic Science Regulator Annual Report 2019 - published 19/1/19

#### Challenge 3

#### A more cohesive forensic science landscape will enable much stronger performance.

The currently fragmented law enforcement forensic science landscape, consisting of numerous different forensic science units trying to solve similar problems independently and operating to different processes, does not vield optimum results, either financially or operationally. Take accreditation, for example, where every variation in an end-to-end forensic science process needs separate and individual validation, documentation and accreditation by the United Kingdom Accreditation Service. Given that by October 2020 each police force or law enforcement agency will need to have over a hundred different forensic science techniques accredited or reassessed, the current landscape is costing us millions of pounds and thousands of hours of time that would be better reinvested elsewhere and is simply unsustainable.

The operational impact is just as evident. Different processes and a lack of networking capability make it almost impossible for most police forces and law enforcement agencies to share

forensic science workload efficiently and effectively, or capitalise on the intelligence or investigative opportunities that could be leveraged as a result.

You only have to consider the number of different police forces and law enforcement agencies involved in so much of today's cross-border law enforcement activity, for example 'County Lines' operations, child sexual exploitation, cyber-crime and counter-terrorism, to recognise the operational impact this fragmentation is having from both a resilience and performance perspective. And yet we are unable to assess just how significant an impact because we do not have a clear picture of overall demand.

As a result, the current landscape does not help to deliver Policing Vision 2025 or the Home Office's Forensic Science Strategy. Policing Vision 2025 calls for our specialist capabilities to be positioned, structured and deployed in a way that takes into account the need to rapidly protect communities and the vulnerable, as well as provide value for money.



The Home Office's Forensic Science Strategy is based on a national approach to forensic science delivery in the criminal justice system. Our forensic science landscape needs a new approach to align with these strategic frameworks, one which will also deliver efficiencies that can be reinvested to secure further improvements.

#### Challenge 4

We need to keep pace with technological change and the resulting increase in demand.

The pace of technological change is having a profound impact upon forensic science. Firstly, the demand for forensic science capabilities is rising sharply as the digital footprint associated with crime grows. Current estimates suggest that, by 2022/23 and without a significant change in our approach, we will need to spend between £200 million and £500 million per annum on digital forensics, just to maintain current performance. This compares to £80 million spent on digital forensics in 2017/18.

Secondly, the increase in digital material is causing us all significant information disclosure issues, with police disclosure failings already having been highlighted in a number of high-profile court cases.

Of course, technological change also presents exciting

opportunities. The challenge we face is how to prioritise the most promising opportunities; bring them to fully validated and accredited operational deployment without the challenges usually associated with making accredited technology available to every police force; and maximise their potential benefits.

Our recent CMM work found that "very few forces have an identifiable capability management plan for forensics that clearly specifies the skills and capability required over the medium term." The FSR has also highlighted that "falling income has constrained the level of research undertaken by forensic service providers in both public and private sectors."



These are both unsustainable positions for police scientific support units and, unless we can increase our forensic science research and innovation activity and target it more effectively, criminals will increasingly be able to stay one step ahead of our efforts to bring them to justice.

#### Challenge 5

We must attract, develop and retain a forensic science workforce that can meet the needs of both today and tomorrow.

This area offers numerous opportunities. The first is that in some forensic science disciplines, for example fingerprint identification, we have an ageing workforce. We need to put sufficient succession planning in place by developing or recruiting the right people with the right skill sets.

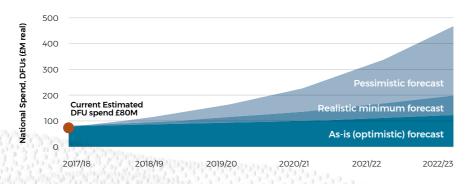
The second is that there is an increasing need for multi-skilling across forensic science disciplines. To date there has tended to be a clear demarcation between digital forensics, which are often the preserve of high-tech crime units, and other forensic science disciplines. With almost all crime

now having a digital footprint, we need to ensure that every crime scene investigator has the skills needed to deal with both 'traditional' and digital forensics.

The third is a shortage of modern forensic tools and information at the frontline, be this the ability to capture, annotate and transmit a fingerprint directly from the crime scene, or the ability to interrogate a comprehensive and up-to-date knowledge base whilst out in the field. The section on FCN products and services sets out the exciting ways in which the Science and Operations pillars in particular will tackle this challenge head on.

The fourth is the benefit we can realise from a comprehensive workforce strategy, through which we can gain a clear national picture of our specialist skillsets and create a compelling professional development and career pathway for our forensic science staff and leaders of the future. This will be a key factor in making a forensic science career in policing more attractive than in other industries where these skills are also in demand, thereby helping to address skills shortages and maximising our return on investment in staff development by ensuring that we attract and retain the best people with the skills we need.

#### Forecast Digital Forensic Unit (DFU) spend to maintain DFU Effectiveness



We believe that the Forensic Capability Network is the best way for us to meet all these challenges, both collectively and individually. We have an enviable array of talent, expertise and dedication within our forensic science community. But, to be effective, they need our support to harness collective effort, strip away unnecessary duplication and inefficiency, and create the type of network (people and technical) that enables us, as individual police forces and law enforcement agencies, to maximise our investment, enhance our capabilities and share forensic science workload and intelligence whenever we want or need to do so.



#### A community of forensic excellence

The next section provides descriptions of the products and services that the Forensic Capability Network will provide and explains when we expect them to be available. Before we do that, we want to explain the concept behind the FCN and to capture the essence of what it is trying to achieve.

Readers will not be surprised to hear that we are designing the FCN to address the challenges and exploit the opportunities set out in the previous chapter, with the flexibility to pursue other priorities as they emerge. This is reflected in our proposed FCN products and services.

Equally important to **what** the FCN is seeking to achieve is **how** the FCN is seeking to achieve it.

In essence, we are designing the FCN to create **a truly networked policing model** - one which, as articulated by the Specialist Capabilities Programme<sup>7</sup> and illustrated on the next page, retains the current mixed economy of

police forces and collaborative ventures but seeks to strengthen the links between them in a way that:

- better connects supply to demand on a national basis and
- creates a 'mutual' mindset, supported by: better data on cost, supply and demand; a shared understanding of risk, and the specialist capability expertise needed for the network to thrive.

In its broadest terms, the FCN is therefore the community of all its members' forensic science capabilities and expertise, working together nationally to deliver high quality, specialist forensic science capabilities; to share knowledge; and to improve resilience, efficiency, quality and effectiveness.

These forensic science capabilities will still be owned and managed locally or in whatever groupings make most sense to individual police forces and law enforcement agencies. However, by being part of the FCN, they will benefit from a level of collective investment,

#### focus, networking and support

that has never been achieved before. This concept is illustrated below and explained in more detail in the next few chapters.

To achieve this, the FCN will have a core team, which will be employed to provide products and services that are of value to all FCN members and a technical platform which will enable FCN members to share workload and expertise, as well as access some of the technical products and services provided by the core team.

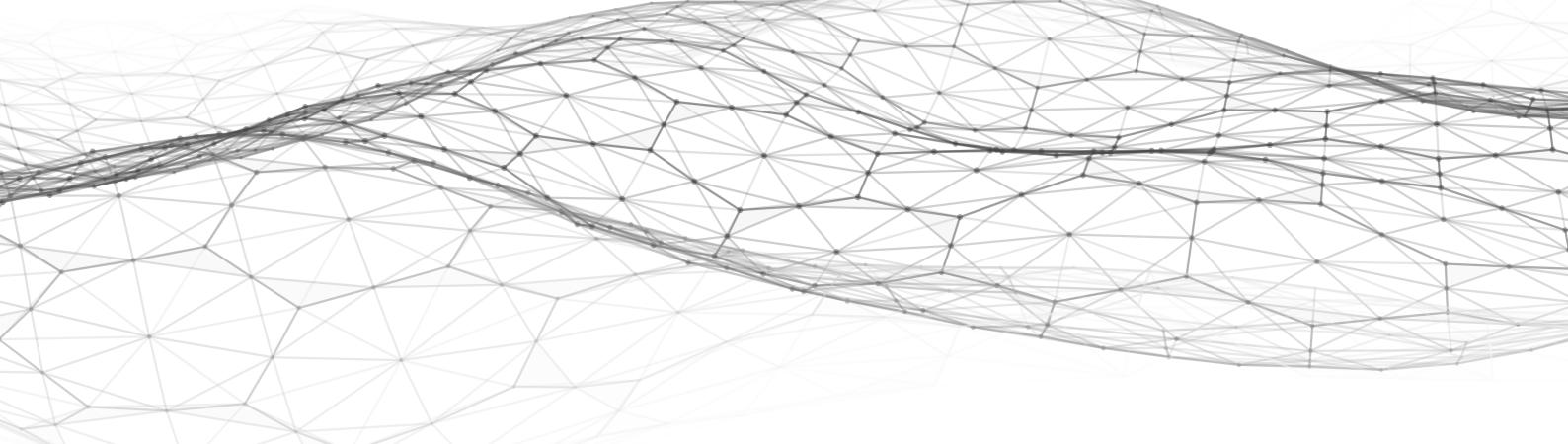
And to ensure that the FCN meets the needs of the organisations it has been established to support, it is being established as a 'club' 8: owned and governed by its participating police forces, Police and Crime Commissioners and law enforcement agency members. It will be designed to shape and develop our forensic science capabilities in the way that makes most sense to us, as those responsible for delivering policing and law enforcement outcomes to our communities.



We are designing the FCN to create a **truly networked policing model** - one which, as articulated by the
Specialist Capabilities Programme<sup>7</sup> and illustrated below

<sup>&</sup>lt;sup>7</sup>The Specialist Capabilities Programme - Phase One report - October 2016

 $<sup>^8</sup>$  By virtue of a Section 22A Agreement and similar in construction to the National Police Chiefs' Council.



# FCN products and services

#### This section sets out:

- · details of the products and services that the FCN will provide to its members;
- · case studies describing how FCN products and services are already helping the forensic science community to meet the challenges set out in the previous section;
- · a timetable for when products and services will be available.



#### Reople People

A network made up of all our forensic science professionals who will share skills and expertise to improve standards and be able to share workload to increase resilience.



#### Service

A core team helping to define. co-ordinate and orchestrate forensic service delivery, focus investment and engage with the marketplace to continually improve forensic capabilities across law enforcement.



#### Technology

A platform and toolset providing the technology to connect and enhance forces' existing forensic capabilities and enabling them to share work by using common processes and policies.

The section is organised around four main themes: Science, Quality, Commercial and Operations. We refer to these, as illustrated by the diagram below, as the four pillars of the core FCN capability.

The design of the FCN pillars and the products and services that sit under them reflect extensive stakeholder requirements gathering and consultation undertaken at regional workshops and events over the last nine months. Each pillar is explained in more detail in the following chapters.



advocacy

- Strategy, policy,
- · Capabilities, R&D and innovation
- Workforce strategy and development
- · Knowledge, advice and guidance



- Standards
- Validation
- · Accreditation
- · Knowledge, advice and guidance



· Strategic market

management

- · Supplier performance and market stability
- · Knowledge, advice and guidance
- · Contracting and commercia



- · FCN ICT platform and Technical Design Authority
- Specialist capabilities and tools
- · Brokerage and service management
- · Business change



Products and services:



#### Strategy, policy, advocacy

- Forensic Science Strategy
- · Office of Chief Scientist
- Advocacy
- Ethics

Science

in the right place at the right time."

Science's mission, on behalf of the FCN community, is:

"To identify and exploit opportunities so that members can meet

future challenges by having the people, knowledge, skills and specialist tools and capabilities they will need to do the right job

This will be crucial in helping the FCN community meet the pace of

technological change / increasing demand, workforce recruitment,

To achieve this mission, Science will provide products and services

to the FCN community under the following four service headings

and as described in more detail in the following paragraphs.

retention and development and quality and accreditation

challenges highlighted in the previous section.

Mission

Forensic Capability Network Prospectus

- Information management and disclosure
- · Retention and archiving
- · Streamlined reporting



#### Capabilities, R&D, innovation

- Horizon scanning
- · Capability roadmaps
- · R&D / Innovation
- · Capability evaluation
- · Capability catalogues
- · Capability Readiness
- · Capability Maturity



#### Workforce

- · Workforce strategy
- · Recruitment & retention strategy
- · Learning culture
- Partnerships with academia



#### Knowledge

- · Advice and guidance
- · Knowledge base
- · Literature review
- · Legislation review
- · International learning
- · Forensic archiving



#### Strategy, policy and advocacy

Harnessing collective effort and achieving consistent strategy, purpose and direction will be essential if the FCN is to respond effectively to the challenges and opportunities set out in the previous section.

#### To help achieve this, Science will:

- work with the FCN community, the NPCC Forensics Portfolio Board, its sub-portfolios and a broad range of external stakeholders to develop, maintain and help execute an overarching forensic science strategy on behalf of UK law enforcement agencies;
- work with a broad range of external stakeholders, including criminal justice agencies, the Home Office commissioning hub, the United Kingdom Research Institute (UKRI) and national

programmes such as Digital Policing, to help ensure strategic alignment between initiatives that will either impact on forensic science or be enhanced by it;

· provide, through a panel of

- experts, the Office of the Chief Scientist expertise, which will be able to provide a capability lead advisory function to the existing NPCC portfolio groups of Science and Innovation, Digital Forensics and Biometrics;
- provide a clear voice for, and represent the interests of, the FCN community on a national and international stage e.g. the UKRI and the European Network of Forensic Science Institutes;
- establish and promote an ethical framework to assist in supporting design and

evaluation across the FCN community. It will also ensure that ethical considerations are taken into account at the outset of the design or evaluation of any new FCN capability;

- by leading on the production of appropriate information management, data protection and disclosure policies for forensic science, thereby enabling forensics to play its role in weeding and being able to disclose information effectively;
- support the FCN community by leading on retention and archiving strategy and policies;
- support the FCN community by leading on reporting the results of forensic science into the criminal justice system e.g. streamlined forensic reporting

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Institute (UKRI) and national in supporting design and streamlined forension



#### Capabilities, research and development, innovation

One of Science's most important functions will be working with the FCN community to identify, evaluate and prepare new capabilities for implementation. To achieve its aim of taking great ideas from concept through to implementation, Science will:

- be the 'eyes and ears' of the FCN community by horizon scanning for emerging capabilities, new opportunities and potential threats;
- work with the FCN community and with partners from across industry and academia to create capability roadmaps, initially up to 2025, which can be used to communicate the needs and priorities of the FCN community in terms of research and innovation.
   Capability roadmaps for DNA and digital forensics are already underway;

- work with the FCN community, academia, industry and funding bodies, such as UKRI, upon which it will have a seat, to maximise funding opportunities and to prioritise research and innovation activity more effectively;
- act as a focal point for targeting and co-ordinating research and development investment and, where funding allows, support research programmes;
- share the resulting learning with the community, through the FCN's knowledge bases, to avoid R&D being duplicated;
- take the lead in helping
  the FCN community shape,
  trial and evaluate new
  capabilities by considering
  the technological readiness of
  new products and capabilities
   a good example of how it will
  do this is set out in the Science

in action section:

- work with forensic service providers to ensure that innovation is exploited and encouraged;
  - help FCN members get ready for emerging forensic science capabilities in a co-ordinated way by preparing tailored guidance and capability adoption toolkits;
  - maintain a catalogue of approved new forensic science capabilities, so that FCN members can easily see what capabilities are available to them and how they have been evaluated;
  - work with the FCN community to maintain up-to-date
     Capability Maturity
     Models<sup>9</sup>, describing the range of capabilities desired across the FCN and recording individual members' maturity against them.

- routes into the forensic science profession, including operational, support and leadership roles;
- work with the FCN community and academic institutions to create a workforce retention strategy and plan to encourage talented staff to remain in the police forensics environment, thereby ensuring that organisational knowledge is retained; high staff morale is maintained; and the public is served as effectively as
- possible. This strategy will include the creation of tailored professional development and career pathway opportunities; recognition and reward strategies; and celebration of individual and team successes;
- · work with the FCN community and the Quality team to develop a learning culture, which embraces the FSR's desire to "promote and nurture a scientific culture and ensure that professional development,

scientific advancement and the principles of balance, logic, robustness and transparency are at the centre of all organisations providing forensic science;"

 work with the FCN community to leverage existing partnerships with academia and create new ones, so that academic institutions can support all FCN members in recruiting and developing their forensic science workforce.



#### Knowledge

To perform at their best, our forensic science professionals will need easy access to the latest and most relevant knowledge.

#### Science will therefore:

- working closely with the broader FCN community, provide advice and guidance to FCN members on all forensic science matters. It will also provide advice and guidance to the NPCC portfolio groups of Biometrics, Science and Innovation and Digital Forensics:
- work with the FCN community to create and maintain an extensive professional knowledge base <sup>10</sup>, which

will be accessible by all FCN members and their staff and will contain, from a Science perspective, a very broad range of reference materials including catalogues of approved new capabilities; capability roadmaps; capability trials and evaluations; legislation and changes in legislation; research studies and access to scientific journals;

- review scientific literature and provide summaries /commentaries for FCN members;
- support, through the Office of the Chief Scientist, the independent review of scientific methodology being

performed by thecriminal justice system;

- review existing and new legislation and provide summaries / commentaries for FCN members. It will also work with the FCN community to represent the views of FCN members in responding to government consultations etc;
- act as a focal point for international learning and information exchange;
- work with the Government,
   Forensic Archive Limited and
   forensic service providers
   to find a more sustainable
   solution to the archiving of
   forensic casework undertaken
   post-2012.

#### Workforce

The FCN's fundamental strength is its people and policing needs to be able to attract, develop and nurture the very best.

#### Science will therefore:

 work with the FCN community to create a workforce strategy and plan, which, driven by business intelligence about demand for both existing and future forensic science capabilities, will help FCN members to know what their forensic science workforce could look like and how they might achieve it, so that they can be successful in having the right number of people, with the right skills, in the right place at the right time;

 work with the FCN community, academic institutions and wider industry to create a workforce recruitment strategy and plan, which supports FCN members in recruiting the numbers and calibre of workforce they need to meet the forensic science needs of both today and tomorrow. It will be designed to attract the most suitable individuals from across society and will involve working with members, universities, colleges and awarding bodies to provide alternative entry pathways and maximise the breadth and depth of possible

#### <sup>9</sup>The Transforming Forensics Programme has been working with police forces to create a series of capability maturity models (strategic, fingerprints and standards & accreditation so far). The FCN core team will assume responsibility for maintaining these once they become "business as usual".

#### Science in action

Science, as with most elements of the FCN core team, is only beginning to take shape now as resources are recruited. However, supported by the broader Transforming Forensics Programme, Science is already delivering benefits. Two existing examples demonstrating the way that Science will operate are DNA and digital forensics.



<sup>&</sup>lt;sup>10</sup> As part of the FCN's Quality Management System.

#### Case Study: DNA

Science is helping to shape the future of the National DNA Database (NDNAD).



#### Current stakeholder priorities:

- · improving service provision to users;
- developing more flexible reporting processes to provide more appropriate, consistent and understandable information to investigators and prosecutors;
- exploiting developments in DNA Chemistry;
- exploring ways to enhance profile storage, interpretation, comparison and reporting.



#### Science's role currently includes:

- working with the FCN Community and other stakeholders to capture and prioritise law enforcement's requirements for new developments in DNA, aligned to Policing Vision 2025;
- creating a 10-year capability roadmap to drive business transformation in DNA;
- developing a requirement for a new DNA operating model describing new DNA services and capturing the business change necessary for successful delivery.



### As the project progresses, Science's role will expand to include:

- helping to shape the resulting trials, ensuring that they have appropriate statistical rigour;
- leading on evaluating trial results;
- publishing trial results and including them within the FCN's Knowledge Base;
- preparing guidance and capability adoption toolkits to help FCN members get ready for introduction of the new capabilities.

#### Case Study: Digital forensics

Supported by the emerging FCN, the Metropolitan Police Service is leading a proof of concept research trial involving automated mass ingestion and remote search and review capabilities. The focus area is child abuse imagery and the intended purpose of the new capabilities is to automate the initial stages of the forensic workflow. This should free up examiners to work on the more specialist areas of interpretation and review, and enable the remote search and review of digital data by investigating officers via a user-friendly networked platform, thereby reducing uncontrolled copying and transfer of forensic data and streamlining the investigative phase of an enquiry.



#### The objectives of the trial are to:

- conduct a high-level assessment of the change in process times achievable by introducing new processes for automatic mass ingestion and remote search and review, to enable modelling of costs and benefits for future implementations;
- assess the effect of the new processes on users, including their satisfaction with the new processes and how they affect their investigative activities and risk judgements;
- gain an understanding of the issues that could affect implementation of the new processes to facilitate planning for adoption in other forces.



#### Science's role for this and for future capabilities involves:

- working with the FCN community to identify opportunities and agree priorities;
- identifying and securing research and development funding (in this case Police Transformation Funding through the Transforming Forensics Programme);
- working with the FCN community to identify a FCN member to lead the trial;
- helping to shape the trial, ensuring that it has appropriate statistical rigour;
- leading on evaluating the results of the trial;
- publishing the results of the trial and including them within the FCN's knowledge base;
- preparing, in the event of a successful trial, guidance and capability adoption toolkits to help FCN members get ready for introduction of the new capabilities.



Products and services:



#### Standards



- · Competency frameworks, training & assessments
- · Catalogue of approved training providers
- · Quality and performance management



#### **Validation**

- "Validate once; verify many"
- · Validation plans and timetable
- · Validation pilots and evaluation
- · Validation library
- · Verification plans and assessments



#### Accreditation

- · Single voice with FSR & UKAS
- · Accreditation landscape planning
- · Accreditation support, advice and guidance
- · Compliance requirements · Trouble-shooting support
- · Advice and guidance

Knowledge

- · Knowledge base
- · Quality management system
- · Ground truth database



#### (v)(x) Standards

Quality's overall aim, as illustrated by the diagram overleaf, is to transform the landscape from its current disparate and fragmented state to one where, from a quality and accreditation perspective, the FCN community operates as a single cohesive unit where quality culture is embedded and accreditation readily achieved.

#### To achieve this, Quality will:

· work with the FCN community to develop best practice and maintain a set of national standard operating procedures for forensic science capabilities undertaken by the FCN community - this will be a gradual but systematic process as the team, assisted by FCN members, works through the broad range of traditional and digital forensic capabilities;

- · work closely with Science to develop and agree standard operating procedures for new capabilities that are introduced following trial and evaluation;
- · work with the FCN community to implement a robust and effective competence framework to support the continuous professional development of staff and to enable consistent assessment of skills, which will support auditable quality assurance frameworks;
- · maintain and develop the competence framework to meet FCN members' needs and to reflect emerging requirements for new knowledge, skills and behaviours - ensuring that it is compliant from a legal and diversity perspective, protecting members from such challenges;

- · train members in the use of the competence framework, as required, and offer a service to train assessors;
- · work with members to undertake a training needs analysis for all new capabilities implemented by the FCN, which will lead to the **development of** training materials (usually by external training providers), a training methodology and a competence assessment methodology. Training, or coaching where more appropriate, will reflect the target audience's preferred way of accessing learning. Where possible, courses will be submitted for accreditation so that they have a learning 'value' outside of the FCN community and can be used towards accredited learning programmes;

To achieve this mission, Quality will provide products and services to the FCN community under the following four service headings and as described in more detail in the following paragraphs.

Quality's mission, on behalf of the FCN community, is:

standards and accreditation stakeholders."

highlighted in the previous section.

"To achieve and maintain quality service with efficient,

standardised processes, and to act as a single voice with key

This will be crucial in helping the FCN community meet the quality

and accreditation, pace of technological change / increasing

demand and cohesive forensic science landscape challenges

Quality

Mission

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· maintain a catalogue of approved training providers and associated forensic science capabilities, so that FCN members can recruit and develop their forensic science workforce with confidence in the resulting standard. Quality will ensure that **training** providers included in the FCN's approved catalogue are clear on specific training requirements so that they know the standard and content required. Working closely with the College of Policing, Quality will also quality assure providers, their trainers and

their course materials, and monitor and evaluate their training delivery. This will enable FCN members to engage with providers and access training, knowing that it is **fit for purpose and quality assured**;

enabled by the new electronic Quality Management System (QMS) being implemented by the Transforming Forensics Programme, help improve overall FCN community quality and performance, ensuring that competence assessments are undertaken regularly and

that FCN members have the quality information and support they need. This will include the results of internal audits: instances of nonconformance; assessment outcomes; customer feedback; corrective actions; improvement suggestions; trend analysis; calibration management; advice and guidance; a validation library (see below); quality and technical procedures; competency assessments and training records.

Current landscape Future landscape

- · Disparate service delivery
- Duplication of effort
- · Un-validated methods
- Accreditation failures
- · Open to challenge
- Uncertainty
- · Lack of co-ordination
- Increased Turn Round Time
- Escalating costs

- Alignment of processes
- Collaborative validation
- Accreditation support
- · Risk based approach
- Standard Operating
   Procedure convergence
- · Competency programme
- · Shared learning

- National standard operating procedures
- · Standardised processes
- Validate once
- Accredited systems
- Professionalised workforce



Quality assurance will enable FCN members to engage with providers and access training, knowing that it is fit for purpose and quality assured



#### **Validation**

Quality will be aiming to achieve a 'validate once; verify many' operating model across the FCN community, since this will significantly reduce the amount of time and resources spent on validation and will make accreditation much easier and cheaper for all FCN members.

To achieve this model, Quality will:

- work with the FCN
   community to act as a single
   Validation Authority, which
   will be responsible for ensuring
   that each forensic science
   process is validated effectively
   and the results robustly
   analysed and understood.
   Quality will produce and
   consult upon a national
   validation strategy to help
   bring this into effect;
- create and maintain a
   Validation Library, as a subsection of the FCN's Quality
   Management System, to store details of scientific study, validation activity, results and reports;

 work with the FCN community to create a timetable for validation or revalidation of each identified process or method in accordance with the accreditation timetable;

Quality will take responsibility for the creation of validation plans. The FCN core team cannot validate a forensic science process or method in isolation since validation relies upon appropriate testing by members of the FCN Community. Quality will therefore work with the FCN Community to:

- · determine and review the requirements of all the users involved in each process or method to be validated:
- determine and review the specification for the validation pilot;
- risk assess the process or method;
- · set acceptance criteria;
- identify and agree which FCN members will undertake the validation;

 write a validation plan setting out roles, responsibilities, timelines and acceptance criteria.

Quality will also:

- take responsibility for evaluation of the validation pilots, analysing outcomes, assessing compliance and understanding process or method limitations;
- produce and publish a validation report for each validation pilot;
- work with the FCN
   Community, once a process
   or method has been validated
   successfully, to produce a
   verification plan for other
   FCN members to adopt.



#### Accreditation

The FCN's ultimate aim is to achieve a level of standardisation and harmonisation across the FCN community that will enable all FCN members to be covered by a single set of accreditations - one for each forensic science capability. As well as maximising the resilience and flexibility of the FCN, this will dramatically reduce the time and cost involved in achieving and maintaining accreditation. In the short term the challenge will be to help FCN members achieve their current / imminent accreditation requirements, whilst preparing the ground for the future streamlined accreditation landscape.

To help achieve this, Quality will:

• act as the FCN community's single voice and advocate with the FSR and UKAS.

This co-ordination role has already helped accelerate forces' preparedness for UKAS's assessment visits and

resulted in better assessment

outcomes. In the longer term,

it will be pivotal in ensuring that the FCN community can both respond effectively to the FSR's requirements and be able to influence them;

• maintain an overarching accreditation landscape so the FCN community has an accurate and up-to-date picture of accreditation status and activity. This will also enable Quality to work with UKAS to maximise the community's ability to meet the FSR's accreditation timetable.

Quality will **provide**accreditation support to FCN members. This will involve:

- interpreting FSR requirements and providing guidance;
- producing pre-accreditation checklists and other standardised accreditation documents and templates;
- providing advice and guidance and, where needed, undertaking internal assessments prior to the official UKAS visits;

• sharing learning from other FCN members' accreditation visits and maintaining a national Risk Register of Failure Modes and Effects Analysis, together with agreed standardised mitigations, to help maximise the probability of success.

Quality will also:

- provide targeted troubleshooting support where FCN members are recognising difficulties with specific issues that are posing a risk to their accreditation;
- help FCN members migrate from their current processes and methods to agreed, efficient, compliant standard operating procedures, so that the FCN community can realise efficiency gains; operate a 'validate once; verify many' model; accelerate the accreditation journey and eventually be accredited once under the FCN umbrella.



#### Knowledge

Consistent quality forensic science will only be achieved with access to good quality, verified and up-to-date knowledge.

Quality will therefore:

- provide advice and guidance to FCN members on all forensic science quality and accreditation matters;
- provide capability lead advice and guidance to the NPCC Performance and Standards portfolio group (and other portfolio groups as required);
- work with the FCN community to create and maintain an extensive knowledge base,

which will be accessible by all FCN members and their staff and will contain, from a Quality perspective, a very broad range of reference materials including catalogues of quality assured capabilities and training providers; best practice guidance; standard operating procedures; validation plans and reports; verification plans and reports; pre-accreditation checklists; assessment outcomes; internal audits and auditing schedules; risk registers; and lessons learnt documentation;

 establish and maintain a comprehensive electronic Quality Management System, which as well as incorporating the knowledge base above, will give FCN members a clearly defined set of business process documents and enable them to track competency assessments so that they can consistently meet customer requirements and continually improve efficiency, effectiveness and customer satisfaction;

 establish a national ground truth database, which FCN members will help populate and which will provide robust reference material on which to base validation, training and proficiency tests.

#### Quality in action

Quality, as with most elements of the FCN core team, is only beginning to take shape now as resources are recruited. However, supported by the broader Transforming Forensics Programme and the FCN community itself, Quality is already delivering benefits. Four existing examples demonstrating the way that Quality will operate are: knowledge bases, fingerprints, CSIs and digital forensics.





Quality will provide accreditation support to FCN members. As well as maximising the resilience and flexibility of the FCN, this will dramatically reduce the time and cost involved in achieving and maintaining accreditation.

#### Case Study: knowledge bases

Quality, as well as guiding the design of a new electronic Quality Management System, has been creating a series of interim knowledge bases, which are interactive PDF documents with links to important reference material, advice and guidance.



As of April 2019, three have already been published (Crime Scene Investigation, Fingerprints and Digital). Another (Fire Investigation) is scheduled for release shortly.

# Case Study: CSI ISO 17020 accreditation

The FSR's deadline for police forces and law enforcement agencies to obtain ISO 17020 accreditation for their CSI capabilities is October 2020. Given the breadth of a CSI's activities, this challenge makes the recent fingerprint bureau accreditation challenge look rather modest.



To help the FCN community meet this challenge, Quality is currently spearheading the national CSI work streams for accreditation and validation of CSI end-to-end processes for 'simple' / 'volume' crime scenes. These are aligned to key activities including: anti-contamination, detained property, recovery garages, drying cabinets, training and competency, and national procurement of consumables; and involves working with the FCN community; identifying best practice; identifying gaps; and producing a comprehensive set of validation and verification plans. This will enable increased efficiency for CSI accreditation across a number of evidence types. Quality will then extend this approach to major / complex crime scenes

# Case Study: fingerprints

Gaining ISO 17025 accreditation for fingerprint identification bureaux has been a huge challenge for police forces. By the FSR's deadline of October 2018, only 8% of England and Wales fingerprint bureaux, expressed in terms of activity, had met its accreditation requirements. Accreditation became a legal requirement on 25th March 2019 and by that date more than 60% of fingerprint bureaux capacity had been accredited, with a further 25% having been recommended for accreditation.



This has involved huge effort by police forces and their fingerprint bureaux but the FCN Quality team has also played a significant role by co-ordinating effort, sharing good practice, providing advice and guidance, and undertaking preassessment checks.

Over the next 12 - 18 months, as both the Home Office Biometrics and the Transforming Forensics Programmes introduce new fingerprint identification capabilities<sup>11</sup> and a new operating model, Quality will work with the FCN community to validate new processes and methods, develop new standard operating procedures and prepare FCN members for their inclusion in the next round of accreditation.

#### Case Study: digital forensics

Quality is currently supporting a number of the digital forensics work packages within the Transforming Forensics Programme. These include:



- · creating a national validation package for level 1 mobile phone data extractions;
- designing and delivering a framework for a national Configuration Authority to support the digital forensics community in meeting their ISO 17020 and 17025 accreditation requirements and the FSR's Codes of Practice and Conduct (FCN's 'validate once; verify many' approach);
- developing a catalogue of validated,
   verified and then accredited digital forensic capabilities;
- a proof of concept research trial involving automated mass ingestion and remote search and review capabilities (described in more detail in the Science chapter).

The previous chapter described Science's role in supporting the development and deployment of new capabilities. Quality's role will dovetail with that of Science and involve:

- · creating an appropriate validation plan;
- · evaluating the validation pilots;
- · producing and publishing a validation report;
- · creating an appropriate verification plan;
- supporting verification activity, producing a validation completion certificate and publishing it, together with other validation documentation, in the FCN Validation Library;
- producing and publishing the resulting standard operating procedure;
- undertaking a training needs analysis; producing a training methodology; commissioning training courses / inputs and producing a competence assessment methodology;
- · providing accreditation support.

<sup>&</sup>lt;sup>10</sup> Covered in more detail in the Operations chapter.



Products and services:



#### Strategic market management

- Market strategy
- · Make / buy analysis
- Strategic supplier relationship & supply chain management
- Demand and capacity management
- · Strategic performance



#### Supplier Performance and stability

- Supplier & contract monitoring
- Contract complianceContingency planning
- Business continuity
   & disaster recovery



#### Knowledge

- Advice and guidance
- Knowledge base model contracts and standard specifications etc.
- · Strategic lessons learnt



#### Contracting and commercial

- · Requirements
- · National contracts /
- frameworks
   R&D / innovation
- · Section 22A





#### Strategic market management

A healthy forensic science market is crucial to the FCN community if it is to meet the challenges it faces in terms of overall demand and the pace of technological change.

#### **Commercial will therefore:**

- provide national oversight, monitoring and management of the commercial forensics marketplace (both traditional and digital) and work with the FCN community to ensure that there is a range of quality-assured suppliers in the marketplace, able to service the needs of the FCN community.
- develop a forensics market strategy supported and underpinned by:
  - ongoing due diligence of commercial providers in the market;

- developing and maintaining long-term commercial plans to ensure the sustainability of individual capabilities and a strategic approach to the marketplace;
- horizon scanning to identify new service providers, encourage new providers into the forensics market and support existing providers to expand and diversify their offerings;
- managing risk and resolving emerging issues in the marketplace;
- analysis of wider market intelligence to understand the likely future health of the market and influence decision-making accordingly;
- manage and maintain a national overview of forensics market capability;

- provide advice and support to stakeholders including the FCN, FSR, Home Office, NPCC and APCC about potential market impacts of policy decisions and legislative change;
- · work with the FCN community in developing and presenting the results of appropriate make / buy analysis and its expected impact on the FCN community's ability to meet both its current and future needs this will enable an objective and robust analysis of potentially critical decisions to ensure that the needs of the whole FCN community, both current and anticipated in the future, are considered and decisions taken accordingly;

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Commercial

Commercial's mission, on behalf of the FCN community, is:

"To define, develop and maintain a sustainable and forward-

This will be crucial in helping the FCN community meet the

looking commercial marketplace for both traditional and digital

sustainable and forward-looking commercial marketplace, pace of

technological change / increasing demand and cohesive forensic

science landscape challenges highlighted in the previous section.

To achieve this mission, Commercial will provide products and

services to the FCN community under the following four service

headings and as described in more detail in the following

Mission

paragraphs.

Forensic Capability Network Prospectus

forensic science."

- take the lead in developing and maintaining strategic supplier relationships and supply chain management approaches and will maintain regular engagement with forensic service providers for the benefit of all parties;
- co-ordinate and lead national negotiations with forensic providers either directly or via associations such as the
- Association of Forensic Service Providers (AFSP) in response to national issues or changes;
- be responsible for overall demand and capacity management including demand forecasting - by co-ordinating and making this information available, the FCN will help the commercial marketplace, and FCN members themselves,
- target future investment and capability / capacity development;
- be responsible for monitoring and reporting on the overall performance of the forensics market supply chain and using this management information to support the continuing improvement of the forensics market strategy.



#### Supplier performance and stability

The last two to three years have been particularly difficult for consumers of forensic products and services due to supply chain instability and failure, as well as the alleged manipulation of test results. This has led to the need for management of successive supply crises rather than proactive oversight and management of supplier resilience.

#### **Commercial will therefore:**

· work with the FCN community to develop and implement a consistent and proactive approach to the review of suppliers including financial **due diligence** - this will enable supplier performance and compliance to be measured objectively and outputs to be shared with the wider FCN community, as well as helping Commercial to develop and maintain appropriate engagement plans with suppliers to ensure that performance and stability are monitored and any potential

- concerns identified and managed;
- provide supplier and contract monitoring at a strategic level by implementing national Supplier Relationship Management (SRM) processes; gathering and collating national market management information; and undertaking regular due diligence financial, performance and accreditation checks etc. Individual FCN members will support this activity through their local SRM processes;
- monitor overall contract compliance against individual contracts, using performance data provided by both FCN members and forensic providers;
- develop and maintain contingency plans for managing demand and minimising service disruption and cost impacts in the event of a major incident or market failure e.g. major quality issues or the loss of market capacity;

- · work with both strategic forensic providers and FCN members to ensure that they, and the FCN as a whole, have appropriate **Business Continuity and Disaster** Recovery (BCDR) plans in place - this will be backed up by incorporating BCDR provisions within model contract documentation and introducing periodical testing regimes to ensure that the FCN community is able to maintain supply and performance in the event of a disaster within its supply chain.
- In addition to developing BCDR plans for the longer term and addressing market stability issues, Commercial will continue, where necessary, to lead on the co-ordination and oversight of short-term national issues, e.g. toxicology casework capability, where it will provide advice to FCN members and the FCN community on managing market and user demands.



#### Knowledge

Achieving a coherent and consistent approach to commercial management and being able to develop a proactive and sustainable forensic supply chain will only be achieved with access to good quality and up-to-date knowledge, advice and guidance.

#### Commercial will therefore:

- provide knowledge, advice and guidance to FCN members on all forensic science commercial management matters and will also provide capability lead advice and guidance to the NPCC Long-Term Forensic Market Strategy Board (and other portfolio groups / boards as required);
- support and advise on strategic impact assessments to reflect on the wider market

- impact of insourcing or outsourcing plans;
- · work closely with contract managers and commercial staff in the FCN community and wider law enforcement, including the National Commercial Board, appropriate category leads and the proposed new Police Commercial Organisation to enable advice and guidance to be developed and shared as widely as possible for the benefit of FCN members;
- offer contract and commercial awareness training to FCN members, subject to demand;
- develop a competency programme for commercial management of forensics suppliers;
- · work with the FCN community to develop and maintain an extensive **knowledge base**, which will be accessible by all FCN members and their staff and will contain, from a Commercial perspective, a very broad range of reference materials including model contracts, best practice guidance, standard specifications, standard terms and conditions, standard memoranda of understanding, process maps, reporting templates and BCDR plans;
- provide, within the knowledge base, a central capability for strategic lessons learnt to be captured, recorded and shared, so that appropriate improvements can be made and forensic outcomes maximised across the FCN community.



#### **Contracting and commercial**

This part of Commercial's offering is primarily designed to help the FCN community optimise the commercial / contract landscape and harness the community's collective efforts in consolidating requirements and opportunities that would not be commercially viable or deliverable at a local level.

#### **Commercial will therefore:**

 provide appropriate requirements gathering and market analysis support and input to FCN members,

- together with a co-ordination role for finalising requirements, ensuring that they do not conflict with other aspects of the national landscape, and confirming market capability to meet them;
- work with the FCN community to develop an appropriate make / buy strategy and, where required, a procurement strategy, making sure that it complements the broader national landscape and the pipeline of forthcoming procurements;
- where it is agreed that
  a national contract or
  framework would best serve
  the FCN community, act as a
  focus for this activity and work
  with the FCN community to
  determine how the national
  contract and / or framework is
  competed; how suppliers are
  selected; which contracting
  model is utilised; and how
  the resulting contract or
  framework is managed on an
  ongoing basis.

- Commercial will be instrumental in supporting Science's role in relation to **R&D** and innovation. Its role will include:
- assessing the potential impact of new technologies on existing FCN community contracts;
- establishing a process for academia and industry to work with the FCN that protects potential FCN Intellectual Property (IP);
- managing the commercial aspects of the process to choose academia and industry partners, including competition and selection criteria;
- contract management of the associated investments, including management of arising IP;
- ensuring that innovation generally is incentivised, R&D encouraged and rewarded; and IP exploited for the benefit of both the wider FCN community and for maintaining / developing a strong supply chain.

Commercial will also act as the **custodian of the FCN Section 22 Agreement** on behalf of all FCN members. The FCN Section 22A agreement is described in more detail in the chapter *For policing by policing*, but essentially all members of the FCN will have rights and responsibilities under the Section 22A Agreement. Commercial will have a role in ensuring that all members are fulfilling their responsibilities and that they do not feel that their rights are being compromised. Commercial will undertake regular performance reviews and be available, as the initial point of contact for members, if there are any concerns regarding the operation and / or interpretation of the Section 22A Agreement.

#### Commercial in action

The Commercial team is the most established of the core FCN capabilities, having seconded a number of experts from policing, as well as people from the former Home Office Forensic Marketplace Management team. It is therefore already having a significant impact upon the forensic marketplace. Three existing examples demonstrating the way that Commercial will operate are market stabilisation, including the potential impact of Brexit; digital forensics; and developing FCN operational services.



#### Case Study: forensic market stabilisation and addressing market failures

The Commercial team, working closely with both forces and providers, has been instrumental in achieving national agreement regarding the uplifting of contracts with traditional forensic service providers.



These uplifts were based on its detailed market analysis, financial assessments and recommendations. It also provided expert advice and support to the strategic Gold steering group, as well as leading the Silver tactical response and contingency planning. This, together with face-to-face negotiations with the main providers at a national level, has helped to stabilise the traditional forensic services market for the time being whilst a longer-term market strategy is developed and implemented. Work on the latter has already started, with Commercial now mapping the entire landscape of forensic service contracts between law enforcement agencies and their providers, as well as the various sub-contracting arrangements that constitute the broader supply chain.

In addition, Commercial is:

- supporting the current NPCC Silver Group work developing contingency plans in case of future supplier insolvency or market exit;
- supporting the Randox Gold and Silver Groups and NPCC Toxicology Capacity and Forensic Telecommunications
   Services Silver Groups with their strategic marketplace approach;
- supporting the updating of the forensics market place risk register;
- · reviewing the forensic services supply chain for potential Brexit impacts and working with suppliers to ensure that sufficient contingency planning is taking place to mitigate delays to inbound supplies resulting from the United Kingdom exiting the European Union.

## Case Study: digital forensics

Commercial is working closely with the NPCC Long-Term Forensic Market Strategy Board to develop a long-term marketplace strategy for traditional and digital forensics. The ultimate aim is to establish a single law enforcement voice to the market.



To ensure that this strategy is built upon solid foundations, Commercial is currently helping to shape the commercial aspects of the forthcoming capability maturity model exercise for digital forensics, which will capture a robust baseline of law enforcement / supplier contractual relationships.

In addition, Commercial is currently supporting the collaborative procurement of mobile device data extraction and reporting solutions.

Commercial has been carrying out research and liaising with forces and providers in relation to the digital forensic services marketplace to develop guidance and potential options in the event of a quality issue occurring in this marketplace.

In due course, it will also support the market strategy and procurement of new digital forensic capabilities emanating from Science e.g. the automated mass ingestion and remote search and review capabilities case study described in the Science chapter.

# Case Study: developing FCN operational services

As set out in the following Operations chapter, the Transforming Forensics Programme is developing an ICT platform and a range of new capabilities to support the FCN.



To support this, Commercial is developing national model document sets; guidance for practitioners within the FCN community and contract / service management protocols for working with third parties, such as the Police ICT Company and other key service providers. Commercial is also now managing the contracts with the Transforming Forensics Programme's development suppliers and extending them, as appropriate, to cover DevOps and cloud hosting capabilities.



FCN ICT platform and Technical

**Design Authority** 

· Secure platform

· Digital workflow &

· Portal & mobile app access

· Local / national system

· ISO-compliant auditing\*

· Digital storage

prioritisation

integration

· Design Authority

· Elastic search\*

Exhibit tracking\*Forensic case & records

management\*

#### **Specialist tools**

#### & capabilities

- Scene data capture, annotation and transmission
- Forensic data enhancement and comparison
- · Forensic report generation
- · Closed set searching\*
- Developed forensic intelligence\*



Products and services:

#### Brokering & service management

- Service brokering
- Prioritisation and load balancing
- · Trouble-shooting
- · Service and performance management
- · Business and management information

\*Items are either totally or partially dependent upon continued Transforming Forensics Programme funding beyond April 2020



#### **Business change**

- · Platform onboarding
- · Process improvement
- Capability readiness and adoption
- · New operating models
- · Account management

#### Operations

#### Mission

Operations' mission, on behalf of the FCN community, is:

"To maximise resilience and effectiveness through the design, introduction and maintenance of new ICT platforms, tools, operating models and business change support."

This will be crucial in helping the FCN community meet the quality and accreditation, pace of technological change / increasing demand and cohesive forensic science landscape challenges highlighted in the previous section.

To achieve this mission, Operations will provide products and services to the FCN community under the following four service headings and as described in more detail in the following paragraphs.



#### **FCN ICT platform and Technical Design Authority**

and should therefore be regarded as intended future capabilities.

Operations' ultimate aim is to enable the FCN community to provide law enforcement with an efficient, effective, load-balanced 'national grid' of streamlined, digitised forensic science capabilities, with each one operating to consistently high levels of quality and assurance. This will help provide interoperability, support and resilience to all members at times of high demand or unforeseen, increased forensic requirements, as recently experienced in Greater Manchester Police and the Metropolitan Police Service.

#### To achieve this, Operations will:

 provide a secure networking platform, which will enable
 FCN members to share workload and increase overall resilience - to avoid duplication and maximise law enforcement investment, the FCN platform will leverage and extend work done by the Home Office and other NPCC-sponsored programmes to develop reusable, secure cloud-based services for immigration, law enforcement, and biometrics;

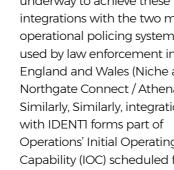
- use and maintain tried and tested infrastructure, coupled with proven designs to manage OFFICIAL-SENSITIVE data in the cloud, including:
- cost-effective storage and computing;
- best-of-breed secure networking and auditing products;

- containerisation technology to enable rapid builds and scalability on demand;
- architect the FCN platform to integrate with other police cloud services as they become available, such as for single sign-on via the National Enabling Programme (NEP)-provided Azure Active Directory;
- provide secure, accredited cloud-based digital storage for forensic exhibits, imagery and associated data, for forensic units that wish to migrate from local storage. For those that don't, FCN applications will also work with local data stores. The Transforming Forensics Programme is working closely with the Home Office and

Digital Policing Programme to ensure alignment with law enforcement's overall digital asset management capabilities. The FCN platform will be fully compliant with Management of Police Information (MOPI) and forensic science-related legislative requirements;

- · provide, as one of the platform's core capabilities, digital business process management, including workflow, tasking, and prioritisation of work to:
- process the receipt of digitally transmitted crime scene data, ready for subsequent forensic activity;
- automatically prioritise and route forensic case work<sup>12</sup> across the FCN using digital workflow and a THRIVE<sup>13</sup> or similarly agreed methodology';
- load balance forensic case work based upon available capacity in different FCN bureaux at different times;
- enable process standardisation, thereby simplifying accreditation;

- provide a user-friendly browser-based portal and mobile application access, so that practitioners from right across the FCN community can access the information and specialist tools and digital workflows they need to perform their roles effectively;
- · provide integration with a range of local and national systems, ranging from local criminal case and evidence management systems to national capabilities such as IDENTI (to extract suspect tenprints for comparison and integrate with automated searches and matching) and NLEDS (to provide forensic links in the POLE model). This will be an evolving process and integration is expected to be via simple linkages in the first instance. Over time, however, the plan is to make these integrations as seamless as possible, so that a forensic science practitioner can fulfil most, if not all, of their tasks through the FCN platform, with information also being accessible through FCN
- members' operational crime systems using appropriate application programming interfaces (APIs). Work is already underway to achieve these integrations with the two main operational policing systems used by law enforcement in England and Wales (Niche and Northgate Connect / Athena). Similarly, Similarly, integration Operations' Initial Operating Capability (IOC) scheduled for 1st April 2020;
- · act as an intelligent customer, when interacting with technical programmes such as HOB, so that the FCN community's interests are represented effectively and developed accordingly
- **Authority** to manage the evolution of the platform's architecture and technical services, according to principles such as: building with end users, retaining police ownership, using best-of-breed open source components and security-



national technical capabilities

· maintain a Technical Design



Over time the plan is to make integrations as seamless as possible, so that a forensic science practitioner can fulfil their tasks through the FCN platform, with information also being accessible through FCN members' operational crime systems

#### in-depth etc. to ensure that the platform is able to extend its services14 to new areas including digital forensics;

· design the platform to provide ISO-compliant auditing capabilities. The ultimate aim is for every activity carried out, either directly by forensic science staff or as part of an automated forensic science process, to be tracked and generate a full audit trail report from initial capture / recovery through to exhibit analysis and reporting. This capability will be implemented incrementally as different forensic science

capabilities begin to leverage the platform. It will give users the tools to capture their own contemporaneous notes and provide auditors with the ability to search across all audited records.

In time, and dependent upon continuing investment from the Police Transformation Fund or similar funding sources, Operations plans to:

· offer comprehensive tracking of all forensic evidence and exhibits e.g. physical location, moves and uses etc;

- · provide powerful elastic search capabilities to make it easy for users to locate and access items of interest, for example, guidance in the knowledge base or within Standard Operating Procedure (SOP) documents:
- · offer FCN members a new national forensic case and records management solution to replace local forensic case management systems altogether.



#### **Specialist tools and capabilities**

The Transforming Forensics Programme is currently working with the FCN community, the Police ICT Company and selected suppliers to develop a number of specialist tools and capabilities for delivery through the FCN platform.

Operations will support these capabilities, which in the short term will include:

#### Scene data capture, annotation and transmission

- · WiFi-enabled cameras, either via WiFi SD cards or through new cameras with built-in WiFi;
- · an application or set of applications to manage the transfer of images from the camera and to enable the CSI to add annotations and notes:
- · tools for the CSI to manipulate images into a storyboard to

help investigators and forensic examiners understand the crime scene:

· infrastructure to enable the secure transfer, in real time, of fingerprint and crime scene images via the FCN platform for identification by a fingerprint examiner either locally or in any of the fingerprint identification bureaux within the FCN.

#### Digital tools for forensic analysis and examination

- · web-based tools to analyse and compare marks and prints;
- · web-based access to all data required for fingerprint comparison e.g. national tenprint collections, case marks and contextual data;
- · the ability to produce automated practitioner notes during ACE-V (Analysis,

- Comparison, Evaluation - Verification) activities, conforming to accreditation guidelines through the use of a digital examination tool;
- · the provision of a tenprint export capability, enabling real time on-screen comparison as part of shared suspect checking activities;
- · the ability to share fingerprint examination techniques.

#### Forensic report generation

· the ability to generate standardised Streamlined Forensic Reports (SFRs) initially on fingerprint outcomes but to be extended to other forensic capabilities over time.

In the longer term, and dependent upon continuing investment from the Police Transformation Fund and / or

<sup>&</sup>lt;sup>12</sup> Initially fingerprints and subject to individual FCN member agreement as to how and where their caseload is routed.

<sup>&</sup>lt;sup>15</sup>Threat, Harm, Risk, Investigation opportunities, Vulnerability of the victim and Engagement level required to resolve the issue.

<sup>14</sup> Many police systems struggle to grow and become increasingly expensive to change due to their 'monolithic' single database architecture and vendor lock-in. The FCN platform design uses a composition of components called 'microservices' that can be reused as well as replaced. This allows new services to be added from different vendors, or open source, without change or risk to the whole system. Instead, the platform supports change with core services such as comprehensive audit and management of evidence etc. This removes the complexity of developing specifically for the police and therefore opens up the marketplace to innovative new companies.

other similar funding sources, Operations plans to work with HOB and other national programmes to be able to offer further specialist tools and capabilities, such as:

#### Closed set searching and other productivity / performance enhancements<sup>15</sup> including:

· integration with an IDENTI orthogonal matcher to

- automate large amounts of comparison work in major incidents and crimes (closed set searching), thereby massively reducing the time needed to find hits and respond;
- · increasingly automated fingerprint activity, making optimised use of the new IDENTI strategic matcher;
- · automatic uploading of data to IDENTI, replacing current manual entry. Enhanced forensic intelligence
- · the development of enhanced forensic intelligence opportunities by being able to search across all the data sources available through the FCN ICT platform.

issues, and continuously improve services and processes.

Members can also be reassured that the whole FCN operation will comply with ITIL<sup>16</sup> best practice e.g. incident logging, problem tracking through to resolution and proactive

service monitoring. The FCN platform will have a dedicated ICT and Information Assurance (IA) support team to provide effective monitoring of security issues, patching and user **notifications** etc. The platform will also log system audit data to either the National

Management Centre being established by the National Enablers Programme or the Home Office Cyber Security Operations Centre to provide review against the latest threat databases.



#### **Brokering and service management**

As explained in the chapter entitled A community of forensic excellence, the FCN is designed to enable a truly networked policing model, where:

- · members are able to share workload and expertise across the network without having to move the people providing the services;
- · forensic evidence is digitised whenever feasible and as early in the process as possible, to enable sharing in real time;
- · results are provided both as digitised reports and as data in a standardised format;
- · members have the choice and control over what delivery capacity they supply to or leverage from the network.

Some of the capabilities described earlier in this chapter will enable workload to be routed and prioritised automatically. However, this will only happen where FCN

members have chosen that as their preferred way of working. Where FCN members prefer a less automated approach, or where automated capabilities are still in development,

Operations will broker services between different FCN members, based upon demand and capacity and taking into

account each individual FCN member's wishes. For example, one FCN member might only wish to export work to another FCN member when it has a particular surge in demand. Another might initially only wish to export work to another FCN member if it is within its policing region. Although the ultimate aspiration is to achieve a fully optimised network, where forensic caseload is routed to the FCN member best equipped to deal with it at the time, the FCN brokering service will enable individual members' wishes to be met in as efficient a way as possible and for the network to

#### Operations will:

- · provide comprehensive service management information and dashboards that will highlight bottlenecks and identify where work could be expedited more quickly by another part of the network;
- · take a proactive approach in liaising with FCN members to re-assign or re-prioritise work, where there are clear operational benefits in doing so and members are happy for this load balancing to take
- · use business intelligence to measure and report on service performance against Service Level Agreements (SLAs) and Key Performance Indicators (KPIs) and will make this information available regularly
- · use this business intelligence to trouble-shoot problems,

- to FCN members;
- analyse the root cause of

#### **Business change**

New capabilities, of course, will only deliver their intended benefits if they are introduced effectively. In the short term, most of the FCN's business change capacity will continue to be funded by the Transforming Forensics Programme since it is an integral part of the project budgets creating each new capability.

Operations will, however, provide FCN members with a modest but ongoing level of

business change and account management support. This will include support:

- · as they onboard onto the FCN ICT platform, including communications material, readiness checklists and onsite assistance, as required;
- · as they adopt new FCN capabilities, building upon the toolkits described in the earlier chapter on Science;
- · as they adopt new process improvements or operating models introduced as part of the FCN;
- · generally, as part of the FCN's ongoing commitment to meeting members' needs.

#### Operations in action

Operations will only officially come into being when the FCN platform goes live and starts to launch the various new capabilities described earlier in this chapter. However, some of Operations' proposed business as usual services are currently being delivered through the Transforming Forensics Programme and are already having a significant impact. Three existing examples demonstrating the way that Operations will operate are fingerprints, digital forensics and the work of the current business transition team.



evolve as confidence grows in

its capabilities.

To help optimise performance,

<sup>&</sup>lt;sup>16</sup> ITIL - Information Technology Infrastructure Library

<sup>15</sup> Joint funding bid currently being progressed by the Transforming Forensics and HOB Programmes as part of a broader 2025 Fingerprints Capability Roadmap.

#### Case Study: fingerprints

Earlier in this chapter we described the numerous new specialist tools and capabilities that the FCN will introduce over the next few years.



Although many are being designed to support almost any forensic capability in the future, the initial focus for the majority is fingerprints, since this is one of the most advanced Transforming Forensics projects and is running in tandem with the Home Office Biometrics Programme to maximise forensic outcomes for policing.

Improving fingerprint capture and identification is, however, not just about introducing new capabilities. It is as much about introducing a new operating model, standardising processes, supporting adoption and delivering effective support to users.

Operations will be responsible for the whole of this lifecycle: from managing the transition of new capabilities into business as usual to managing workflows, improving processes, providing management information and resolving user issues relating to FCN services.

Most of the above will only become visible when the new services go live. However, the FCN is already helping to streamline

some operating models, building upon best practice already identified and implemented in some forces. The move from a threecheck to a two-check fingerprint verification model is one example: introduced with NPCC authority (see the chapter entitled For policing by policing) but updated through Transforming Forensics / FCN research, analysis, validation and business change support. A second, scheduled for later this summer, will see the introduction and rollout of a decision framework to help forensic leaders reduce demand. A third, scheduled for later this year, will see the release of a standardised end-to-end fingerprint process as a basis to develop the future technical solutions.

These, of course, are only a few steps towards a streamlined, networked future digital fingerprinting operating model. Within the next three years, the FCN is seeking to achieve the following scale of transformation across all its members' fingerprint identification capabilities (see pages 62-63).

# Case Study: digital forensics

In the previous three chapters, we have explained how Science and Quality will support proof of concept trials and the subsequent deployment of new digital forensic capabilities; how Quality is supporting the creation of a national configuration authority, new validation packages and a catalogue of validated capabilities; and how Commercial is developing a digital forensics services / market place strategy and progressing the collaborative procurement of mobile device data extraction and reporting solutions.



Operations will, of course, support any of the new capabilities that are routed through the FCN ICT platform. However, Operations will also support any investment or restructuring decisions emanating from the current Transforming Forensics digital forensics business case, which is considering the best way for law enforcement to meet the huge challenges faced in this area of forensic science.

# Case Study: business transition and account management

Operations will be the business as usual home of many of the functions currently undertaken by the Transforming Forensics business transition team.

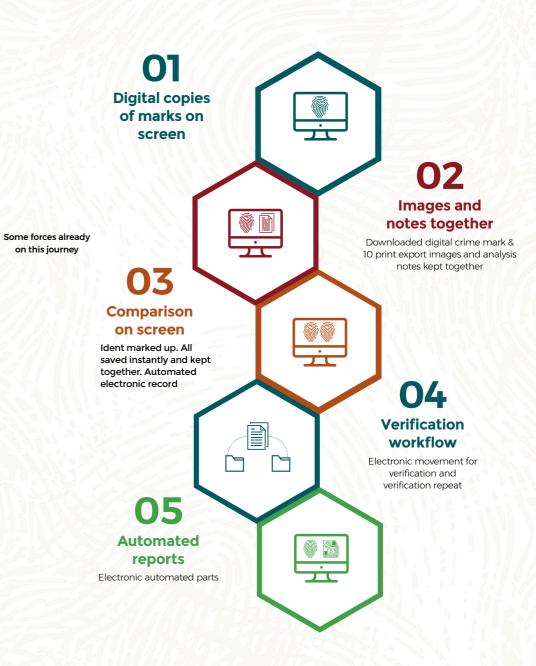


This will include regular liaison with FCN members (account management); support with ongoing capability maturity assessments; and support when adopting new FCN capabilities or making FCN-related process improvements.

#### Current

#### STAGE 1 Hard copy of lift or mark photographs from docket or printer STAGE 2 Retrieve hard copy tenprints from printer STAGE 3 or archive Magnifying glass with light STAGE 4 Initial notes handwritten STAGE 5 **Do Comparison** · Ident - Different ways of recording mark STAGE 6 up, pricking, comparator photography and cobex scanning photocopying, scan Ident 1 etc • Not ident - File hard copies away update CMS and all documents Photography of comparison - upload/ import/print image STAGE 7 Further physical copies sent for verification and repeat above ident steps STAGE 8 Update and report STAGE 9 File all docs and copies (pagination and contents)

#### **Future Digital**





# Implementation and timescales

In the previous four chapters we described each of the FCN's intended products and services. This chapter provides an indicative timetable for when those products and services will be available and how the FCN core team intends to cover the spectrum of forensic science capabilities.

The official go-live date for the FCN will be 1st April 2020. This is the point at which we expect the full FCN core team to be in place and start providing all of the services described in the previous chapters that are not directly dependent upon technical development. These are essentially all the services listed under Science, Quality and Commercial, together with the business change element of Operations.

Since we are gradually building the FCN's core capability over the course of this year, many of these services will also be available before 1st April 2020. Indeed, some services are available already, as illustrated in the 'in action' case study sections of the previous four chapters.

We are aiming to achieve ISO9001 certification for this core capability by April 2021.

Other elements of the FCN's product and service offering will be implemented incrementally, as new technical capabilities are developed. Furthermore, the FCN will evolve as it responds to new challenges and opportunities and is shaped by its members. Similarly, it will support more and more capabilities as they are delivered either by the Transforming Forensics Programme or by members of the FCN community themselves.

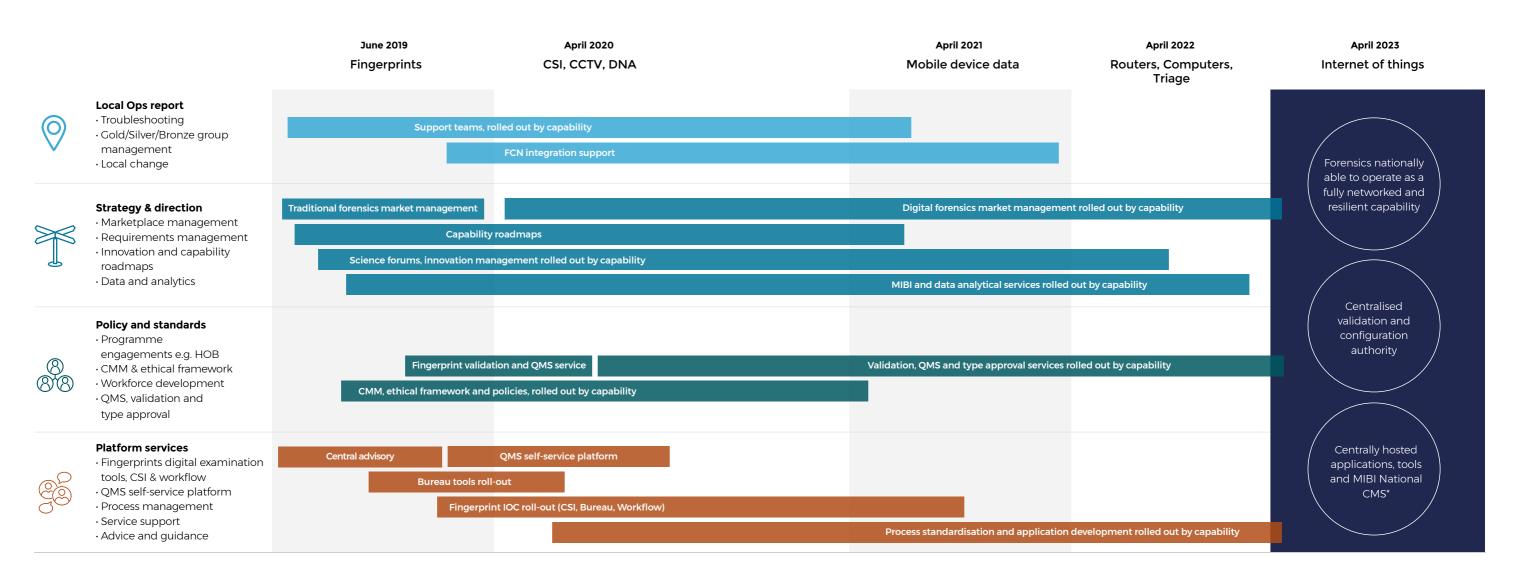
The diagram overleaf illustrates how we envisage the core FCN team supporting the broader community over the next few years, with each of the FCN's four pillars working together to:

- **✓** 
  - provide appropriate local operational support to FCN members in the form of troubleshooting teams, business change advice and FCN integration e.g. onboarding to the FCN platform and adoption of new capabilities;
- provide appropriate strategy and direction across the whole spectrum of forensic science capabilities, ranging from market management to innovation and capability development;
- improve policies and standards through the provision of appropriate quality management systems, validation services, and ethical framework and policy development;
- deliver enhanced forensic science processes and technical capabilities.

The breadth of forensic science and the scale of the challenges facing the FCN Community, however, necessitate an incremental approach.

The FCN core team will therefore focus upon forensic science capabilities in logical groups, starting, as it has, with some of the more traditional areas of forensic science but then rapidly extending its scope into the ever-expanding areas of digital forensic science.

As increasing numbers of forensic science capabilities are improved, standardised and integrated into the FCN network, the FCN will begin to realise its full potential. This is illustrated by the circles on the right of the diagram as the FCN community is able to achieve true resilience and economies of scale.



<sup>\*</sup> Management information, business intelligence and Case Management System

We will also be adopting an incremental approach for FCN member onboarding: initially for connection to the FCN ICT platform itself and then for each new capability released. This will ensure that we allow sufficient time to help prepare FCN members for adoption and have sufficient resources available to support local testing and help resolve any initial teething problems.





# Future direction and development

The FCN's future direction and development will, of course, ultimately be determined by us: its members.

However, we have ambitious plans for what could be achieved.

To give you a feel for what we have in mind, here are just a few of the capabilities we believe should be possible within the timescales of Policing Vision 2025 if we are successful in attracting sufficient capital investment - beyond those capabilities already set out in the preceding chapters on FCN products and services.

#### **Extending our digital workflow**

We will initially use our digital workflow for fingerprint identification bureaux and CSIs but the plan is to extend it to other capabilities, users and providers over time. We see great potential in extending it to include:

- digital forensics, with automation of activities to decrypt, filter and analyse data;
- all law enforcement forensic science activity, at a national scale, by leveraging the secure cloud and distributed processing of the FCN;
- investigators and the Crown Prosecution Service, so that they can make submissions and requests, as well as register an interest in viewing results;
- commercial forensic service providers (FSPs) so that the FCN can have greater control over outsourced forensic work through
- enhanced management information regarding volumes, fulfilment times, bottlenecks and overall service quality etc;
- commercial FSPs from a customer relationship management (CRM) system perspective to enable closer liaison and highlight emerging needs etc.

#### **Extending our capabilities through further system integration**

We see great potential in integrating the FCN platform with:

- other HOB services, i.e.
  beyond IDENTI, to automate
  a broader range of forensic
  workflows:
- the National Footwear

  Database to extend
  examination workflows to
  include footwear marks;
- other national systems and cloud services from the Digital Policing Portfolio (DPP) and the Home Office; including sharing forensic results as data with investigators, intelligence units and the judiciary.

#### Increasing our levels of expertise and quality assurance

As the FCN grows and operating procedures are standardised, we want to be able to offer our members tools and information that help them allocate and quality assure their forensic science work more effectively.

#### Potential capabilities include:

- extending and enriching our quality management systems and knowledge bases to include all digital forensic capabilities;
- creating an online
  learning environment
  for all forensic science
  capabilities, linked to the
  skills required by different
  roles and the results of
  competency assessments;
- trend analysis of performance and adherence to standard operating procedures and best practice;
- role and skill-based allocation of work, linked to user performance monitoring and training;
- CSI mobile access to greater support and knowledge for scene risk assessment, setting

- crime scene strategy and extracting data from devices at crime scenes etc.;
- comprehensive tracking of all assets / equipment in use within forensics and linking it to maintenance and quality check schedules, inspection reports, certificates and replacements.



#### Enhancing our forensic intelligence

We see enormous forensic intelligence opportunities from the FCN, ranging from the relatively simple to the potentially more complex.

At the simpler end of the spectrum, we see short term opportunities in fingerprints by being able to combine our digital workflow and the new IDENTI strategic matcher to undertake a controlled and staged review of unidentified marks in IDENTI. Since our systems will know how much spare capacity each

of our member fingerprint identification bureaux has at any one time, we will be able to orchestrate this work over a period of time, routing it to the most appropriate bureau. Each newly identified IDENTI mark will become one further item of forensic intelligence and potentially the opportunity to identify another offender.

At the more complex end of the spectrum, and assuming that we are successful in introducing a new national forensic case and records management solution as described in our chapter on Operations, we should be able to derive extensive forensic intelligence by using the FCN platform's highly elastic search capabilities and integration with other national datasets e.g.
National Law Enforcement Data Services (NLEDS).

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# The FCN Club

#### This section sets out

- · the cost and benefits of being a member;
- · how the FCN will be managed and governed;
- · how to become a member and what membership of the FCN entails.





#### The table and pie chart below illustrate the overall composition of the proposed FCN budget.

Provisional FCN Operating Budget	£'000
Leadership and Direction	300
Science	600
Quality	700
Commercial	800
Operations	900
Bought-in Services	1,700
Corporate Services	500
Total	5,500





#### **Funding**

Both the Chief Constables'
Council and the Association
of Police and Crime
Commissioners (APCC) have
indicated a preference for
the FCN to be funded by the
Home Office making a direct
allocation to the FCN from
the overall police funding
settlement. The Home Office is
therefore intending to include
this £5.5 million within its
spending review submission to
the Treasury later this year.

If the proposed reallocation approach is not agreed, we will ask members to pay a membership contribution, proportionate to their Home Office grant allocations (or equivalent), in the same way they do already for similar collaborative arrangements like the NPCC or NPoCC. If that is the case, contribution levels will always be crystallised in advance of the start of each financial year so that members or prospective members can

make an informed decision about participation.

Should the FCN be successful in attracting additional members as it develops, the FCN's governance board will determine, in consultation with the FCN's existing members, whether existing members' contributions should be reduced accordingly, or if the FCN budget should be increased to deliver additional products and services.

<sup>&</sup>lt;sup>17</sup> The Initial Operating Capability covers all the products and services set out in this prospectus, except those that are either marked with an \* within the Operations chapter or are referenced as potential future capabilities in the Future Direction and Development chapter.



#### **Additional products and services**

Although most of the FCN's products and services will be covered by the core membership contribution, there are two exceptions.

The first is where the FCN is effectively acting as a broker for one FCN member to access services from another member e.g. one FCN member routing part of its fingerprint identification requirements through the FCN platform to be fulfilled by a bureau owned and managed by another FCN member or group of FCN members. In this scenario, which is expected to become commonplace as the FCN matures, the cost of the networking platform will be covered by the core membership contribution but the cost of the actual

service fulfilment will not. The FCN member requesting the service will effectively pay the FCN member that provided the service. To minimise the administrative burden associated with this and avoid a situation where every FCN member might have to make payments to or receive payments from the other FCN members individually, the FCN will also calculate the net settlement due between FCN members and handle the associated settlement process. The FCN will agree with its members a standard schedule of fees for services of this nature before the beginning of each financial year, so that members can plan with confidence. The standard schedule of fees will incorporate the cost of service fulfilment plus a small element

to cover the FCN's costs of ensuring quality of service, resolving any bottlenecks and managing the financial settlement process.

The second, which is expected to be much less common, is where a FCN member (or group of members) commissions the core FCN team to provide a bespoke service that is not applicable to the whole membership and the FCN has to find or commission additional resources in order to fulfil the service. In this scenario, the FCN core team will agree a fee with the requesting member that covers all the associated costs and therefore does not create a financial liability that would otherwise fall to the broader membership.

In general terms, however, we would expect every member to accrue the following benefits from its membership.

#### **Benefit type**

#### **Avoid cash spend**

Members will make savings on accreditation (both internal and external costs), maintaining local systems and running some local procurement exercises etc. They should also be able to reduce local overtime and other costs by leveraging other FCN community capacity at times of peak demand or when their local capabilities are unavailable e.g. out of hours. Alternatively, they should be able to offset some of their existing costs by providing surplus capacity to others within the FCN community.

#### **Productivity gains**

Members will make productivity gains through the use of specialist FCN tools and capabilities. In the first instance. these will be specialist fingerprint digital capture, transmission and ACE-V capabilities but will expand as the FCN develops. In addition, members will make productivity gains through adoption of new FCN operating models, digital workflows and standard operating procedures.

#### **Reduced unfunded risk**

The unfunded risk associated with either market failure or a lack of accreditation is extremely high. Members will reduce this risk significantly through the FCN's strategic market management and 'validate once; verify many' approaches. In addition, should any member's local capability fail to be accredited for any reason, it will be able to rely upon core FCN team support and accredited capacity from elsewhere within the FCN community.

#### **Economics of scale**

Members will benefit from significant economies of scale in a broad range of areas including: trialling, validating and introducing new capabilities; recruitment and retention; knowledge and quality management; professional development; commercial and contracting; and capabilities such as forensic digital asset management.

#### Reduced operational risk

Members will be able to reduce their operational risk by reducing the likelihood of service interruption due to market failure or lack of accreditation and service delays due to local backlogs or sub-optimal processes.

#### Reduced reputational risk

Members will be able to reduce reputational risk by improving their overall forensic capabilities and alignment with fellow FCN members.

#### Other non-financial benefits

Members will also enjoy the many strategic benefits the FCN will bring including strategic sponsorship from the NPCC, APCC, Home Office and Ministry of Justice; its role as a strong advocate and intelligent customer; increased research and development funding; access to the latest international research and best practice; as well as tailored account management and business change support at a local level.



#### Benefits and return on investment

We recognise that every prospective FCN member will have a different baseline for its forensic science provision and this is why the Transforming Forensics Programme is currently working on producing individual illustrations for each police force or law enforcement agency, showing how both the Transforming Forensics Programme and the FCN will benefit them. These are scheduled to be completed by the end of August.

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18 Based upon figures published in The Police Grant Report (England and Wales) - section 3.1 - column f)

Pillar	Service Headings	Avoided cash spend £'000 p.a.	Productivity gains £'000 p.a.	Reduced unfunded risk £'000 p.a.	Economies of scale £'000 p.a.	Reduced operational risk	Reduced reputational risk	Other non- financial benefits
Science	Strategy, policy, advocacy							<b>✓</b>
	Capabilities, R&D, innovation				<b>✓</b>			<b>✓</b>
	Workforce				<b>✓</b>	<b>✓</b>		<b>✓</b>
	Knowledge				<b>~</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Quality	Standards			<b>✓</b>	<b>✓</b>	<b>✓</b>		<b>✓</b>
Quality	Validation	<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	
	Accredation	<b>✓</b>		<b>✓</b>		<b>✓</b>	<b>✓</b>	
<u> </u>	Knowledge				<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Commercial	Strategic market management				<b>✓</b>	<b>✓</b>		<b>✓</b>
	Supplier performance and stability	<b>✓</b>		<b>✓</b>	<b>✓</b>	<b>✓</b>		
<u>;=</u>	Knowledge				<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Contracting and commercial	<b>✓</b>			<b>✓</b>	<b>✓</b>	<b>✓</b>	
Operations	FCN ICT Platform	<b>✓</b>	<b>✓</b>		<b>✓</b>	<b>✓</b>		<b>✓</b>
Operations _	Specialist tools and capabilities		<b>✓</b>					<b>✓</b>
(i)	Brokerage and service management	<b>✓</b>			<b>✓</b>	<b>✓</b>	<b>✓</b>	
	Business change		<b>✓</b>			<b>✓</b>		<b>~</b>
	Estimated value for mid-size force	75	150	25	215 —	Total e	stimated value of ben	efits <b>465</b>



It is difficult to put a figure on all of these benefits. However, to illustrate the general level of benefit and return on investment a member might expect from the FCN, we have translated some of the benefits above into figures and modelled them on a mid-size police force with a total grant allocation of £173 million in 2019/20 (essentially the size of Essex Police).

A police force of this size would contribute approximately £123,000 to the FCN per annum and its return on investment would resemble the above.

In other words, excluding all the non-financial benefits a mid-size force could expect to get from the FCN, it could also, we believe, expect financial benefits of approximately £465,000 per annum in return for its £123,000 per annum investment i.e. almost £4 for every £1 invested<sup>19</sup>.

However, this only tells part of the story. The FCN ICT platform, coupled with Operations' brokerage service, will enable FCN members to import and export forensic workload to even out peaks and troughs.

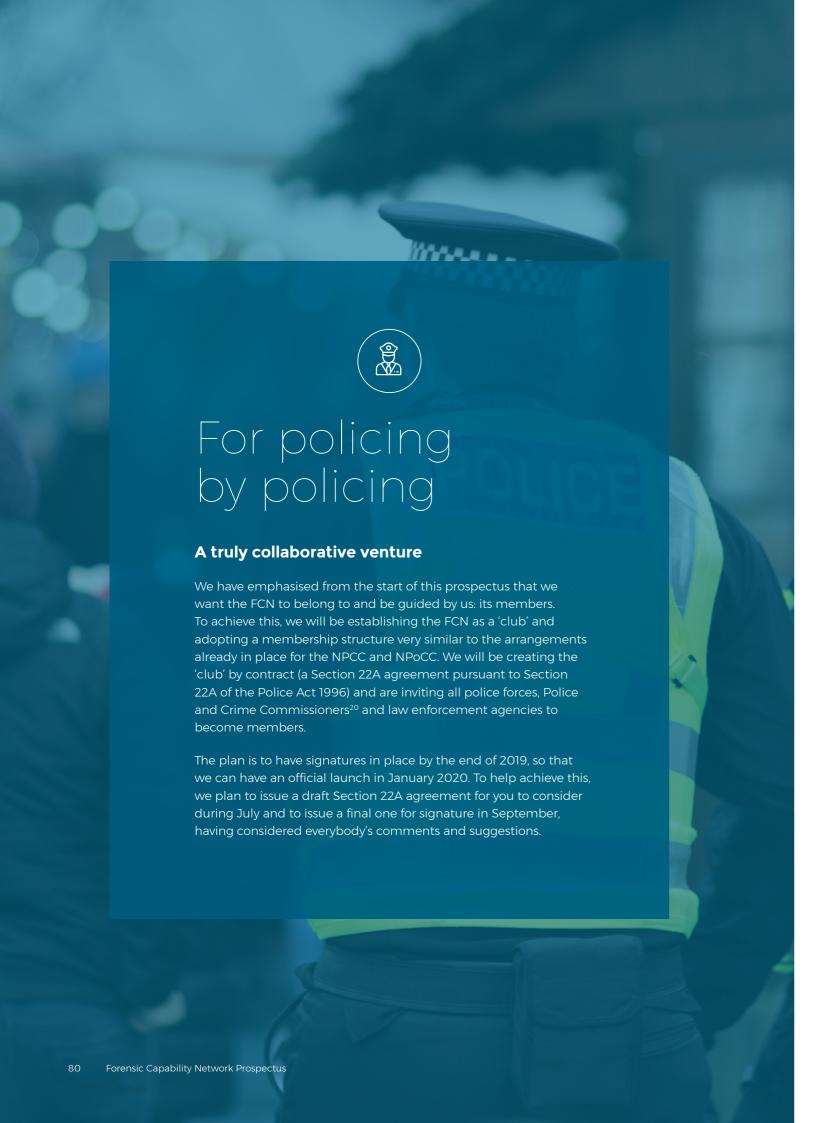
Furthermore, the internal market that will be created, coupled with the introduction of more efficient standard operating procedures, will make the whole network much more efficient. The Transforming Forensics Programme's business case for fingerprints identified significant differences in the costs of fingerprint bureaux throughout England and Wales and found that, if all fingerprint bureaux were

able to operate at just the average cost of the most efficient currently, policing could save £5 million per annum on a current cost base of £19 million per annum (26%). If our model mid-size police force were also able to generate that level of savings, it would equate to a further £112,000 per annum – almost the value of its entire annual membership contribution.

But this again **only reflects the FCN's initial potential**. The FCN is designed to evolve, guided by its members and reaping the rewards of continuing Transforming Forensics Programme investment and the ongoing work of the FCN core team. With Science helping

the FCN community maximise external investment and target research and development so that the best ideas are brought all the way from concept to implementation, and with Operations supporting members to deploy new capabilities, introduce new operating models and share workload, the return on members' investment is only likely to get even better as the FCN evolves. Putting it another way, if introducing the FCN has the potential to save £5 million a year for just fingerprints, just imagine the potential across all forensic science capabilities, especially in the ever-expanding field of digital forensic science.

<sup>&</sup>lt;sup>19</sup>£4 return on each £1 invested expected from approximately the 3rd full year of operation.



#### A club supported by a host organisation

As with the NPCC, the FCN will not be a legal entity in its own right and will therefore rely upon having one of its members acting as a host organisation. The host, which will be appointed by the membership, will be responsible for entering into contracts; acquiring, holding and disposing of assets; and employing staff on behalf of the club.

It will also be responsible for arranging appropriate insurance for the club's activities and providing, on a not-for-profit basis, the requisite corporate support services, for example communications, HR, finance, legal and estates.

Dorset Police and Dorset
Office of the Police and Crime
Commissioner (OPCC) are currently
acting as the FCN's interim hosts

and have offered to continue to fulfil these roles until the FCN is firmly established. The plan, subject to member endorsement, is to ratify Dorset Police and Dorset OPCC as the FCN host organisations until the end of March 2022. At that point, Dorset Police, Dorset OPCC and FCN members can decide whether new host organisations should be appointed.

#### An integral part of policing's overall governance

As highlighted in our FCN products and services section, one of the FCN core team's key roles is to support the NPCC Forensics Portfolio Board and its sub-portfolios by providing the capacity and expertise they need to be able to progress their strategic

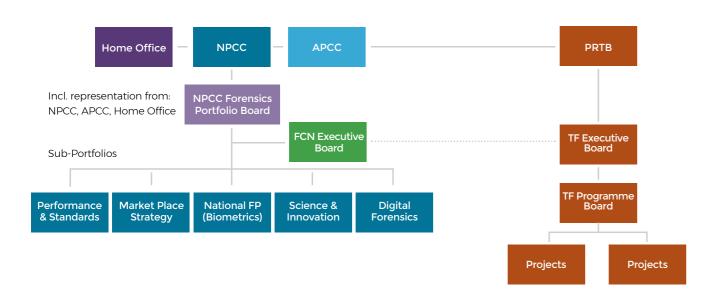
agendas. This lack of capacity and expertise was a recurring theme in the joint Home Office, APCC and NPCC review of forensic science published in July 2018. It also featured strongly in the Police Foundation's short evidence review<sup>21</sup> on the governance of

specialist policing capabilities, which highlighted the value that expert capability leads could bring to police force chief officers trying to balance the strategic development of significant national portfolios with their local policing responsibilities.

<sup>&</sup>lt;sup>20</sup> And their equivalents for police forces and law enforcement agencies that have different governance mechanisms.

<sup>&</sup>lt;sup>21</sup> Review of Supra Force Specialist Policing Capabilities - Police Foundation - December 2016 - Commissioned by the governance working group of the Specialist Capabilities Board.

With that in mind and in order to ensure complete alignment between FCN governance and that of forensic science more broadly, Policing Vision 2025 and the Home Office's Forensic Science Strategy, we are proposing the following overarching governance arrangements for the FCN:



The FCN will have its own Executive Board, which will be responsible for shaping and implementing the FCN's strategic delivery plan. This strategic delivery plan will be designed to support the work of the NPCC Forensics Portfolio Board and its sub-portfolios on the one hand, and the work of the Police Reform and Transformation Board (PRTB) operating through the Transforming Forensics Programme, on the other. This

will ensure alignment with all the strategic drivers highlighted above.

We are still working on the proposed composition of the FCN Executive Board and will publish this as part of the draft Section 22A agreement we will be issuing in July 2019. However, our key design principles include ensuring that FCN governance:

- incorporates an appropriate crosssection of representation from Chief Constables, PCCs and other members:
- provides clear lines of accountability and sufficient transparency to allow effective scrutiny of FCN performance by all members;
- enables a truly networked policing model, as described by the Specialist Capabilities Programme.<sup>22</sup>

We are still in the process of recruiting a permanent senior management team. However, as many of you will know from the recent series of regional FCN events, we have been successful in attracting three interim FCN pillar Leads, all of whom have an enviable track record of delivery in policing.

Kirsty Faulkner, our Interim Science and Operations Lead, is currently the Head of FINDS (Forensic Information Databases Service) and has been responsible for the successful delivery of a number of high profile national policing change projects, including the seamless transition of National Database Unit services from the NPIA to the Home Office: implementation of a database to support the Missing Persons Bureau and the redesign of a broad range of national business processes to comply with the Protection of Freedoms Act. Prior to joining policing, Kirsty was a DNA scientist and contract manager for the Forensic Science Service for 13 years.

Deborah Pendry, our Interim Quality Lead, is currently the Head of Quality for the East Midlands Specialist Operation Unit for forensic science. She has been driving forward the quality agenda in policing for the last 12 years and has been transforming the standards and accreditation, training, performance analysis and change landscape across the East Midlands' forensic science capabilities. Debbie also brings extensive quality management experience from other industries including automotive, aerospace and rail.

Sue Moffatt, our Interim Commercial Lead, is a hugely experienced Commercial and Procurement Director, who has held Director positions in criminal justice and central government (Welsh Government, NPIA, Criminal Records Bureau and Home Office) for over 15 years. Prior to joining the Transforming Forensic Programme, Sue was responsible for setting up and running the National Procurement Service for Wales. Sue also brings significant prior experience from the IT and business process outsourcing industries.

We are still crystallising our overall FCN organisation structure as we determine which of the advertised products and services it makes most sense to deliver directly and which would be better commissioned from third parties e.g. the Police ICT Company.

We will be recruiting in earnest over the next few months to ensure that we are up to capacity for our official go-live date of 1st April 2020.



Being able to attract this quality of candidate to interim positions augurs very well for the future and we are confident that our permanent senior management team, and indeed all FCN roles, will reflect this blend of extensive policing experience and insights from other industries.

Policing experience in strength and depth

<sup>&</sup>lt;sup>22</sup>The Specialist Capabilities Programme - Phase One report - October 2016

# Club membership To become FCN members, organisations will just need to sign the Section 22A agreement we will be issuing in September 2019, in July. This will entitle access to all the products and services set out responsibilities. We will set out all these details in the draft Section 22A agreement we are currently preparing and which we expect to be ready for consultation in July.

#### In essence though, each FCN member will have certain rights, including:

- a right to receive the products and services delivered by the FCN core team, subject to their meeting appropriate code of connection criteria for technical capabilities etc;
- a right to share in the fruits of FCN community innovation and IPR etc;
- a right to receive regular performance reports and financial accounts etc;
- a right to hold the FCN and its host organisation to account for FCN performance;
- a right to be represented on appropriate governance boards; to be consulted and, where appropriate, vote on matters affecting the membership;
- a right to a share of any financial surplus generated by the FCN.

#### Each FCN member will also have certain responsibilities, including:

- paying an annual membership contribution, if not reallocated from policing budgets, and meeting its share of any additional liabilities legitimately incurred by the FCN whilst a member;
- appointing a Single Point of Contact to act as its prime interface with the FCN;
- providing local demand, capacity and performance information, as needed for the FCN's efficient and effective operation;
- meeting minimum local compliance criteria, such as maintaining agreed standards of local quality management, complying with agreed information management procedures and using equipment and techniques validated by the FCN when accessing FCN services;
- adopting agreed standard operating procedures, as required to use the FCN's digital workflow and, in time, achieve accreditation as part of the FCN club;
- sharing local innovation and making IPR available to the FCN community as a whole;
- maintaining appropriate local insurance cover;
- notifying the FCN host of any potential claims against the FCN and co-operating with the FCN host organisation in handling such claims;
- co-operating with the host organisation in dealing with Freedom of Information and other similar requests;
- using the FCN ICT platform and agreed business rules when sharing forensic workload<sup>23</sup>;
- using the agreed dispute resolution procedures in the event of any dispute;
- taking into consideration the potential impact upon other FCN members and the community as a whole when making local decisions e.g. reducing local capacity or capability.

<sup>&</sup>lt;sup>21</sup>As set out in the Operations chapter, individual FCN members will retain control over what forensic caseload they choose to undertake locally or ask other FCN members to undertake on their behalf.

#### Never a better time

Public confidence in the criminal justice system is vital. And yet, with forensic science we can no longer take this for granted.

As highlighted by last year's joint Home Office, NPCC and APCC review of forensic science, "concerns relating to the issues of Randox Testing Services, the administration of Key Forensic Services and policing's perceived failure to prioritise accreditation of its own services were the rationale for a view amongst CJS stakeholders that the dispute of forensic evidence could become commonplace without change." Furthermore, at the time of the review, NPCC forensic portfolio leads did not feel they had access to the specialist resources they need in order to respond effectively.

More recently, the House of Lords Science and Technology Committee 'blueprint for change' publication deemed that "forensic science in England and Wales is in a state of crisis and must be reformed urgently" and highlighted that "an absence of highlevel leadership, a lack of funding and an insufficient level of research and development now means the UK is lagging behind others."

The Transforming Forensics
Programme is helping to alleviate this situation through the additional focus, investment and support it is bringing to forensic science. But to sustain these efforts and give policing a fighting chance of exploiting the opportunities and meeting the main challenges facing forensic science, we need a different approach.

#### In the Forensic Capability Network, we believe that we have found the right solution:

- a way to give effective support to NPCC portfolio leads; harmonise our collective efforts; maximise investment; transform our forensic science landscape and achieve a paradigm shift in both our individual and collective performance;
- a club that we can all own and develop in the way that makes most sense to

- us, as those responsible for delivering policing and law enforcement outcomes to our communities:
- a truly networked policing model that leaves Chief Constables and PCCs in control of what forensic science activity is undertaken and where, but creates the environment, by standardising operating

procedures and providing the requisite network, specialist tools, service management and support, that enables FCN members and the FCN community as a whole to maximise resources, resilience and effectiveness.

We are very excited about the FCN, as indeed are the Home

Office, NPCC and APCC, judging by the implementation plan they
published in April, in which the FCN (and the Transforming Forensics

Programme) are the focus of no fewer than eight of the 13 actions
designed to improve forensic science within the criminal justice
system and to help maintain public confidence in it.

<sup>&</sup>lt;sup>24</sup> Forensics Review - Review of the provision of forensic science to the criminal justice system in England and Wales (July 2018)

<sup>&</sup>lt;sup>25</sup> House of Lords Science and Technology Committee - Forensic science and the criminal justice system: a blueprint for change (1 May 2019)



To make the FCN a reality, we need your support. We hope to be able to welcome your organisation as one of our founding FCN members very soon.

#### Next steps

We are keen to receive your feedback on this proposal and encourage you to share your views with us through your usual NPCC regional contacts. This will help us to refine our plans and ensure that we create a FCN that works for all its members.

We plan to issue a draft FCN Section 22A agreement for you to consider in July. By doing this, we hope to obtain early feedback on any issues that might prove problematical, so that we can address them, together with feedback on our FCN proposal more generally, in a later draft.

If you have any questions in the meantime, you can email us at **contact@transformingforensics.co.uk**.

