Science and Technology Committee

The Science and Technology Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Government Office for Science and associated public bodies.

Current membership

Dr Roberta Blackman-Woods MP (Labour, City of Durham)
Victoria Borwick MP (Conservative, Kensington)
Stella Creasy MP (Labour, Co-op, Walthamstow)
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Graham Stringer MP (Labour, Blackley and Broughton)
Derek Thomas MP (Conservative, St Ives)
Matt Warman MP (Conservative, Boston and Skegness)

The following were also members of the committee during the parliament:

Nicola Blackwood MP (Conservative, Oxford West and Abingdon)
(Chair of the Committee until 19 July 2016)
Liz McInnes MP (Labour, Heywood and Middleton)
Valerie Vaz MP (Labour, Walsall South)
Daniel Zeichner MP (Labour, Cambridge)

Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the internet via www.parliament.uk.

Publication

Committee reports are published on the Committee’s website at www.parliament.uk/science and in print by Order of the House.

Evidence relating to this report is published on the relevant inquiry page of the Committee’s website.

Committee staff

The current staff of the Committee are: Simon Fiander (Clerk); Marsha David (Second Clerk); Dr Elizabeth Rough (Committee Specialist); Martin Smith (Committee Specialist); Darren Hackett (Senior Committee Assistant); Julie Storey (Committee Assistant); and Nick Davies (Media Officer).

Other staff during the inquiry: Phil Raymond (POST Fellow).
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Summary</strong></td>
<td>3</td>
</tr>
<tr>
<td>1 Background</td>
<td>4</td>
</tr>
<tr>
<td>Previous Committee reports</td>
<td>4</td>
</tr>
<tr>
<td>The Forensic Science Strategy and our own inquiry</td>
<td>6</td>
</tr>
<tr>
<td>2 Procurement in a declining market</td>
<td>8</td>
</tr>
<tr>
<td>A changing workload</td>
<td>8</td>
</tr>
<tr>
<td>Procurement approaches</td>
<td>9</td>
</tr>
<tr>
<td>3 Forensic science research</td>
<td>14</td>
</tr>
<tr>
<td>Silverman review</td>
<td>14</td>
</tr>
<tr>
<td>The Strategy</td>
<td>16</td>
</tr>
<tr>
<td>Funding</td>
<td>18</td>
</tr>
<tr>
<td>4 Standards and accreditation</td>
<td>19</td>
</tr>
<tr>
<td>Accreditation</td>
<td>19</td>
</tr>
<tr>
<td>Bias</td>
<td>21</td>
</tr>
<tr>
<td>Statutory powers for the Regulator</td>
<td>22</td>
</tr>
<tr>
<td>5 The strategy</td>
<td>25</td>
</tr>
<tr>
<td>A ‘national approach’</td>
<td>25</td>
</tr>
<tr>
<td>Biometrics and forensics</td>
<td>26</td>
</tr>
<tr>
<td>Oversight and governance</td>
<td>27</td>
</tr>
<tr>
<td>An incomplete strategy?</td>
<td>28</td>
</tr>
<tr>
<td>Consultation</td>
<td>28</td>
</tr>
<tr>
<td>Conclusions and recommendations</td>
<td>30</td>
</tr>
<tr>
<td>Annex: Visits to the Metropolitan Police Forensic Services and LGC Forensics</td>
<td>33</td>
</tr>
<tr>
<td>Formal Minutes</td>
<td>36</td>
</tr>
<tr>
<td>Witnesses</td>
<td>37</td>
</tr>
<tr>
<td>Published written evidence</td>
<td>38</td>
</tr>
<tr>
<td>List of Reports from the Committee during the current Parliament</td>
<td>39</td>
</tr>
</tbody>
</table>
Summary

In March 2016, the Home Office published its 'Forensic Science Strategy'. This was more than two years after the date originally promised to our predecessor Committee, and came without the 'Biometric Strategy' component that was originally planned.

The Strategy is vague about how the intended locally-negotiated non-standard procurement approach for police forces commissioning forensic services from the private sector will deliver the proposed 'more consistent national approach'. It also lacks detail on the possibility of a joint biometrics and forensics service which risks being taken forward without the benefit of a published Biometrics Strategy.

Together, these weaknesses raise the question of whether the Forensics Strategy is a strategy at all: It is missing a coherent vision for forensic services and a route-map to deliver it. The impression instead is of a plan to produce a Strategy. That impression also arises from the fact that 'scoping work' on key areas is still underway, and because of an evident failure to consult widely on the Strategy before its publication.

The Government should acknowledge that the Forensics Strategy is an incomplete document which leaves too many issues under-developed to constitute a coherent description of the Government's policy and direction in this important area. The Government should now aim, on the back of the hopefully imminent publication of its long-awaited Biometrics Strategy and the conclusion of the police's currently underway forensics 'scoping work', to present a revised 'draft Forensic Strategy' for a full public consultation.

In the meantime, the Government should make it clear that while some police forces may face challenges in securing accreditation of their forensic laboratories to the industry's standards by the deadlines set by the Forensic Services Regulator, they must do so. Statutory quality enforcement powers for the Regulator are essential, to ensure that she has sufficient levers to enforce compliance with quality standards by all forensics service providers. The nearly three years that have elapsed since the 2013 consultation on such powers for the Government finally to decide to go ahead, and only for it now to initiate a further internal consultation, and still without an identified legislative vehicle, inevitably leaves us with serious doubts about the Government's commitment to push ahead with this. The Government must before the end of the current 2016–17 Session bring forward the legislation necessary to give the Forensics Regulator the statutory powers needed to ensure accreditation and quality standards compliance.

There remains a pressing requirement for more forensics research, including into how well the science contributes to the criminal justice system. There is no mechanism for setting national forensic research priorities, and efforts to share data on identified research requirements, and on who is undertaking what research, are inadequate. The Home Office should press for a greater priority—and share of funding—to be given to forensics research. Any savings achieved from implementing the Forensics Strategy should not be wholly subsumed in general police budgets, but instead a significant proportion ring-fenced and used specifically to fund forensic science research needs.
1 Background

1. In March 2016, the Home Office published its Forensic Science Strategy\(^1\) for England and Wales.\(^2\) This was more than two years after the publication date originally promised following a 2011 inquiry by our predecessor Committee, and came without the 'Biometric Strategy' component that was originally planned.\(^3\)

Previous Committee reports

2. Our predecessor Science and Technology Committees had produced a number of reports on forensic science which, apart from the need for a Strategy, had examined a number of forensic science issues.

3. Their *Forensic science on trial* report in March 2005 recommended that a ‘Forensic Science Advisory Council’ be established to act as a regulator of the forensic services market and to provide independent advice to the Government.\(^4\) The Government was at that time consulting on the regulation of forensic science quality-assurance,\(^5\) and subsequently set up the Forensic Science Regulator in 2008.\(^6\) The Committee also examined the use of forensic evidence in court and called for better training of judges and lawyers in forensic evidence, and for improvement in the presentation of scientific and statistical evidence to juries.\(^7\)

4. In that report, two months before the end of the 2001–2005 Parliament, the Committee also looked at the implications of the then Government’s plan to develop the Forensic Science Service (FSS)—a trading fund since 1999—as a Government-owned company.\(^8\) In July 2011, however, another of our predecessor Committees examined the then planned closure of the FSS\(^9\) (the closure was subsequently completed in March 2012). The Committee criticised the Government for making its decision without giving enough consideration to the capacity of private sector providers to absorb the FSS’s 60% market share, the possible impact on forensic science research and the wider implications for the criminal justice system. The Committee concluded that “the FSS’s dire financial position appears to have arisen from a complex combination of factors, principally the shrinking forensics market, driven by increasing police in-sourcing of forensic science services, and a forensic procurement framework that has driven down prices and does not adequately recognise the value of complex forensic services”.\(^10\) It recommended an extension to the closure process during which “the Government [should] consult on and determine a wider strategy for forensic science”.\(^11\)

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1 Home Office, *Forensic Science Strategy: A national approach to forensic science delivery in the criminal justice system*, Cm 9217 (March 2016)
2 Justice, policing and forensic services are devolved to Scotland and Northern Ireland.
4 Science and Technology Committee, *Forensic science on trial*, Seventh Report, Session 2004–05, HC 96
6 Science and Technology Committee, *Forensic science on trial*, Seventh Report, Session 2004–05, HC 96
7 Ibid.
8 Ibid.
9 *The Forensic Science Service*, Seventh Report, Session 2010–12, HC 855
10 Ibid.
11 Ibid.
5. The Committee’s 2011 report noted the disappointment of Forensic Science Service employees that a previously planned transformation programme for the organisation had not been allowed to finish before the Government decided on its closure but also the Committee’s view that “the transformation could not have been successful because of the shrinking forensics market”.\textsuperscript{12} The Committee examined the Home Office Chief Scientific Adviser’s review of the post-FSS requirements for forensic research and criticised his exclusion from the decision-making process. It judged “his failure to challenge the decision” as “unacceptable”.\textsuperscript{13} Subsequently, Professor Silverman published his report in June 2011\textsuperscript{14} (paragraph 30).

6. In 2013, our predecessor Committee then reported on the impact of the FSS’s closure, a year after the event.\textsuperscript{15} Its Forensic science report concluded that “the FSS transition was well managed with regards to the maintenance of quality standards. We are satisfied that forensic work was not transferred from the FSS to unaccredited [forensic service providers]”.\textsuperscript{16}

7. The Committee also reiterated its earlier call for a long-term strategy, and in response the Government committed to producing a ‘Biometric and Forensic Strategy’ by the end of 2013.\textsuperscript{17} When the Committee’s March 2015 Legacy report for the 2010–2015 Parliament criticised the Government’s lack of progress in producing the promised strategy, the Home Office committed to publish it by the end of 2015.\textsuperscript{18} However, when the Government responded in September 2015 to a separate report by our predecessor Committee on Biometric data and technology,\textsuperscript{19} it stated that two strategies—a ‘Forensic Strategy’ and a ‘Biometric Strategy’—would be produced by the end-of-2015, in line with its earlier commitment on publication:

The Government recognises the need to develop a strategic approach to the use and retention of biometrics. This approach should recognise that biometrics is fast-changing and provides opportunities for better secure identity verification, better public services, improved public protection and the ability to identify and stop criminals. This should be balanced against safeguarding the rights of the individual from unnecessary intrusion. The Government’s Biometric Strategy and associated policy framework will support an aligned approach on the use and retention of biometrics and how its implementation is governed. Whilst forensics and biometrics both involve the use of science and technology, they are different. The Government is developing two separate but aligned Forensic and Biometric strategies and remains committed to publishing both strategies by the end of 2015.\textsuperscript{20}

\begin{itemize}
\item \textsuperscript{12} Ibid.
\item \textsuperscript{13} Ibid.
\item \textsuperscript{14} Home Office, Research and Development in Forensic Science: a Review (June 2011)
\item \textsuperscript{15} Science and Technology Committee, Forensic science, Second Report, Session 2013–14, HC 610
\item \textsuperscript{16} Ibid.
\item \textsuperscript{17} Home Office, Government response to the Second Report from the Science and Technology Committee: Forensic science, Cm 8750 (November 2013)
\item \textsuperscript{18} Science and Technology Committee, Legacy: Parliament 2010–15, Ninth Report, Session 2014–15, HC 758
\item \textsuperscript{19} Science and Technology Committee, Current and future uses of biometric data and technologies, Sixth Report, Session 2014–15, HC 734
\item \textsuperscript{20} Science and Technology Committee, Government response: Current and future uses of biometric data and technologies, Second Special Report, Session 2015–16, HC 455
\end{itemize}
The Forensic Science Strategy and our own inquiry

8. The Forensic Science Strategy was eventually published in March 2016, while the now separate Biometric Strategy has yet to be published. The Forensic Science Strategy included:

- A “national approach” to forensic services for the criminal justice system, to reduce “duplication of services across police forces”. Police forces, the Strategy noted, had work underway to scope how to deliver a “consistent national approach” to their forensic supply-chains, with “scoping work setting out business case options” expected in Spring 2016.

- An already ongoing review by police forces of the case for a ‘Joint Forensic & Biometric Service’.

- “Consistent quality standards to be applied across police forces”, and to forensic work contracted outside of the current national procurement system. In-house police forensic work would have to meet deadlines for accreditation, in the same way that private-sector providers have to. The Forensic Science Regulator would be given a statutory role to investigate non-compliance.

- A national approach to tackling the growing field of ‘digital forensics’, where “services are built once and used many times across law enforcement agencies […] to avoid unnecessary duplication”.

- A review of the governance structure for forensic science.

- “Significant savings” from implementing the Strategy to be “recycled into priority areas of research”.

9. We have undertaken our current inquiry in order to follow up not just the delayed Forensic Science Strategy but a number of persistent concerns of our predecessor Committees during the course of their reports:

- A shrinking and changing forensics market—fewer traditional examinations have been undertaken while ‘digital forensics’ and other new technologies have grown—and how public and private providers each respond to that changing picture.

- Reducing police budgets and the imperative to find efficiency savings in forensic services.

- The funding and incentives for undertaking forensic science research, how this has changed with the closure of the FSS, and the uncertainty for private sector providers faced with falling workloads in some areas.

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21 Home Office, Forensic Science Strategy: A national approach to forensic science delivery in the criminal justice system, Cm 9217 (March 2016)
22 Forensic Science Strategy, Cm 9217, paras 6, 30, 32, 84
23 ibid, p7
24 ibid, p7, para 35
25 ibid, para 63
26 ibid, para 57
27 ibid, para 75
• The use of forensic evidence in court, and how judges, lawyers and juries are able to interpret it.

10. In Chapter 2 we examine the implications for the procurement of forensic services. In Chapter 3 we look at the situation for research. Chapter 4 examines the standards and accreditation, and the provision of statutory powers for the Forensic Service Regulator. In Chapter 5 we consider the extent to which the Strategy deals with the need for a clear plan for the way ahead and the links between the Forensic Strategy and the still-awaited Biometrics Strategy.

11. We received over 30 written submissions and took oral evidence from the Chartered Society of Forensic Sciences, the Forensic Science Regulator, the Association of Forensic Science Providers, the National Police Chiefs Council lead for Forensics, the Metropolitan Police Service, LGC Forensics, Home Office officials, the Home Office Chief Scientific Adviser and the Royal Society. We also took evidence from Mike Penning MP, the then Minister for Policing, Fire and Criminal Justice and Victims (Brandon Lewis MP became the minister on 16 July, after we had concluded taking oral evidence). Members of the Committee also visited the Metropolitan Police Forensic Services Laboratory and LGC Forensics (see Annex). We are grateful to them all.
2 Procurement in a declining market

A changing workload

12. Forensic science is the application of science for the purposes of the law. It encompasses a broad range of disciplines, including the analysis of firearms, drugs, clothes and human tissues, as well as newer disciplines such as the analysis of computer hard drives and phones and other 'digital forensics' disciplines.28

13. The Forensic Strategy described changing forensic workload patterns:

Police Recorded Crime shows that traditional volume crime (e.g. burglary and vehicle theft) has declined, while crime with a digital element (e.g. child sexual abuse and indecent imagery offences) has increased. This corresponds to a decline in the demand for traditional forensic science, such as DNA and fingerprints, and an increase in demand for digital forensics. Sexual offences recorded by the police have also risen, with increased reporting of historic cases. Historic cases often have minimal forensic requirements due to the lack of remaining physical evidence.29

The unprecedented amount of digital information being generated has led to an increase in demand for digital forensics, whether the crime itself is digital or not [...]. The increase in the volume of potential digital forensic material, and the limited capacity within [police] forces to process these, has resulted in significant backlogs in a number of forces.30

The Strategy noted that the overall decline in the volume of forensic examinations has also seen a fall in expenditure:

Spending on forensics was broadly stable up to 2009–10 after which estimated police spending fell 18% to 2015–16.31

The reduction in spend can be attributed to a range of factors including that the number of acquisitive crimes, in which forensics have traditionally been used, is falling. The closure of the [Forensic Science Service] resulted in greater competition and lower prices. Police forces have adopted a more targeted approach to forensics submissions, moving away from a blanket approach.32

14. This picture of falling workloads and falling expenditure was one also found by our predecessor Committee’s 2011 inquiry. It noted a 2010 consultants’ review for the National Policing Improvement Agency which had projected a decline in the forensics market from £170m in 2009 to £110m in 2015.33 The Government highlighted in 2011 that “the police have reduced their forensics spend by realising efficiencies such as bringing certain

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28  Science and Technology Committee, The Forensic Science Service, Seventh Report, Session 2010–12, HC 855
29  Forensic Science Strategy, Cm 9217, para 20
30  ibid, paras 22, 23
31  ibid, para 26
32  ibid, para 27
33  Science and Technology Committee, The Forensic Science Service, Seventh Report, Session 2010–12, HC 855
processes in-house to be more cost-effective and better controlling submissions to reduce the cost of unviable samples being sent [... ] [and] the introduction of competition into the market has driven down the cost of forensics services”.  

15. Our predecessor Committee nevertheless found in 2011 “a widespread view that the forensics market was fragile”. The Committee was concerned about an increased police in-sourcing of forensic science which might distort the market “by the police customer increasingly becoming the competitor”. In their 2013 follow-up report they were still worried that “the continuing uncertainty over the current and future size of the market risks undermining the willingness and capacity of private forensic providers to operate and invest in that market”.  

**Procurement approaches**

16. Our predecessor Committee also had concerns about the procurement systems to deal with that reducing market. They noted in 2013 that some were worried about the ‘National Forensic Framework: Next Generation’ (NFFNG) agreement, encompassing laboratory services across 13 disciplines with nine commercial suppliers, producing a ‘commoditisation’ of forensic services which ignored the complexities of forensic interpretation and restricted the scope for tailoring tests to the needs of individual cases. Some (though not the police) had felt that this commoditisation could result in a fragmentation of services, where several providers could analyse different pieces of evidence within the same criminal case, with no one forensic expert having an overview of the entire case. The Committee warned police forces to be “cognisant of the important warnings given by eminent scientists, such as Dr Tully [subsequently the Forensic Sciences Regulator], about the dangers of fragmentation in procurement”. She had worried that there would “inevitably be cases where people are not being convicted because the forensic evidence has not been done to a sufficiently high standard or with the extra context [...] With the decreasing size of the market, and the continuing cuts and instability, it is more likely to happen.” The Government told our predecessor Committee in 2013 that:

> The NFFNG does not, in itself, lead to fragmentation as sole suppliers can be (and are) used on any one case. Cases do not need to be split or fragmented between suppliers. In fact it would be very unusual for individual cases (especially major cases) to be split across suppliers under NFFNG. [...] The NFFNG does not lead to the ‘fragmentation of evidence’ as police forces can (and invariably do) keep the larger, more complex cases with a single supplier.

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36 Ibid.
38 *Forensic Science Strategy*, Cm 9217, para 48
17. The Forensic Science Strategy acknowledged the problems of fragmentation:

The majority of forensic services are purchased through the NFFNG and the previous framework. Under this arrangement, police forces order specific tests or procedures from an external [forensic service provider], rather than an overall managed service. Whilst this approach enables forces to exercise greater control over the investigation strategy, and their expenditure on forensic services, it can also create fragmentation of cases. Investigations will also often encompass services that police forces provide in-house such as pre-screening of exhibits or the provision of digital forensics analysis.\(^{42}\)

Mark Pearce of LGC Forensics believed that fragmentation risks were now less evident because of such an approach:

Four or five years [ago], fragmentation from a provider’s point of view […] was quite extreme and damaging to the quality of the work that could potentially be achieved. As a market, we have matured together in that respect, so most forces, maybe not all, would now make an attempt to send a whole case to one provider, certainly within a particular evidence type.\(^{43}\)

18. When we put the risk of fragmentation of forensic services to Mike Penning, the then minister, he told us that “how a force puts together a [criminal] case against an individual is a matter for them […] but I have not seen the evidence on [fragmentation].”\(^{44}\) In the meantime, the Forensic Science Regulator told us that she was examining a small number of rape cases to investigate the issue.\(^{45}\)

19. The Strategy highlighted the potential advantages of a new ‘partnership’ approach to procurement:

[…] Forces [are] consider[ing] new approaches to their relationships with external suppliers in order to consider the end-to-end oversight of the supply chain.\(^{46}\)

Police forces are considering a new approach which could enable a single forensic deployment to cover all requirements; from traditional evidence recovery to digital triage and basic crime reporting. To deliver this, the crime scene investigator would need the skills and technical capabilities to allow forensic information to be collected and processed at scene and directed to the most appropriate database or end-user; be it investigator, prosecutor or specialist.\(^{47}\)

A partnership approach could include working with a specific [forensic service providers] for the purposes of research and development or contracting for forensic services as part of a wider partnership contract for management of support functions.\(^{48}\)
20. Mark Pearce highlighted the North-East region partnership where “the expert who is allocated a particular case can take a whole-case view and give an opinion based on all the facts”. He wanted to see “a mindset change of inclusive behaviours” based on a partnership procurement model. He told us:

We’ve got to do this differently. We’ve got to talk more. We’ve got to work over a longer period of time. We will invest in this sector, but we will only do so if we are doing it in partnership with joint business cases with mutual return and benefit. The [procurement] framework does not provide that. It is a short-term, commodity-based procurement infrastructure vehicle that has had its day. [ … ] I do not think what will replace it will be a standard way of procuring. Police forces in each region, or separately, will choose something that suits their policing needs, and that may be different in London from the North-east or the South-west.

21. The Metropolitan Police is already planning a move towards such a partnership approach, based on seven-year contracts with a range of forensic providers, with an optional three-year extension. Tom Nelson of the Scottish Police Authority and representing the Association of Forensic Science Providers, believed that “it is so important to have longevity of the contract, because that would allow providers to invest in that particular area. It will also allow us to benefit from the research and the innovation that they actually bring”. Some smaller companies were concerned, however, that a partnership approach could make them sub-contractors to larger companies. ROAR Forensics, for example, believed that it would create “distinct two-tier levels of [forensic service provider]” between large providers and those with “specific or focused discipline strengths”.

22. With the NFFNG agreement expiring at the end of July 2016, the Strategy appears to have left uncertainty about the extent of such partnership models and any other procurement methods in the future. Gary Pugh of LGC Forensics saw “a lack of clarity on what the national approach actually means for the private sector in the Strategy as it stands”. He told us:

There is a leap of faith for the private sector that the good work and partnership approach that we have tried to foster will continue and will play a prominent part in the delivery of the Strategy.

Dr Gillian Tully, the Forensic Science Regulator, in a similar vein, told us:

Looking at the Strategy, it does not seem, from my reading of it, that it provides stability or certainty for forensic science providers going forward.
23. Compounding that uncertainty, the Strategy also provided little insight into the Government’s thinking on how dispensing with centrally provided NFFNG procurement regime could allow a “national approach”. The Strategy noted that “police forces have [ … ] collectively commissioned scoping work on how best to deliver a more consistent national approach.”

Police forces will have a national approach to forensic science delivery that will provide a more strategic relationship with the forensic supply chain through ongoing oversight of the health of the supply chain [ … ] and a review by police forces of the case for moving the current fragmented arrangements to a nationally organised system.

But, as the Home Office informed us in September 2016, the ‘scoping work’ noted in the Forensic Science Strategy is “part of” the police’s Specialist Capability Review (paragraph 76) which was proceeding under “the principle that there are some capabilities that should be delivered at the multi-force or regional level to drive further efficiency”. The Home Office explained that:

From this month onwards, forces or police regions (collaborations) will procure their own services by running tenders for themselves. To ensure that this is in keeping with the forensic strategy’s overall aim for a national approach, oversight of these commercial activities will be provided by the [police] Forensic Marketplace Strategy Board.

24. The Home Office calculated that since 2008 the NFFNG and its predecessor system had secured a “40% reduction in price and 50% reduction in turnaround times”, but that “probably many of the benefits you are going to get—or squeeze—out of this have been achieved, and many [police] forces are looking at a different approach”. The decision to not replace the NFFNG appears also, however, to have reflected a Government reluctance to impose systems from the centre. Mike Penning explained that the Strategy did not represent a move to a common national procurement arrangement, which would be “completely against Government policy”. He wanted police forces “to develop their own strategies on procurement”.

25. The Strategy noted that any forensic services procured by police forces through the NFFNG agreement were required to be accredited to the ISO 17025 standard, but gave no information on the accreditation requirements for private sector providers once that framework lapsed in July. In September the Home Office informed us that accreditation “will continue to be a requirement in future for all out-sourced services” including for digital forensics which were outside the NFFNG system. (We discuss accreditation for in-house police forensic services in Chapter 4.)

58 Forensic Science Strategy, Cm 9217, para 32
59 ibid, para 47
60 Home office (FST0033)
61 Ibid.
62 Q94
63 Q147
64 Q151
65 Forensic Science Strategy, Cm 9217, para 41
66 Home office (FST0033)
26. With the ‘National Forensic Framework: Next Generation’ system not being replaced after it lapsed in July 2016, the Government’s Forensics Strategy document was unclear about the procurement regime that will follow it. It also failed to explain that individual forces would now be undertaking their own procurements, or how this decentralised arrangement would square with the Strategy’s desire for a “more consistent national approach”, or how new ‘oversight’ systems would operate.

27. Where the police continue to provide forensic services in-house, they will not be required (unlike the private sector) to meet accredited quality standards until compelled to do so by the Regulator’s deadlines falling due over the next few years (paragraph 46). In the meantime, private sector providers remain unsure, despite the Strategy’s publication, about the intended extent and nature of their involvement in the overall forensics market. There remains a risk of fragmented forensic examinations, where tests on a case are sent to more than one forensics provider, though a risk that has reduced as some police forces have followed a partnership route. The ongoing police ‘Specialist Capability Review’ (paragraph 23, 76) offers scope for police forces to share more services, including potentially forensics services, which might allow more sharing of evidence between forces.

28. As we recommend in Chapter 5, the Government must produce a revised and more complete Strategy on the back of a consultation addressing the results of currently ongoing work by the police. When it does so, the Government should set out a clearer way forward for forensics procurement, which resolves the potential inconsistency of police forces increasingly organising their own procurements within a ‘consistent national approach’.
3 Forensic science research

29. Our predecessor Committee, in its 2011 report on the Forensic Science Service (FSS), was concerned that “no formal assessment was made of the impact of closing down the FSS on forensic science R&D before the decision was made and announced”.67 The Committee’s worry was that it would be “probably unreasonable to expect private companies to increase their investment in some areas of forensic science research, particularly in fundamental research, at a time of market uncertainty”.68 The Government at that time believed that “the FSS’s financial difficulties had already seriously limited the company’s resource and capacity for research and innovation”.69

Silverman review

30. In January 2011, a month after its announcement that the FSS would be closed, the Home Office commissioned Professor Bernard Silverman, the Home Office Chief Scientific Adviser, to review forensic science research. His report, published in June 2011, noted that the procurement framework agreement (paragraph 16) included a requirement for private-sector providers, including those undertaking work formerly done by the Forensic Science Service, to carry out R&D.70 His report concluded overall, however, that the research landscape was fragmented and that improved coordination and communication was needed to drive innovation effectively. Many of the review’s recommendations, below, were subsequently implemented.

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<thead>
<tr>
<th>Silverman review recommendations</th>
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<tbody>
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<td>The Forensic Science Regulator should help establish reviews to summarise the scientific basis of forensic science techniques to help Court understanding.</td>
<td>The Royal Society announced in 2016 a project for creating ‘primers’ for this purpose (paragraph 50).</td>
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<td>The Technology Strategy Board [now Innovate UK] should consider whether a Knowledge Transfer Network would be appropriate for forensic science.</td>
<td>One was subsequently established, known as the Forensic Science Special Interest Group (paragraph 37).</td>
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<td>A cross-disciplinary forensic science conference should be established.</td>
<td>Such events were subsequently hosted by the Chartered Society of Forensic Sciences in 2012, 2013 and 2015, and the Royal Society hosted their own forensics conference in early 2015.</td>
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<td>Forensic science should be designated as a strategic research priority for the research councils.</td>
<td>(paragraph 32).</td>
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31. Our predecessor Committee’s 2013 follow-up report considered the results of the Silverman review and concluded that while it had “led to some positive outcomes for forensic science, it has not addressed the chronic lack of funding faced by the sector”. The Committee was “disappointed that it remains as difficult as ever for forensic science researchers to obtain funding for research”.71

67 Science and Technology Committee, The Forensic Science Service, Seventh Report, Session 2010–12, HC 855
68 Ibid.
69 Home Office, Government response to S&T Committee: Forensic Science Service, Cm 8215 (October 2011)
70 Home Office, Research and Development in Forensic Science: a Review (June 2011), para 3.5
71 Science and Technology Committee, Forensic science, Second Report, Session 2013–14, HC 610
32. The Committee also emphasised the importance of Prof Silverman’s recommendation for forensic science to be a strategic priority for the research councils.\textsuperscript{72} Research Councils UK directly responded to the Committee’s 2013 report, highlighting the research councils’ involvement in the Special Interest Group and other Silverman initiatives, and drawing attention to what it described as a “widespread misconception” that research councils would not fund forensic research.\textsuperscript{73}

33. When in our current inquiry we raised with Professor Silverman the possible diminution of forensic science research since the closure of the Forensic Science Service, he told us that:

Quantifying the amount of research in areas is always difficult. I do not have any comparative figures on what was done then. […] What comes through in the evidence that [the S&T Committee] have received, which I was very interested to read, is a mismatch between the experiences of those doing the research and the perceptions of the research councils in funding it. What is important, going forward, is that we should have clearer routes to the funding of research, so that those doing this important work understand that their proposals will be looked at. The important thing is that the right kind of research is done—that which has the most impact. […] I do not sense that it is the case that research has diminished in the last few years.\textsuperscript{74}

Professor Silverman told us that he had mapped academic groups undertaking fingerprint-related research across the country which, he believed, presented “quite a healthy group”.\textsuperscript{75}

34. The Forensic Service Regulator thought, on the other hand, that research had suffered. Dr Gillian Tully told us:

There is less research and development done in the UK since closure of the FSS, because you cannot lose that number of researchers with that level of budget and not find that there is less research and development carried out. People differ on what impact that has had. For me, the gap in research and development is around the underpinning science and the data needed to support the interpretation of evidence, because that is something that does not have a commercial return on investment and it is also quite difficult to gain funding for in an academic sense. There has been a diminution of that kind of research.\textsuperscript{76}

\textsuperscript{72} Ibid.
\textsuperscript{73} Science and Technology Committee, 	extit{Forensic science: Research Councils UK Response}, Sixth Special Report, Session 2013–14, HC 843
\textsuperscript{74} Q119–120
\textsuperscript{75} Q119
\textsuperscript{76} Q14; See also Forensic Science Regulator (FST004), para 13
The Strategy

35. The Forensic Science Strategy acknowledged the need for research, at a more fundamental level, into the effectiveness of forensics:

Research into the contribution that forensic evidence makes to the investigation of crime is limited. [...] There is a need for in-depth analyses to enhance our understanding of the specific contribution of forensic science to the [criminal justice system] in England and Wales; for example, in terms of deterrence, increased prosecutions and convictions, and maintaining legitimacy and impartiality. We will commission further research to identify the contribution and value of forensic science to the CJS in England and Wales in light of changing crime types and digital technology.\[77\]

The Regulator highlighted a “current lack of data regarding the value of forensic science to investigations”.\[78\] The Government Chief Scientific Adviser’s 2015 Annual Report noted that “only a small proportion of cases involving forensic science evidence reach the courtroom”.\[79\] One reason, he speculated, may be that defendants were increasingly pleading guilty to forensic-evidenced prosecution cases before they reached court. Mike Penning told us that he would commission research to establish the reasons for this.\[80\]

36. The Regulator, and some forensic service providers, also raised a concern that the proposed ‘national approach’ would prioritise the short term needs of the police at the expense of longer term research requirements. Dr Tully told us:

The Strategy deals with only a relatively small part of the overall requirement for scientific advances and underpinning research in the field, namely the development of new methods or equipment to meet identified policing needs.\[81\]

37. Part of the problem, as the Home Office told us, is that it is “not clear where the experts think the gap is, precisely.” The Forensic Science Special Interest Group, set up in response to Professor Silverman’s 2011 review, told us that it had produced a Forensic Science Innovation Database of “challenges, contributors and stakeholders”, but had “struggled to ensure that all those within the forensic science community are aware of it. In particular it has been challenging to penetrate organisations within policing and the Home Office.”\[82\] The Home Office, for its part, acknowledged that “many police forces who have worked alongside academic partners to submit bids for funding through [the research council funding] process have been unsuccessful”.\[83\]
38. The Home Office thought that the formation of the new ‘UK Research & Innovation’ organisation could improve the situation:

The Government Office for Science is currently working with all Government departments in response to the Nurse Review of Research Councils. One of the Review’s recommendations involves developing statements of research requirements to inform research councils’ funding priorities. The Home Office will contribute a section on forensic science which we hope will increase the amount of funding to forensic-related research.\(^{84}\)

Professor Silverman made the same point: Forensic science was “an important area” in the Home Office’s input.\(^{85}\)

39. While the private sector lacks a clear view of the Government’s research priorities, it also lacks sufficient incentive to fund research itself. The Strategy acknowledged this:

Research and development in forensic science is carried out by private [forensic service providers], academic institutions, police forces and the Home Office. The breadth of forensic science disciplines creates a complex landscape in which collaboration between organisations is vital. Currently the forensic market does not sufficiently incentivise investment in research and development as relatively short-term commercial contracts and the lack of clarity over requirements combine to create uncertain prospects for turning ideas into commercially viable products or services.\(^{86}\)

There is no national mechanism for setting research priorities for the [criminal justice system]. … There are areas of research that could be of benefit to the CJS, but which have very limited prospects of generating a return on investment for the private sector.\(^{87}\)

Mark Pease of LGC Forensics, in a similar vein, told us:

The innovation section [in the Strategy] is the only one without any [enboldened] highlighted actions in it. It is very saddening to see that we cannot come up with any recommendations about how we can work together to foster some blue-sky research, which could be done in academia, but is being done in the private sector. [ … ] We are struggling with seeing and getting collective applications for research funding.\(^{88}\)

The Leverhulme Research Centre for Forensic Science was similarly concerned that the Strategy had “no mention of any research, or the development of a research strategy, in the proposed next steps.”\(^{89}\)

40. Despite a raft of improvements following the 2011 Silverman review, there remains a pressing requirement for more forensics research, including into how well the science contributes to the criminal justice system. Without the benefit of the results of such
research, we cannot know whether the low proportion of forensic cases reaching court is the result of defendants not wishing to contest the forensics or represents a misdirected allocation of resources. The Government should without delay commission the research promised by the minister on the reasons for the low proportion of forensic cases reaching court.

41. There is no mechanism for setting national forensic research priorities. Efforts to share data on identified research requirements, and on who is undertaking what research, are inadequate. At the same time, the private sector remains insufficiently incentivised to invest in forensics research. The Home Office, in its input to the newly created UK Research & Innovation, should press for a greater priority—and share of funding—to be given to forensics research. The Government should also work with the Forensic Science Special Interest Group to relaunch its forensic research and innovation database, to help coordinate the work of public and private forensic scientists and businesses.

**Funding**

42. While there are doubts about the sort of research that is needed, the Strategy does appear to hold out the prospect of increased funding for it:

> A national approach to forensic service delivery could generate significant savings for police forces, which could be recycled into priority areas of research.\(^90\)

Dr Tully, the Forensics Regulator, feared however that any savings could be diverted elsewhere within police budgets:

> No indication is given of how this [recycling of savings] might be achieved. Without a requirement to do so, it is difficult to envisage how the 43 police forces of England and Wales, each with their own very real financial pressures and their own Policing and Crime Commissioners, might be persuaded to re-invest in research in any co-ordinated manner.\(^91\)

43. We accordingly asked ministers about how any savings from the Strategy would be used. Brandon Lewis MP, the current minister, informed us that the police’s work underway on “developing a strategic proposition to transform police forensics and biometrics” would allow the police “to identify the full range of potential financial savings and options for reinvesting this money. Decisions on how to proceed will then be an operational matter for [Police & Crime Commissioners] and Chief Constables.”\(^92\)

44. Any savings achieved from implementing the Forensics Strategy should not wholly be subsumed in general police budgets, but instead a significant proportion (we recommend at least half) explicitly ring-fenced and used specifically to fund the forensic science research needs identified by the Home Office and Ministry of Justice.

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90 Forensic Science Strategy, Cm 9217, para 75  
91 Forensic Science Regulator (FST004), para 13  
92 Home office (FST0033)
4 Standards and accreditation

Accreditation

45. Quality standards in forensic science are typically achieved through accreditation to the international standard ISO 17025; general requirements for the competence of testing and calibration laboratories. This standard is intended to ensure organisational competence, individual competence, validity of methods and impartiality within a forensics laboratory.

46. Our predecessor Committee noted in its 2011 report that all forensic service laboratories providing services for the police were required to be accredited to this standard by the Home Office’s procurement strategy, but that police in-house forensic services were not subject to the same requirement (paragraph 47). The Committee had “serious concerns about the potential transfer of the [Forensic Science Service’s] work to non-accredited police laboratories […] [which] would pose significant and unacceptable risks to criminal justice”.93 In its response to their report, the Government confirmed that FSS work transferred to private forensic service providers would only be transferred to ISO 17025 accredited companies.94 The issue of non-accredited work undertaken by police forces themselves remained a point of concern for the Committee, however, as it set out in its subsequent 2013 report: “There is no legitimate reason for police laboratories to conduct forensic science in the absence of accreditation.”95

47. The Forensic Strategy noted the current situation:

All police forces are either accredited for fingerprints and DNA recovery, working towards accreditation, or share facilities with a force that already has accreditation. However, more needs to be done to ensure appropriate compliance with quality standards to maintain public confidence and reduce the potential for miscarriages of justice.96

The Forensic Science Regulator has set out a number of deadlines for accreditation in Codes of Practice and Conduct, including for digital forensics (October 2017), fingerprint comparison (October 2018) and crime scene examination (October 2020).97 The Home Office provided further information for us on other deadlines for other disciplines and the number of police forces currently accredited in particular work areas.98 The aim, as the Government put it was “to provide parity in the forensic market-place, which would involve police forces being required “to implement the same quality standards as those demanded from commercial providers”.99

93 Science and Technology Committee, The Forensic Science Service, Seventh Report, Session 2010–12, HC 855
94 Home Office, Government response to S&T Committee: Forensic Science Service, Cm 8215 (October 2011)
95 Science and Technology Committee, Forensic science, Second Report, Session 2013–14, HC 610
96 Forensic Science Strategy, Cm 9217, para 17
97 Forensic Science Regulator, Codes of Practice and Conduct for forensic science providers and practitioners in the Criminal Justice System (Issue 3: February 2016). See also Q3.
98 Home office (FST0033)
99 Ibid.
48. The Regulator, Dr Tully, explained to us how getting accreditation would be a challenge:

Achieving the deadlines that I set is a huge challenge, particularly the digital forensics challenge. [...] It is a tremendous challenge to get everybody through in time. [...] Accreditation is only the final step; it is only the external validation of the fact that, yes, you are doing things to the correct standard. You have to put all the work in first of all, to get to the right standard.100

Chief Constable Debbie Simpson agreed that “it will be a challenge”.101 Tom Nelson of Scottish Police Authority noted that accreditation had increased costs in Scotland, and emphasised how the process in England and Wales could prompt police forces to consider which services they retain in-house:

There is no doubt that it will increase the cost. For laboratories like ourselves, who are fully accredited, it has increased our costs significantly, so there is a cost to accreditation. [...] As police forces look to see whether they want to enter the in-house market, they need to weigh up those costs and see whether it is beneficial to do the work in-house to the same standard as the external providers.102

49. Our predecessor Committee was also concerned about the lack of any requirement for accreditation of forensic evidence presented in court on behalf of the Defence. It concluded that “forensic science services conducted for the Defence should be subject to the same level of quality control as those for the prosecution. The Government should support the Forensic Science Regulator’s efforts to extend the scope of regulation to Defence experts.”103 In our current inquiry, the Regulator told us that she was in the process of developing an accreditation standard for the interpretation of forensic evidence in conjunction with the judiciary:

The standard will set out the minimum standards for how you go about interpretation and will attempt to bridge the gap between how scientists see evaluation of evidence and how the courts have sometimes seem evaluation of evidence.104

50. This could complement a separate initiative by the Royal Society (in collaboration with the Lord Chief Justice and the Royal Society of Edinburgh), announced in April 2016, to develop a series of ‘primers’ on the use of scientific evidence in the courtroom, beginning with DNA analysis.105 The primers will be peer reviewed by practitioners, including forensic scientists and the judiciary, as well as the public.106 Dr Julie Maxton from the Royal Society explained that the primers would be “short statements, in plain English [...] [which] will explain how far the science goes at any given time and what

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100 Q4
101 Q66
102 Q72
103 Science and Technology Committee, Forensic science, Second Report, Session 2013–14, HC 610
104 Q26
105 Royal Society, National academies and the law collaborate to provide better understanding of science to the courts, announcement (11 April 2016)
106 Q107
the limitations of the science are”. She did not believe that the existence of the primers would necessarily reduce the need for expert witnesses, but “it might limit the field over which the expert witnesses disagree”.

**Bias**

51. There has been a long-running debate about whether the police undertaking at least some of its own forensic work could be unfairly disadvantageous to the Defence, and whether accreditation for police in-house services would mitigate any such bias.

52. Our predecessor Committee’s 2011 report on the Forensic Science Service concluded that there were risks to impartiality of forensic evidence when it was produced by non-accredited police laboratories:

> A nebulous fear or perception of impartiality is insufficient reason to condemn police in-sourcing of forensics, although the perception of impartiality is crucial to the courts and public confidence in the criminal justice system. However, given that so few police forensic laboratories have been accredited to ISO 17025, a standard that demands a level of impartiality, we must express concerns about the risks to impartiality of forensic evidence produced by non-accredited police laboratories.

53. In our current inquiry, many smaller private sector forensic service providers saw a need to separate policing from the management and delivery of forensic science, to help ensure impartiality. The Forensic Science Regulator, on the other hand, told us that she had no inherent objection to forensic work being undertaken within police forces but that accreditation would address any impartiality:

> It is extremely important that forensic scientists are allowed the independence to come to their conclusions without being unduly influenced by investigators, but that can happen even within a police environment as long as the right organisational, procedural and cultural safeguards are in place. [...] One of the things that accreditation brings is that the accreditation to the international standards that we use includes an assessment of impartiality.

54. Dr Tully nevertheless saw “a major risk around unconscious bias” arising from decisions about what evidence is collected at the crime scene and what forensic tests are commissioned. Such ‘cognitive bias’, as the 2011 public inquiry on the 1999 Scottish McKie case found, can arise from information about the case being given to the forensic scientist, or knowledge about another scientist’s conclusion on the same examination. A number of techniques can be used to mitigate the effects of cognitive bias, including effective case management strategies (limiting who has access to what information), blind...

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107 Q105
108 Q110
110 For example Linked Forensic consultants Ltd (FST003) and (FST028), Angus Marshall (FST007), ArroGen Forensics Ltd (FST010), Principal Forensic Services Ltd (FST022), Forensic Access (FST026)
111 Q29
112 ibid
113 POST, Unintentional Bias in Forensic Investigation, POST Brief 15 (October 2015)
verification (making sure a second examiner does not know the outcomes of the first test) as well as much more sophisticated methodology and examination procedures. In 2015, the Forensic Science Regulator issued guidance on cognitive bias and how to manage them. In addition, judges in the High Court, Court of Appeal and the Supreme Court have received training on cognitive bias and how it may affect forensic results.

55. **Accreditation of all forensic laboratories and scientists to the industry’s standards is essential, including police in-house services.** We welcome the important work being done by the Regulator in negotiating accreditation deadlines and in developing further standards, and by the Royal Society and others in developing ‘primers’ to assist courts in dealing with forensic evidence effectively. Such standard-setting and accreditation should also help dispel any concerns about ‘cognitive bias’ in the police commissioning and undertaking forensic examinations. *The Government must be clear that, while some police forces may face particular challenges in securing accreditation, there must be no failure to meet the Regulator’s deadlines.*

### Statutory powers for the Regulator

56. The effectiveness of standards and guidance, and of the accreditation of those adhering to them, will depend on how well they can be enforced. The Criminal Cases Review Commission emphasised that “all stages of the criminal investigation and trial processes should be based on common quality standards underpinned by statutory requirements”. The Regulator highlighted the difficulty of moving towards accreditation when “there is not a clear ‘What if I don’t?’” Dr Anya Hunt of the Chartered Society of Forensic Sciences told us “until that stick is in place, it is very difficult to enforce that.”

57. Our predecessor Committee’s 2011 report concluded that “it is time for the Forensic Science Regulator to have statutory powers to enforce compliance with the quality standards and Codes of Conduct that [the then Regulator] has developed through what appears to be a robust process”, and recommended that the Government “bring forward proposals to provide the [Regulator] with statutory powers immediately.”

58. The Committee’s July 2013 follow-up report reiterated that recommendation; specifically that the Government “decide on a statutory role by March 2014”. In its response in November 2013, the Government announced a consultation on proposals to put the role of the Regulator, and the scope of regulation, on a statutory footing, and to make adherence to the quality standards set by the Regulator mandatory for all providers, including those supplying the defence. We expect to decide on the outcome of that consultation following the appointment of the next Regulator in early 2014.

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115  POST, *Unintentional Bias in Forensic Investigation*, POST Brief 15 (October 2015)
117  Criminal Cases Review Commission (FST006)
118  Q12
119  Q13
122  Home Office, *Consultation on new statutory powers for the forensic science regulator* (November 2013)
59. It was not until July 2015, however, that the Government published an analysis of the response to the consultation, without any Government opinion, stating simply that “the way forward will be published alongside the [Forensic Science] Strategy”.124 When the Strategy was published in March 2016, it contained a commitment to granting the Regulator statutory powers by the end of this Parliament:

We will develop proposals to give the Forensic Science Regulator statutory powers, put the current remit and the associated Codes of Practice on a statutory basis and enable the Forensic Science Regulator to investigate non-compliance where necessary.125

60. The Regulator, Dr Tully, believed that “it will not be possible to ensure full compliance with the standards without statutory powers”.126 She told us that she was “disappointed that the timescale for that is not specified earlier than the end of the Parliament”.127 She highlighted her doubts that, in the meantime, the accreditation deadlines falling due over the next few years (paragraph 46) would be universally met:

[For police forces,] it is a tremendous challenge to get everybody through in time. I am sure that some will not make it […] I am also concerned about the small commercial providers, particularly sole traders and very small SMEs, who do not appear to be making the progress that I would want to see.128

Chief Constable Debbie Simpson thought that giving the Regulator statutory powers was “the only way to ensure compliance and to ensure that standards are achieved”.129

61. The Home Office told us that they were waiting for an appropriate legislative vehicle to provide the statutory powers. The then minister, Mike Penning MP, wrote in July to tell us that “we were unable to include proposals in the Policing and Crime Bill, as priority had to be given to key measures to further reform policing, and enable important changes to the governance of fire and rescue services. […] Officials are currently exploring options for inclusion of these measures during the second [Parliamentary] Session.”130

62. Mike Penning also told us in July 2016 that, despite there having been a consultation in 2013, there would be a consultation “on the exact powers”.131 His recent successor, Brandon Lewis, informed us in September that this latest planned consultation “will not involve a repeat of the public consultation carried out in 2013/14, but an informal consultation and engagement process with police forces and private sector suppliers as well as with partners from across the [criminal justice system] to ensure that the proposals are both sensible and proportionate.”132

124 Home Office, Government response to the consultation on new statutory powers for the Forensic Science Regulator (July 2015)
125 Forensic Science Strategy, Cm 9217, para 44
126 Forensic Science Regulator (FST004)
127 Q1, Forensic Science Regulator (FST004)
128 Q4
129 Q71
130 Mike Penning MP (FST032)
131 Qg138, 168
132 Home office (FST0033)
63. Statutory powers for the Regulator are essential, to ensure that she has sufficient levers to ensure compliance with quality standards by all forensics service providers. We are left with serious doubts about the Government’s commitment to deliver this, however, because nearly three years have been allowed to elapse since the 2013 consultation on such powers, only for it now to initiate a further internal consultation, and because there is still no identified legislative vehicle. *The Government must without further delay, and certainly before the end of the current 2016–17 Session, bring forward the legislation necessary to give the Forensics Regulator the statutory powers needed to ensure accreditation and standards compliance.*
5 The strategy

A ‘national approach’

64. The Forensic Science Strategy proposed a move towards “a more consistent ‘national approach’”:

A national approach to forensic science delivery, proposed and delivered by police forces, would aim to ensure greater consistency of service quality; resilient, reliable capability and with economies of scale.\(^{133}\)

The Strategy lists seven areas through which that national approach will be delivered “by the end of this Parliament”:

a) consistent quality management and standardisation across police forces, including a clearer statutory role for the Forensic Science Regulator;

b) enhanced governance for the forensics system, including a wider role for the National DNA Database Ethics Group;

c) a review by police forces of the case for moving current fragmented provision into a Joint Forensic and Biometric Service to achieve economies of scale, increased capability and resilience;

d) ongoing oversight of the health of the supply chain, including contingency plans developed by police forces to cope with disruption to the market;

e) working closely with research councils and other public research organisations to identify new cost effective opportunities and influences for forensic science;

f) working with the College of Policing to understand the capabilities required within the forensic science workforce; and

g) nurturing a stronger partnership with industry and education to ensure that learning programmes are future proofed and aligned to the business requirements.\(^{134}\)

65. We have discussed much of this in the Chapters above—the supply chain in Chapter 2, forensics research in Chapter 3, and standards and the proposed statutory role for the Forensic Science Regulator in Chapter 4. From our examination in those areas, we conclude that any ‘national approach’ will depend on what the police service, rather than the Government, wish to bring about. The Strategy document itself refers to measures “proposed and delivered by police forces”.\(^{135}\)

66. The Government’s plans on procurement cast doubt on what is meant by a ‘national’ approach. As we noted in Chapter 2, police forces have contracted for the majority of external forensic work through non-mandatory ‘NFFNG’ national forensic procurement agreements, and will now be left individually to negotiate and manage new procurement agreements.

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133 Forensic Science Strategy, Cm 9217, para 6
134 Ibid, p7
135 Ibid, para 84
processes, including ‘partnerships’ (paragraph 19). As we noted above, the Government’s Forensics Strategy document failed to explain how the new decentralised regime would square with the Strategy’s desire for a “more consistent national approach”, or how new ‘oversight’ systems would operate. Mike Penning was clear that the ‘national’ aspect of the ‘national approach’ cited in the Strategy referred only to accreditation and their statutory enforcement by the Regulator.136

Biometrics and forensics

67. The Government’s Forensics Strategy is also unclear on the linkages between biometrics and forensics. As we noted above, in September 2015 the Government stated that two strategies—a Forensic Strategy and a Biometric Strategy—would be produced rather than the single document that had previously been envisaged (paragraph 7).137

68. In biometrics there has been a long-running issue about how individuals’ data (particularly their DNA) is collected and retained, so as to balance the effectiveness of the criminal justice system with the need to safeguard privacy. The National DNA Database Ethics Group expected the forthcoming Biometrics Strategy to put “into focus some of the key ethical challenges which society faces in the large-scale collection and storage of information about individuals”.138

69. Despite the fact that the Biometric Strategy has not yet been published, the Forensic Strategy announced “a review by police forces of the case for moving current fragmented provision into a Joint Forensic and Biometric Service to achieve economies of scale, increased capability and resilience”. The Home Office gave us more details in June 2016:

A programme of work will […] ensure that those forensic and biometric capabilities currently delivered in-house are organised most effectively and shared across policing, where appropriate. A study has been commissioned of how technological advances in forensics at the frontline could best be exploited […] This will focus in particular on ensuring that lessons have been learned from field trials of technology like ‘Rapid DNA’ and identity technologies and approaches that would benefit from a wider, national roll out. Chiefs and [Police and Crime Commissioners] will want to consider the case for a [Joint Forensic and Biometric Service] in the round. One likely potential benefit will be an improved ability to innovate, to send signals to suppliers about priorities for innovation, and an enhanced ability both to trial new approaches and ensure these are rolled out widely over a service supporting a large area of law enforcement.139

136 Qq168–169
137 Science and Technology Committee, Government response: Current and future uses of biometric data and technologies, Second Special Report, Session 2015–16, HC 455
138 National DNA Database Ethics Group (FST005) para 13
139 Home Office (FST031)
Oversight and governance

70. The Strategy also lacks full details on the proposed governance and oversight of forensics, which, it noted, were still to be decided:

We will review the existing governance structure in order to ensure there is a clear, simple, overarching governance structure, capitalising on the national approach.\(^\text{140}\)

The Strategy proposes the expansion of the remit of the National DNA Database Ethics Group (to also cover biometrics) and the National DNA Database Strategy Board (to also cover fingerprints). The National DNA Database Ethics Group told us that it welcomed this.\(^\text{141}\) However, details of how the overall governance structure will be simplified are unclear.

71. The Forensic Strategy placed responsibility for the implementation of the Strategy on the existing Forensic Policy Group (FPG), chaired by the Home Office.\(^\text{142}\) The Regulator wanted a reformed FPG also to be the vehicle for continuing forensic governance:

The Forensic Policy Group is the only one of the existing groups that could potentially be the overarching governance mechanism. To be really effective it would need representation from all stakeholders. It would need clearly defined terms of reference and an ability to act, and it would need to meet more regularly.\(^\text{143}\)

72. No changes to the FPG’s membership were indicated in the Strategy, despite the Government promising our predecessor Committee in 2013 that “[The Forensic Science Strategy] will inevitably result in the Forensic Policy Group changing into a wider, more representative group”.\(^\text{144}\) The Home Office told us in September 2016 that they had recently reviewed and expanded the membership of the FPG to “ensure that all stakeholder views are represented and a wide range of issues can be considered”, and that the Group will publish its minutes.\(^\text{145}\)

73. One area in which the governance structure for forensics has improved is ministerial responsibility. Our predecessor Committee expressed its concern in its 2013 report that the Ministry of Justice had no ministerial oversight of forensic science. Since 2014, however, forensic science has fallen under the remit of the Minister for Policing, Fire, Criminal Justice and Victims; a joint Home Office and Ministry of Justice role.

74. The Strategy included the aim of a “stronger engagement on forensic science with the Ministry of Justice”, but gives no indication of how this will be achieved. The Regulator welcomed the commitment, but was concerned that the envisaged governance arrangements “will follow a move to a national approach, rather than lead it”.\(^\text{146}\)

\(^\text{140}\) Forensic Science Strategy, Cm 9217, para 57
\(^\text{141}\) National DNA Database Ethics Group (FST005) para 5
\(^\text{142}\) Forensic Science Strategy, Cm 9217, paras 19, 55
\(^\text{143}\) Q30
\(^\text{144}\) Home Office, Government response to the Second Report from the Science and Technology Committee: Forensic science, Cm 8750 (November 2013)
\(^\text{145}\) Qq98, 160–3; Home office (FST0033)
\(^\text{146}\) Forensic Science Regulator (FST004), para 15
An incomplete strategy?

75. The vague language in the Strategy on procurement, with its sparse detail on how locally-negotiated non-standard contracts will deliver the intended ‘more consistent national approach’ (paragraph 23), the lack of detail on the possibility of a joint biometrics and forensics service without the benefit of a published Biometrics Strategy and incomplete governance details, all raise the question of whether the Forensics Strategy is a strategy at all. The impression instead is that it is a plan to produce a Strategy in due course.

76. Home Office officials told us in April 2016 that the Strategy “is about setting out a framework and a set of principles on which [ … ] a lot of further work needs to be done”. Mike Penning, the minister then responsible for the Strategy, emphasised in July that it was “not a fixed entity”. The Specialist Capabilities Review being carried out by the National Police Chiefs’ Council—seeking to identify which operational policing capabilities are best provided at local or national level—was, he told us, having “an ongoing effect as to where and who is going to deliver forensics”. He reported that he was “very frustrated that the police capability review is not further forward”.

77. His successor, Brandon Lewis, indicated that there is still some way to go in completing the scoping work. He told us in September that:

    Police forensic leads have been working to develop a strategic proposition to transform police forensics and biometrics, which is still in the early stages. Chief Constable Debbie Simpson [ … ] presented initial proposals to police chiefs and [Police & Crime Commissioners] on 1 July 2016. They intend to make a bid to the Police Transformation Fund later this year to further build the evidence base, test what works and develop a full business case.

Consultation

78. The Strategy also has an air of incompleteness because ‘scoping work’ on key areas is still underway (paragraph 23), and there has been an evident failure to consult widely on the Strategy before its publication, which in turn has left many stakeholders unclear about its status and purpose.

79. When we took evidence in April, the Home Office was still undertaking a series of workshops. But key stakeholders, such as the Regulator, leaders of the forensic science profession, the Crown Prosecution Service, defence lawyers, the Criminal Cases Review Commission and the judiciary had not been involved then. The Regulator told us that she had not been asked to contribute to the scoping work. Dr Mark Pearse of LGC Forensics told us, at the same time, that they had not been consulted on the national approach:

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147 Q82
148 Q133
149 Home Affairs Committee, Letter to Home Affairs Committee from Chief Constable Sara Thornton, Chair of National Police Chiefs’ Council, 11 March 2016, evidence to the Committee’s Police and Crime Commissioners inquiry (PCC002)
150 Q134
151 Home office (FST0033)
152 Q33; Forensic Science Regulator (FST004), para 10
Because we have not been engaged and because there is a lack of clarity on what the ‘national approach’ actually means for the private sector in the Strategy as it stands, there is some uncertainty at the moment. There is a leap of faith for the private sector that the good work and partnership approach that we have tried to foster will continue and will play a prominent part in the delivery of the Strategy.\textsuperscript{153}

80. Many of our witnesses also criticised the focus on policing, rather than criminal justice, in the Strategy. Anya Hunt of the Chartered Society of Forensic Sciences thought that the Strategy was “very police focused”.\textsuperscript{154} The Regulator believed that:

The Strategy as it stands gives no clear vision for what that national approach looks like [ … ] It is the police who commission and pay for forensic science, but ultimately it is the courts who are the end-users of forensic science, so the whole criminal justice system needs to be involved. If we are to build a sustainable and effective future for forensic science that maximises the value that it brings, we need to look from the crime scene right through to the court. That means involving policing, forensic science professionals, the CPS, defence lawyers, judges and the Ministry of Justice more widely.\textsuperscript{155}

The Strategy focuses too much on policing as the leading body. [ … ] The police have a great part to play in this, but they are one part of a wider stakeholder base.\textsuperscript{156}

81. After we wrote to the minister, Mike Penning MP, about the consultation process,\textsuperscript{157} he told us in July that:

The Forensic Policy Group met on 6 June to provide a wide group of stakeholders representing both the commercial market and [criminal justice system] partners with an update on the progress so far. I would like to reassure you that we will continue to engage with this group as the proposals develop.\textsuperscript{158}

82. The long delay in producing the Forensic Strategy is unfortunate. But we would rather have seen further delay if that would have allowed the Government to complete essential foundation work, and to formulate a more coherent vision for forensic services and the route-map to deliver it that are missing from the Government’s document. The Government should acknowledge that the Forensics Strategy is an incomplete document which leaves too many issues and possible ways forward under-developed to constitute a coherent description of the Government’s policy and direction in this important area. The Government should now aim, on the back of the hopefully imminent publication of its long-awaited Biometrics Strategy and the conclusion of the police’s currently underway forensics service ‘scoping work’, to present a revised ‘draft Forensic Strategy’ for a full public consultation. Once that is done, we would hope to see a Strategy that justifies such a description.

\textsuperscript{153} Q42  
\textsuperscript{154} Qq1, 31  
\textsuperscript{155} Q1  
\textsuperscript{156} Q31  
\textsuperscript{157} Letter from the Committee to Mike Penning MP, 19 April 2016  
\textsuperscript{158} Mike Penning MP (FST032)
Conclusions and recommendations

Procurement in a declining market

1. With the ‘National Forensic Framework: Next Generation’ system not being replaced after it lapsed in July 2016, the Government’s Forensics Strategy document was unclear about the procurement regime that will follow it. It also failed to explain that individual forces would now be undertaking their own procurements, or how this decentralised arrangement would square with the Strategy’s desire for a “more consistent national approach”, or how new ‘oversight’ systems would operate. (Paragraph 26)

2. Where the police continue to provide forensic services in-house, they will not be required (unlike the private sector) to meet accredited quality standards until compelled to do so by the Regulator’s deadlines falling due over the next few years. In the meantime, private sector providers remain unsure, despite the Strategy’s publication, about the intended extent and nature of their involvement in the overall forensics market. There remains a risk of fragmented forensic examinations, where tests on a case are sent to more than one forensics provider, though a risk that has reduced as some police forces have followed a partnership route. The ongoing police ‘Specialist Capability Review’ offers scope for police forces to share more services, including potentially forensics services, which might allow more sharing of evidence between forces. (Paragraph 27)

3. As we recommend [below], the Government must produce a revised and more complete Strategy on the back of a consultation addressing the results of currently ongoing work by the police. When it does so, the Government should set out a clearer way forward for forensics procurement, which resolves the potential inconsistency of police forces increasingly organising their own procurements within a ‘consistent national approach’. (Paragraph 28)

Forensic science research

4. Despite a raft of improvements following the 2011 Silverman review, there remains a pressing requirement for more forensics research, including into how well the science contributes to the criminal justice system. Without the benefit of the results of such research, we cannot know whether the low proportion of forensic cases reaching court is the result of defendants not wishing to contest the forensics or represents a misdirected allocation of resources. The Government should without delay commission the research promised by the minister on the reasons for the low proportion of forensic cases reaching court. (Paragraph 40)

5. There is no mechanism for setting national forensic research priorities. Efforts to share data on identified research requirements, and on who is undertaking what research, are inadequate. At the same time, the private sector remains insufficiently incentivised to invest in forensics research. The Home Office, in its input to the newly created UK Research & Innovation, should press for a greater priority—and share of funding—to be given to forensics research. The Government should also work
with the Forensic Science Special Interest Group to relaunch its forensic research and innovation database, to help coordinate the work of public and private forensic scientists and businesses. (Paragraph 41)

6. Any savings achieved from implementing the Forensics Strategy should not wholly be subsumed in general police budgets, but instead a significant proportion (we recommend at least half) explicitly ring-fenced and used specifically to fund the forensic science research needs identified by the Home Office and Ministry of Justice. (Paragraph 44)

Standards and accreditation

7. Accreditation of all forensic laboratories and scientists to the industry’s standards is essential, including police in-house services. We welcome the important work being done by the Regulator in negotiating accreditation deadlines and in developing further standards, and by the Royal Society and others in developing ‘primers’ to assist courts in dealing with forensic evidence effectively. Such standard-setting and accreditation should also help dispel any concerns about ‘cognitive bias’ in the police commissioning and undertaking forensic examinations. The Government must be clear that, while some police forces may face particular challenges in securing accreditation, there must be no failure to meet the Regulator’s deadlines. (Paragraph 55)

8. Statutory powers for the Regulator are essential, to ensure that she has sufficient levers to ensure compliance with quality standards by all forensics service providers. We are left with serious doubts about the Government’s commitment to deliver this, however, because nearly three years have been allowed to elapse since the 2013 consultation on such powers, only for it now to initiate a further internal consultation, and because there is still no identified legislative vehicle. The Government must without further delay, and certainly before the end of the current 2016–17 Session, bring forward the legislation necessary to give the Forensics Regulator the statutory powers needed to ensure accreditation and standards compliance. (Paragraph 63)

The strategy

9. We conclude that any ‘national approach’ will depend on what the police service, rather than the Government, wish to bring about. (Paragraph 65)

10. The vague language in the Strategy on procurement, with its sparse detail on how locally-negotiated non-standard contracts will deliver the intended ‘more consistent national approach’, the lack of detail on the possibility of a joint biometrics and forensics service without the benefit of a published Biometrics Strategy and incomplete governance details, all raise the question of whether the Forensics Strategy is a strategy at all. The impression instead is that it is a plan to produce a Strategy in due course. (Paragraph 75)

11. The Strategy also has an air of incompleteness because ‘scoping work’ on key areas is still underway, and there has been an evident failure to consult widely on the Strategy before its publication, which in turn has left many stakeholders unclear about its status and purpose. (Paragraph 78)
12. The long delay in producing the Forensic Strategy is unfortunate. But we would rather have seen further delay if that would have allowed the Government to complete essential foundation work, and to formulate a more coherent vision for forensic services and the route-map to deliver it that are missing from the Government’s document. The Government should acknowledge that the Forensics Strategy is an incomplete document which leaves too many issues and possible ways forward underdeveloped to constitute a coherent description of the Government’s policy and direction in this important area. The Government should now aim, on the back of the hopefully imminent publication of its long-awaited Biometrics Strategy and the conclusion of the police’s currently underway forensics service ‘scoping work’, to present a revised ‘draft Forensic Strategy’ for a full public consultation. Once that is done, we would hope to see a Strategy that justifies such a description. (Paragraph 82)
Annex: Visits to the Metropolitan Police Forensic Services and LGC Forensics

Metropolitan Police Forensic Services

Two members of the Committee visited the Metropolitan Police Forensic Services in London on 24 May 2016: Victoria Borwick MP and Carol Monaghan MP.

The visit included discussion of issues involved in the Committee's inquiry into the Forensic Science Strategy, as well as demonstrations of locally-deployable rapid testing machines for DNA and drugs and digital (phone/computer) content analysis equipment.

Key points from the discussions included:

- The labs provided forensic examination services for the police, including in blood and body fluids, firearms, fingerprints, digital analysis, CCTV and other imagery analysis.

- 14% of recorded crime in the Met Police area involved some form of forensic intervention. Typically each year: 99,000 crime scenes are examined; there are 50,000 digital forensic examinations; 1,000 firearms are examined and 21,000 fingerprints. Overall, there are typically 250,000 forensic ‘cases’.

- Typically each year: 14,000 suspects are identified through fingerprint or DNA matching, with matches to existing databases accounting for 40% of residential burglaries; 91% of ‘high priority’ fingerprint cases are completed within 24hrs; 137 urgent firearm examinations are completed within custody time-limits; and 470 urgent blood/fluids examinations are completed within 48hrs for sexually motivated/serious violent cases.

- Financial budgets have been reducing, from £84m in 2012–13 to £74m in 2015–16. Pay budget to fall by a further £4.7m in 2016–17. 237 posts lost between 2013 and 2017. Savings have been a result of workload reductions overall (only partially offset by increasing digital forensic and imagery/CCTV work), overheads savings, estate consolidation and changing job roles. Further savings could be difficult to find.

- A new Digital Forensics Operating Model was being implemented. This involved examinations at three levels—frontline police officers using one of 60 local ‘kiosks’, specialists at 8 hubs across London, and at the central laboratory. As at April 2016, 1000 police officers (out of 2000 eventually) had been trained for the kiosk processes. All the kiosks, hubs and the HQ lab are being connected, to allow results to be shared over the whole MPS police area.

- Continuing development of ‘real time forensics’ services, using IT and new deployable equipment, offers the prospect of fingerprint identification within 1 hour instead of 2–5 days, drugs analysis in less than an hour rather than 2–5 days, and blood/fluid analysis in 2 hours rather than 2–15 days.
• The MPS outsource DNA profiling, toxicology and drugs analysis. 60% of the forensics budget is spent on DNA profiling. Contracts are generally for 2–3 years and are complex and sometimes inflexible. 'Partnership' arrangements are now being negotiated to replace them, with 7+3yrs contracts which set a minimum (as well as variable) baseload to provide business certainty for the contractors. The new arrangements will include agreed processes for innovation and further development of services.

• MPS forensic services that are covered by the Regulator’s Codes of Practice and Conduct are accredited to international standards.

LGC Forensics

Four members of the Committee visited LGC Forensics in London on 9 June 2016: Nicola Blackwood MP (chair), Victoria Borwick MP, Chris Green MP and Dr Tania Mathias MP.

The visit included discussion of issues involved in the Committee’s inquiry into the Forensic Science Strategy, presentations on the company’s history and strategies, as well as tours of the company’s DNA, digital and drug analysis laboratories.

Key points in the discussions included:

• LGC’s work included calibration and standards/quality control, genomics and laboratory services, as well as forensics services. LGC also hosts the Government Chemist and National Measurement Institute. It provides services to Defra, MoD, DoH and the Food Standards Agency, as well as forensic services to the police.

• On forensics, its annual workload typically includes dealing with: 230,000 arrestee DNA swab samples, 52,000 crime scene DNA items, 20,000 biology cases, 3,000 marks/traces, 21,000 controlled substance cases, 3,000 toxicology cases and 13,000 driver alcohol/drugs samples.

• Forensics science deals with both questions of substantiation/corroboration (who did the blood come from?) and opinion (did the blood come from a hammer blow?). Both need robust systems of standards and independent accreditation.

• The national crime detection rate is 26%, but this rises to 43% where DNA analysis is undertaken. For burglary it is 17% and 39%, and for theft from a vehicle 9% and 60%. Where DNA evidence is used, guilty pleas rise from 66% to 89%.

• Before and following the closure of the Forensic Science Service in 2012, the forensic market has been reducing: from about £180m in 2010, to £100m in 2012, and to £60m currently. LGC’s share of that declining market was 20% in 2010, 60% in 2012 and 45% currently. This picture is the result of many factors, including the changing nature of forensics, efficiency and innovation (unit costs have fallen 40% in the last 5yrs, and DNA turnaround times have reduced by 75%), and falling general police budgets.

• LGC’s forensics work is ISO 17025 accredited [see paragraph 25].
• New forensic procurement arrangements, including ‘partnerships’ [see paragraph 19], include good innovations. But they need to provide private sector providers with some certainty about workloads in order to plan infrastructure and staff investment, and opportunities for reward from innovation.

• The DNA labs visited by the Committee were the most automated in England, with extensive use of IT-driven sample-handling and tracking, and clean environment control.

• Police labs currently undertake the majority of digital forensics work in-house, but have a large backlog of cases. With police labs needing to be accredited by November 2017, LGC is providing advice to police labs to help them gain accreditation.

• In the drugs testing lab, while cannabis, cocaine and heroin account for most of the workload, new cases are now arising from the application of the recent Psychoactive Substances Act.
Formal Minutes

Tuesday 13 September 2016

Members present:

Victoria Borwick  Carol Monaghan
Chris Green        Matt Warman
Dr Tania Mathias

Dr Tania Mathias took the Chair, in accordance with the Resolution of the Committee of 19 July 2016.

Draft Report (Forensic Science Strategy), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 82 read and agreed to.
Annex read and agreed to.
Summary agreed to.

Resolved, That the Report be the Fourth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Wednesday 14 September at 10.00 am]
Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee’s website.

Tuesday 12 April 2016

Dr Anya Hunt, Chief Executive Officer, Chartered Society of Forensic Sciences, and Dr Gillian Tully, Forensic Science Regulator

Q1–35

Tom Nelson, Director of Forensic Services, Scottish Police Authority (representing the Association of Forensic Science Providers), Chief Constable Debbie Simpson, National Police Chiefs Council lead on Forensics, Gary Pugh OBE, Director of Forensic Services, Metropolitan Police Service, and Dr Mark Pearse, Commercial Director, Government Services, LGC Forensics

Q36–79

Mary Calam, Director General of Crime and Policing Group, and Stephen Webb, Director of Law Enforcement Programmes, Home Office

Q80–104

Wednesday 6 July 2016

Professor Bernard Silverman, Chief Scientific Adviser, Home Office, and Dr Julie Maxton, Executive Director, The Royal Society

Q105–132

Rt Hon Mike Penning MP, Minister for Policing, Fire and Criminal Justice and Victims, Home Office

Q133–173
Published written evidence

The following written evidence was received and can be viewed on the inquiry publications page of the Committee’s website.

FST numbers are generated by the evidence processing system and so may not be complete.

1. ArroGen Forensics (FST0010)
2. British Standards Institution (FST0029)
3. Chair of the Home Office National DNA Database Ethics Group (FST0005)
4. Criminal Cases Review Commission (FST0006)
5. Dr Gillian Tully (FST0004)
6. Estatom Systems Ltd (FST0017)
7. Forensic Access (FST0026)
8. Forensic Science Northern Ireland (FST0023)
9. Forensic Science Special Interest Group (FST0024)
10. Home Office (FST0031)
11. Keith Borer Consultants (FST0011)
12. Linked Forensic Consultants Ltd (FST0003) and (FST0028)
13. Minister for Policing, Fire and Criminal Justice and Victims, Home Office (FST0032)
14. Minister for Policing and the Fire Service, Home Office (FST0033)
15. Mr Angus Marshall (FST0007)
16. Mr David Royle (FST0014)
17. Mr Tiernan Coyle (FST0027)
18. Peter Merrill (FST0016)
19. Peter Sommer (FST0030)
20. Principal Forensic Services Limited (FST0022)
21. Professor Martin Evison (FST0018)
22. Prospect (FST0020)
23. Research Councils UK (FST0025)
24. ROAR Forensics (FST0015)
25. Royal Society of Chemistry (FST0019)
26. Royal Statistical Society (FST0009)
27. Triple A Forensics Ltd (FST0013)
28. United Kingdom Accreditation Service (FST0008)
29. University of Dundee (FST0021)
List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the publications page of the Committee’s website.

The reference number of the Government’s response to each Report is printed in brackets after the HC printing number.

**Session 2016–2017**

<table>
<thead>
<tr>
<th>First Report</th>
<th>EU regulation of the life sciences</th>
<th>HC 158</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Report</td>
<td>Digital skills crisis</td>
<td>HC 270</td>
</tr>
<tr>
<td>Third Report</td>
<td>Satellites and space</td>
<td>HC 160</td>
</tr>
</tbody>
</table>

**Session 2015–2016**

<table>
<thead>
<tr>
<th>First Report</th>
<th>The science budget</th>
<th>HC 340 (HC 729)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Report</td>
<td>Science in emergencies: UK lessons from Ebola</td>
<td>HC 469 (Cm 9236)</td>
</tr>
<tr>
<td>Third Report</td>
<td>Investigatory Powers Bill: technology issues</td>
<td>HC 573 (Cm 9219)</td>
</tr>
<tr>
<td>Fourth Report</td>
<td>The big data dilemma</td>
<td>HC 468 (HC 992)</td>
</tr>
<tr>
<td>Fourth Special Report</td>
<td>The science budget: Government Response to the Committee's First Report of Session 2015–16</td>
<td>HC 729</td>
</tr>
<tr>
<td>Fifth Special Report</td>
<td>The big data dilemma: Government Response to the Committee's Fourth Report of Session 2015–16</td>
<td>HC 992</td>
</tr>
</tbody>
</table>