Select Committee on Science and Technology
Corrected oral evidence: Forensic Science
Tuesday 13 November 2018
3.20 pm

Watch the meeting

Members present: Lord Patel (The Chairman); Lord Borwick; Lord Griffiths of Fforestfach; Lord Hunt of Chesterton; Lord Kakkar; Lord Mair; Baroness Manningham-Buller; Baroness Morgan of Huyton; Baroness Neville-Jones; Lord Oxburgh; Lord Renfrew of Kaimsthorn; Lord Thomas of Cwmgiedd, Lord Vallance of Tummel; Baroness Young of Old Scone.

Evidence Session No. 8 Heard in Public Questions 81 - 89

Witnesses

Danyela Kellett, Forensic Services Manager, Lancashire Constabulary; Carolyn Lovell, Head of Operations—Crime Scene Investigation, Hampshire Constabulary; David Tucker, Faculty Lead, College of Policing.

USE OF THE TRANSCRIPT

This is a corrected transcript of evidence taken in public and webcast on www.parliamentlive.tv.
Examination of witnesses

Danyela Kellett, Carolyn Lovell and David Tucker.

Q81 The Chairman: Good afternoon, ladies and gentleman. Thank you very much for coming this afternoon to help us with our inquiry; we much appreciate it. Before we start—and we are putting on the broadcast now—would you mind introducing yourselves and saying who you are, from my left, so that we get it on the record? If any of you wishes to make an opening statement, please feel free to do so. If you do not, we will move on to the questions because we have lot of questions to explore with you.

Danyela Kellett: I am the forensic services manager for Lancashire Constabulary.

Carolyn Lovell: Good afternoon. I am the operations manager for Hampshire Constabulary.

David Tucker: Hello. I am the lead for crime and criminal justice at the College of Policing.

Q82 The Chairman: I assume that none of you wants to make an opening statement. Might I make a start on the questions? I want to explore three things with you in relation to private and in-house forensic providers, and to explore how this relationship between forensic practitioners, investigating police officers and the CPS is maintained. Are there any conflicts? Also, what input do forensic practitioners have in advising what types of forensic analysis might be most appropriate to use in a given case? In that respect, are the forensic practitioners embedded into the investigation?

Danyela Kellett: In Lancashire Constabulary, we insource about 40% of the forensic work that we do. We have a drugs unit, a footwear unit and a unit that does some of the biological/body fluids-type examinations. We outsource all the analytical work—toxicology, and DNA profiling. Because the majority of the scientists we use work in-house, they have quite a good working relationship with police officers and help them to set a forensic strategy, advise them on what items can be examined, how to prioritise the work. They are fully involved and usually it is the same scientist who will attend the crime scene right through to giving the evidence at court. We take a holistic view of a crime.

Carolyn Lovell: In Hampshire Constabulary it is similar and we probably insource about 40% of our work. We have a number of partnerships within Hampshire Constabulary and we also work with Hampshire Scientific Services, which is a county council service. We insource all our toxicology. We have drug experts in-house and we have our own DNA screening environment, so we insource a certain element of analytical work. In respect to how we work with the police, we are embedded in the investigative locations with the investigators. For all levels of crime, very similar to Lancashire, we set our forensic strategy with them, as a forensic practitioner, submissions manager or quality manager,
depending on the crime type really. We set that direction straight from the start of the particular case.¹

David Tucker: From the college perspective, we do not have a link directly with the operational delivery of services at crime scenes, but we would seek to set the training structure and the national policing curriculum. So we would seek through the curriculum and through the learning standards that we develop to create those links, so that investigators know what to look for and how they can liaise and work with crime scene investigators so there is a whole proper coverage of the investigative process of which forensics forms a part.

Baroness Neville-Jones: Could I ask a follow-up question? Neither of the ladies mentioned what you do when you have digital evidence that is key to the investigation, which must surely be an increasing part of any modern crime scene. You did not mention that as being in-house.

Carolyn Lovell: It varies across the UK. In Hampshire we have our own digital unit, a digital forensic group, and we do digital work, but it is not the same across the UK. Some digital units sit outside scientific services or a forensic unit.

Danyela Kellett: This is outside my portfolio, in a separate unit within Lancashire.

Baroness Neville-Jones: So where would you go in Lancashire now?

Danyela Kellett: We have a digital forensic unit but it is not part of the scientific support unit. We do most of the work in-house and we outsource some of the more specialist work around CCTV comparison, but a lot of the stuff around recovering work from phones, downloading information from phones, we do in-house.

Baroness Neville-Jones: The definition of in-house is in your department in the police?

Danyela Kellett: Within the constabulary but not in my department.

Carolyn Lovell: We are a little different. They are in-house, but there are other units within the constabulary that will also be downloading phone material. There are digital investigation teams and investigators because obviously, as you mentioned, the demand is significant, so we have different kinds of triage processes in force.

Lord Thomas of Cwmgiedd: For some areas of forensic science, for

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¹ The witness sent this extra information following the session: I think it also needs to be recognised that due to the necessary requirements of ISO 17025 in 2014 there was an intrinsic need to establish a DNA screening environment as we could no longer open an exhibit for early assessment/screening. This presented real limitations on the work that we undertake particularly for serious and major crime and would not be proportionate to send all to a forensic service provider (as we had never previously done this). The screening facility supports the early assessment of multiple seizures of evidence from a crime scene and allows us to progress with a forensic strategy with key items for examination. Also less serious crimes through to other services within our own units for example a phone that requires swabbing for DNA will need to be progressed through to the phone unit for down load.
example fingerprints, the expertise is largely embedded within the police. What work do you do for the defence—not, obviously, in your own constabularies but elsewhere?

Carolyn Lovell: I do not believe that we do any work for the defence.

Danyela Kellett: I do not think we do either. The defence will request to come and observe work.

Lord Thomas of Cwmgiedd: No, I mean advising them.

Danyela Kellett: No.

Lord Thomas of Cwmgiedd: What does the College of Policing do about fingerprinting, in particular, because there is a view that all the expertise lies in the police force? What do you do to help the defence?

David Tucker: The investigation is about gathering all the evidence, whether it points towards or away from the allegation. The work that the forensic scientist does will form part of the body of evidence, and that is available either for the defence or the prosecution, and will come out as part of the disclosure process. Clearly, police resources would not be commissioned specifically by the defence but, as Carolyn said, they are able to oversee that. The position of policing is to do a fair and balanced and unbiased investigation. There is then a decision about whether to prosecute, and it becomes partisan at that point, but the investigation should be an expedition to gather all the evidence on both sides.

Danyela Kellett: Also, although my staff are employed by the police, we see ourselves as working for the courts as expert witnesses, so working for justice and not on behalf of the prosecution per se. If we found something that was helpful to the defence, we would declare that and that would be considered in our statements.

Q83 Lord Griffiths of Fforestfach: How do you come to a decision as to how much you do in-house and how much you put out to the market? What are the risks and the benefits from each approach?

Danyela Kellett: We have grown organically within Lancashire. Some of the work that we outsource—DNA profiling and toxicology—is quite complicated to do and there are also efficiencies of scale, so to do it on a small scale for one force would not be efficient in terms of either turnaround times or cost. The work we do in-house tends to be assisting in the investigation in the early stages, such as drugs analysis, footwear, fingerprint comparisons, examining exhibits to look for evidence. We do all of that in-house where we feel it is quite useful to have that dialogue between the investigators and the scientists.

Carolyn Lovell: We are similar in approach. We do not do any DNA technology or anything that we would class as a complex crime examination. That would go to the forensic service providers so that they can provide the holistic examination of that item. We tend to take the approach that it is a screening tool and it works through a sequential process with some of our other units. Where we have an opportunity for a DNA recovery and a specialist lighting or chemical examination, to put
that process within a short timescale for investigative purposes, we would put that in-house. We manage that as part of the forensic strategy. It would be managed on a risk-based approach around that particular criminal investigation. If we felt that it needed to go to a forensic service provider, we would submit it to the forensic service provider for that whole examination.

Lord Griffiths of Fforestfach: Thank you for the answers. Do you ever do a review every so many years of how much you are putting on to the market and how much you are doing in-house, and what the pros and cons are?

Danyela Kellett: We have had a significant number of reviews over the last few years. We are also part of a consortium of forces, so we are in contracts with the providers as to how much work we can submit to them and what kinds of work. That is reviewed constantly both by us and the contract management team, which is independent of Lancashire Constabulary.

Carolyn Lovell: We sit on exactly the same consortium and we review it on a yearly basis, and even in current time. We consider how much we have with our current providers, their current SLAs and whether that is having an impact around our service delivery. We are constantly focused on it, primarily because the timescales around the courts have changed and become much shorter. We really need to keep an eye on that because it can become a significant issue in relation to getting our evidence to court. We really have a close view on it at the moment.

Lord Griffiths of Fforestfach: Can I ask a further question about when there is a scandal in a private provider? Do you ever have scandals, for example, in the in-house providers? If a private provider goes out of business—how do you rate the risks of those things happening, as opposed to the risks if they were in-house?

Danyela Kellett: We have had a couple of issues in the marketplace over the last few years anyway. The two main risks for me are, first, there is a reputational risk to forensic science as a whole. If there is a suggestion that some impropriety has occurred in a particular organisation, it often becomes an issue for the whole country and all forensic scientists, so there is that concern. Because the marketplace is so small, and there is such limited capacity, when there are issues and a provider is no longer able to provide that service, there becomes an issue around the speed that we can do the work and whether there is any capacity at all to do that work, which impacts on all the criminal investigation.

Lord Griffiths of Fforestfach: I am sorry, Mr Tucker, I did not ask you.

David Tucker: We have had experience of this where there were national implications, and the national policing lead from the operational side took control of that and made arrangements to ensure that there was still provision in the marketplace and that any issues that arose in relation to existing cases were managed. There is a good network across forensics throughout the country, and there is capacity in the market to
smooth out any problems. However, I do not think we should underestimate the risks of a market-based approach to this. If you only have single providers, whether they are public or private, the same issues arise: it can reduce the amount of flexibility in the system.

**Lord Griffiths of Fforestfach:** Especially, say, if there was a budget cut and you had to cut somewhere in the system, you would have the same sorts of problems about the profit margin being reduced in the private sector.

**David Tucker:** Yes.

**Lord Vallance of Tummel:** Can you tell us a little about the nature of the contracts with these private providers? Are they one-off per job or longer-term contracts which might give them a bit more security? How does it go?

**Danyela Kellett:** They are over three to four years. There are a number of forces in the North West/South West consortium and we all bid together. Each organisation that wants to be considered puts in a tender whereby it will agree turnaround times; it has to be accredited to ISO standards and it will also offer a price for various products. You may pay a particular price if it was a case that just involved footwear evidence, and a different price if it involved different kinds of evidence. Each force commits to how much work they want to send of each different type, and we agree which providers are going to be used. It does not go to one provider—certainly not in our consortium; the work is parcelled out. It might be that 60% of the work goes to one provider and 40% to another. Over the three to four years that price is agreed, the SLA is agreed. If they do not fulfil that agreement, they are subject to paying service credits to the force where they have failed to meet the terms of the agreement.

**Lord Vallance of Tummel:** So they have to be on hand for four years, as it were, but they are paid according to the volume of business and the price of that business over that period.

**Danyela Kellett:** Yes.

**Lord Vallance of Tummel:** So it is conceivable that in a competitive setup where they are bidding against each other, somebody could get nothing or very little; is that right?

**Danyela Kellett:** Yes.

**Baroness Young of Old Scone:** We have heard from other witnesses that there has been about a decade of price reductions and that has impacted on the private sector providers. Presumably, since you are virtually in competition with them, you are also experiencing the impacts of that. Can you tell us how it feels right now regarding where the price level is pitched?

**Carolyn Lovell:** I do not think the price level can go any lower. There have been discussions around this. I saw that the private forensic providers were here a number of days ago saying that they needed to have an increase of 20% to 30% from the police. It is probably at the
lowest it can possibly be, seeing where they are. In respect of increasing
it, from an organisational perspective, we would have to review what we
submit and perhaps no longer submit certain aspects of our work to them
because we do not have any other financial resources. Our budgets are
being restricted and they will be restricted again next year, so we will
have to review what we do. It is really quite tough, I would suggest,
where we are now.

**Baroness Young of Old Scone:** Are you at the point yet of worrying
about quality and standards as a result of price restriction, both in-house
and through the private providers?

**Carolyn Lovell:** I think the answer to that is no. Regarding our
consortium and our plans, our assurance is that our providers are
accredited services. Some of them have ISO 17025 and ISO 17020. We
are the same in respect of what we have currently, or are working
towards them. These things happen. We have non-compliances and they
have an impact on the working environment, but they happen anyway
even within a quality environment, and we have seen that happen.

**Danyela Kellett:** When we have had budget cuts over the last 10
years or so, certainly the forces I am aware of have ensured that they maintain
the quality and, as Carolyn said, it may be a case of stopping doing
something. We will make an assessment and for a less impactful crime
such as a burglary that is not in a dwelling, we may reduce the amount of
forensic work we do so that we can focus on crimes against the person or
burglaries in dwellings, and do more of the work in those areas. It is
more of a reduction of what we do rather than trying to cut corners in
terms of the quality.

**Lord Vallance of Tummel:** Given that it would be pretty disastrous for
you if one of the big players was knocked out, would it be a more secure
deal to have, say, a retention fee for each of the big players and a lower
price for volume of individual case? That would give them at least some
kind of security for the future, and some kind of guarantee against losing
one of them.

**Danyela Kellett:** I am not entirely sure how that would work because I
am not a business person. I know that at the moment there is a
guarantee to some extent over the three years of the contract that we
will submit a minimum amount of work to them. There is some
guarantee. There is no risk to them that we will stop sending work
tomorrow. That is part of the nature of the contract.

**Baroness Neville-Jones:** May I just pick up on that point? Assuming for
a moment what you are saying about the effect of cuts, from what I
understand you to say, you believe that quality has not been prejudiced,
although it sounds to me as if quantity has been. What about speed?

**Carolyn Lovell:** Yes. One of our forensic service providers went out of
business for a short period this year and it has had an impact on our
turnaround times because we have had to move our service to another
forensic service provider with whom we have not secured a service. That
has definitely increased turnaround times. Some services have limited
experts in a particular area of business, toxicology being one. At the moment, we are experiencing extended SLAs in respect of that, which has a knock-on effect on where we are with the court system.

**Baroness Neville-Jones:** Absolutely. Can you give us any guidance as to what the typical timescale is and how it has been extended?

**Carolyn Lovell:** The general turnaround time is 21 days for a general case. For toxicology, at the moment we are experiencing eight-week delays for our results to come back, depending what they are. That is where we are with the information we have. It would be the same for yourself.

**Danyela Kellett:** Yes.

Q84 **Lord Mair:** Can I ask about accreditation and for your views on the two ISO standards, 17020 and 17025? Ms Kellett, you have given written evidence and made your view pretty clear to us that you do not think that these standards are fit for purpose. Can you tell us a bit more about that?

**Danyela Kellett:** I agree absolutely with the principle of accreditation, but there is a clue in the name, and the standards are not set up specifically for forensic science. ISO 17025 is around testing in calibration laboratories and ISO 17020 is around bodies conducting inspection. Some aspects of those standards are quite difficult to evidence within a forensic environment and, because there is a requirement to evidence every section of the standard, sometimes you feel that you are almost performing a box-ticking exercise by having to comply with certain areas that do not seem relevant. The balance of effort that goes into meeting that part of the standard—as opposed to the part around whether we are getting the right work, conducting the correct examinations and getting a fair and balanced answer in support of criminal justice—sometimes seems to be a little lost in the weeds in the bureaucratic areas of those standards. That is my personal opinion. I do not know whether you would agree, Carolyn.

**Carolyn Lovell:** In part, yes. Definitely in respect of implementing 17025 and working towards 17020, there is a knock-on effect because of the processes and the fact that it is taking more time. Even in-house our service level agreements are not being met because of some of the processes we have to put in place. I would probably be in a little bit of disagreement because I believe that we need standards to professionalise our service. There are a number of ways to do this in relation to validating and being able to ensure that our tests are repeatable, exactly the same as they are in a forensic service provider environment. There are some positives in working towards a national perspective across our profession. However, based on where we are in our organisation, we are attempting to deliver 17025 and 17020 against a backdrop of fewer resources and significant organisational demand, and that creates quite an impact.²

² The witness sent this extra information following the session: The challenges presented to the police have occurred at the same time, austerity measures have led to a fewer
**Danyela Kellett:** Because the standards are not necessarily fit for purpose for forensics, there are a number of additional documents to provide clarity. There are the codes of practice and conduct that the Forensic Regulator put together with a number of appendices. There is a specific appendix about forensic laboratories and you will find that they have to meet a number of different standards. Although they are complementary, sometimes they are slightly contradictory and sometimes they do not always fit with the legislation either. It makes it incredibly complicated trying to meet the requirements of all the different standards. It seems it would be better if there was a standard that was specifically for forensic science that covered the issues that were relevant for forensic science, rather than trying to shoehorn us into something else.

**Lord Mair:** Is that what you are recommending? Is that what you would like to see?

**Danyela Kellett:** Yes.

**Lord Mair:** The impression we have from the written evidence and from what you have just been saying is that the whole business of accreditation is rather patchy and not very satisfactory. What does that mean in terms of what we were discussing previously about the market? Is there a risk of privately run organisations not being up to sufficient standard with this rather patchy accreditation process?

**Danyela Kellett:** Accreditation has been portrayed as, if you have accreditation and meet those quality standards, it minimises the risk of anything going wrong in forensic science. Although it helps to safeguard against something going wrong, you can never completely legislate against somebody deliberately or accidentally making a mistake. In my opinion, some of the pressure in the marketplace is because they are, like us, having to devote a lot of resource to meeting those standards and maintaining the accreditation. For them, it is a requirement to be able to enter the tendering process. A lot of the resources now are going towards that accreditation rather than to performing the science.

**Lord Mair:** It is clear how the accreditation works for analytical testing equipment, but how does it work for the experienced forensic scientist who is offering a lot of interpretational evidence and putting it in context for the courts? How is the accreditation addressing that kind of skill?

**Danyela Kellett:** There is a requirement to demonstrate that somebody is competent, so you would have to show what training and assessments they have had. Ongoing competence also has to be demonstrated, so they must manage a minimum number of cases and every case should be checked by another individual who is also competent. Proficiency testing...
is performed annually. In some areas we have blind verification as well. That is a recent addition to fingerprinting because that is mainly based on the expertise of the individual performing the comparison. There is now a blind verification whereby the person who checks the results has no knowledge of what the original examiner did. We are constantly showing as transparently as possible that that person’s findings are valid, and that they are competent in the field they are an expert in.

The Chairman: Lord Vallance, did you want to come back?

Lord Vallance of Tummel: No, thank you.

The Chairman: Lord Renfrew.

Q85 Lord Renfrew of Kaimsthorn: I would like to ask about the Forensic Science Regulator and what role you think she should have. The position has been running for about 10 years now. What statutory powers should she have? The Government announced their policy two years ago that she should have statutory powers, but that has not happened yet. How would it improve matters if there were those statutory powers?

Carolyn Lovell: I think that the Forensic Science Regulator should have statutory powers because it would give her some extra influence to get the ISO 17025 standards implemented. From a policing perspective, she would probably say we have been slow in working towards the deadlines that she has provided. However, from the organisational point of view of a department implementing them, in some of the more challenging areas, particularly digital, we would like to see the Forensic Science Regulator have a little more flexibility in her approach. Currently, we have significant demands operationally and we do not have the resources available to focus on achieving them. She probably would say that we should have been working towards the standards over a number of years, but for the police as a whole our budget has been significantly cut and demand is going up. We are competing all the time to try to deliver it and there is a real desire to deliver that accreditation in those timescales, but we would like her to have a bit of flexibility.

Danyela Kellett: I would agree. The background of the majority of the staff that I am aware of in the Forensic Science Regulator’s Office is that of the forensic providers, so there may not be a full understanding of the situation within policing and the way that budgets work and resources are allocated. We are not just a forensic provider; there are numerous other demands on a constabulary as a whole and on the budget. There is perhaps not so much understanding of how that works. I agree with mandatory powers. The lack of mandatory powers has perhaps caused some of the delays in police forces achieving and meeting those deadlines because there has not been any compelling driver to get them, unlike for the providers who had to have accreditation to be able to enter the tendering process.

Lord Renfrew of Kaimsthorn: So it is mainly a question of timing. You have indicated that there will be a pressure to get things done more punctually. In terms of what gets done or the quality of what gets done, would there be a comparable impact if she had statutory powers?
Carolyn Lovell: I think we have a challenge. Obviously, she needs statutory powers to be able to enforce, potentially. There are some challenges in the national landscape around where police forces are with accreditation. Flexibility is needed so that if a police force has not reached the standard or is working towards it, it understands the implications of not having it. At the moment, nationally in the UK there are only five fingerprint bureaux that have accreditation and the timescale for delivering the others is now. If the statutory powers are introduced and you are no longer able to do comparative work, what happens? Do we no longer do that work? Does it stop? Where does it go? In respect of the flexibility, yes, we need it, but we also need to know what the statutory powers look like. The policing environment will be put under significant pressure if the timeline for fingerprint bureaux is maintained because, as you can see, there are only five there. There are also a number of issues around the technical assessors and their ability, in the UKAS environment, to get into the police forces to assess them within the timescale. There is a bigger demand there, too.

Lord Renfrew of Kaimsthorn: Mr Tucker, do you have any thoughts to add on that?

David Tucker: The whole tenor of the debate demonstrates that we must see forensics as part of the whole system. The principles that we must adhere to, and that the college would be taking forward as part of the system, are around the integrity of evidence so that everybody can be confident that what appears in court is reliable. This goes for the digital world and so we do some training around digital. We provide products for front-line investigators. One of the questions around the evidence now is the integrity of the dots and dashes that come off a computer system, how you accredit that and how you can be sure that that is the evidence that is going in court as well. We need that. The principles are broadly similar and we need to work together as part of the whole structure to make sure there is integrity of the whole system; the Forensic Science Regulator, with powers, would need to be part of that.

Baroness Morgan of Huyton: It would be helpful if you could write to us. Several times you have said demand is up and budgets are down. It would be helpful to have some figures around that just so we understand the size of the issue you are talking about.

The Chairman: Please send it in to us and it will form the basis of the evidence. Baroness Neville-Jones.

Baroness Neville-Jones: I have a final point on the regulator. I have the feeling from what you were saying that it is not just a question of the powers the regulator has but the advice she is getting. Do you feel that she is surrounded by the right advice? I rather caught from something that you said that you feel she does not necessarily appreciate all the pressures on the police, which are both providers and consumers of forensic material and evidence, and that she is not necessarily entirely au fait with the challenges you face.

Danyela Kellett: The members of her team that I am aware of are all from the Forensic Science Service or other forensic providers. As far as I
am aware, they have not worked in policing, and, although we are doing
the same types of analysis and work, the dynamic is different in policing,
and I do not think she fully appreciates that.

Carolyn Lovell: I agree.

Baroness Young of Old Scone: Can we turn to the Transforming
Forensics programme? Is it truly comprehensive? Is it the answer to a
maiden’s prayer basically and is it going to sort everything out, or are
there whole elements of forensic services that it is not going to address?
Are there gaps in what it is going to cover? How confident are you about
it delivering and how comprehensive is it going to be?

Carolyn Lovell: It could be. The Transforming Forensics programme has
the opportunity to transform the forensic landscape, but there are
numerous layers of our forensic environment to address. From a
transformational perspective, if they align our quality environment and
our training across all our forensic disciplines, and we have a national
body that will give that information, there is an opportunity there. The
challenge Transforming Forensics has is, again, the competing demands
we have in our own organisations against the changes that the police
want to make to their own IT frameworks and platforms. Transforming
Forensics wants to make some considerable changes that could be quite
revolutionary. We need significant buy-in by our own chiefs and
Transforming Forensics needs to be able to get in and deliver that, and
there have been some challenges around doing that. But if we had that
and the platform was there, there is a real opportunity to nationalise
what we do.

Danyela Kellett: The Transforming Forensics project, in some areas, has
been a little too ambitious. Initially, they were trying to aggregate forces
into regions. That is difficult to do because of the different budgets and
priorities of forces. Some forces may make it a priority to deal with
burglary for a period and they may target more resources towards that.
That makes it difficult to have a regional facility. Also, police forces are at
different levels in terms of what they deliver in-house and what they
outsource. Hampshire and Lancashire probably have more insourcing
than the majority of forces. Some forces only do fingerprinting work in-
house. You are not starting from a level playing field, so to get that
consistency and regional working would be very difficult without there
being some losers as well as winners.

I also think that they are perhaps not ambitious enough, in that the
critical issue at the moment in the environment is the marketplace—the
fact that we have private companies working on forensics with reduced
budgets and all the issues that we have discussed earlier. They perhaps
should be looking at what needs to be done around that marketplace,
where we can fill the gaps, and whether the private marketplace is even
the right position to be in with forensic science. Probably because of the
steer they were given from the Home Office, they have moved away from
that and tried to look at policing, because they are a police
transformation project. There are some real opportunities, as Carolyn
said, to get standardisation, but it depends how far they want to go and what the appetite is.

David Tucker: From a college perspective, Transforming Forensics is practitioner led and it is responding to the marketplace, and we are part of the discussion about how we can support that. There seem to be some opportunities for developing more standardised techniques. The quality assurance might be simpler in that environment and might release some resource in doing that. “Ambition” is the word that struck me when I was looking at the paperwork for this. It is massively ambitious and if there is a buy-in from the Police Service to do that, the college, from our position around developing training standards, would be supportive and give whatever help we can.

Lord Vallance of Tummel: You mentioned the regions which are presumably off the table at the moment, but both of you also mentioned earlier that you were members of the consortium. Is it a halfway house towards a region?

Carolyn Lovell: The consortium comprises 19 forces in respect of the forensic service providers’ contracts, but regionally there are different things that different organisations or police forces work with. For example, Hampshire works with Thames Valley Police. We have bilateral agreements already in respect of our IT and other joint operational services with the police anyway. We currently are examining with Transforming Forensics a regional opportunity with TVP, Surrey, Sussex and Hampshire to amalgamate the fingerprint bureau and some of the processes they want to deliver there. It varies across the UK as to what services have been regionalised and what have not. Probably the most important issue around delivering it is the fact that our IT platforms are not aligned, and that is what we are trying to achieve currently.

Baroness Young of Old Scone: If there was an opportunity as a result of any review, including by us, to give a view about whether we ought to go back to having a totally in-house state forensic service, either at a national or a regional level, what would your response be?

Carolyn Lovell: In respect of working in an organisation for quite a considerable period where we had one, we can see that research has been diminished since we have not had a national forensic science laboratory. We do not tend to look at things now on an organisational or operating level. There is not the opportunity to do so much research around that. We have lost a lot of our services in respect of other evidence types—fibres, arson investigation. Some of the more niche expertise has gone because the market has been really focused on DNA. We have crimes and investigations that DNA does not solve. We still seek those experts, but they are in a minority, and, previously, we used to be able to have those and look at a far more holistic approach to our examinations. I probably would say I was an advocate for it in what I am seeing currently.

Danyela Kellett: I would agree. I used to work for the Forensic Science Service some time ago and when I joined, because it was a free service to police forces, there was a lot of waste in the system, and everything
was examined because we could do everything. Some of that focus on best value and forensic strategies was the right thing to do and should have been done. However, the position we are in now—where we have more of an oversight on what is worth doing, what is best value, what is going to give us the results we need in a case, combined with a national forensic provision, as Carolyn said, with niche examinations available and some research and development in place—is a better system than a focus on a competitive market, where there are profit margins to be made by the companies involved.

**Baroness Manningham-Buller:** My question is building on what Lord Vallance said about regional hubs and consortia. Scotland has one police force. Do you happen to know how they do forensics? Do they have one centre in Glasgow, or what?

**Danyela Kellett:** They have one forensic service provider, but they have a number of labs. They have one in Glasgow, one in Edinburgh and one in Aberdeen. They specialise in different areas, so one will specialise in chemistry and one in DNA.

Q87 **Lord Kakkar:** I would like to turn to the question of research that you have just raised. As things are currently organised, is there now a gap between the understanding of the coalface where forensic science has to be delivered and the research outputs of universities and those developing forensic science products in the private sector?

**Carolyn Lovell:** I think Lancashire is similar to Hampshire. On the back of the journey that we have gone on, Hampshire is in partnership with a university. We sit down and identify operational issues and, working with the university, manage to complete some research to address some of those issues. From a national perspective, the issue is about sharing that information. We have been working over the last few years to build a network of universities to share that information with practitioners, and Research for Justice provides an opportunity to share information with other practitioners. Yes, there is definitely a gap between dealing with what we deal with at the front end, at the crime scene, and being able to continue with research that supports us.

One of the areas where we experience significant issues is in DNA technology and the fact it is so advanced. We tend to experience mixtures in all the work that we do. There has been a significant increase and DNA results are really difficult to interpret in the courts and to interpret within a police investigation. That feedback and information needs to go back to the forensic service provider so we can resolve that before we move on to the next technology, because it is having an impact on what we do.

**Lord Kakkar:** There are two issues: first, the collaboration you have with your local university. How is that funded and facilitated? Is it funding from within your service that initiates that research or does the university seek funding elsewhere?

**Carolyn Lovell:** We would do joint bids with the university. We join as a partnership and we would seek to bid for innovative projects, depending
on what it is. We have done Home Office bids to look at certain research. We have worked with the forensic service providers to put some of their technology within our front-end services to test whether it actually works and trialled a number of other things within our environment. Our 17025 laboratories and processes have allowed us to do some research in those environments. Yes, the police fund some of it—a very small amount—but it tends to be bid-orientated with the university.

**Lord Kakkar:** In terms of the practical dissemination of research findings, how would you propose that is done more effectively to train forensic scientists?

**Carolyn Lovell:** We have published some of the research we have undertaken in scientific journals or police journals so that it can be disseminated among the professional community. We have also gone to forensic science conferences to deliver some of that working practice so that it can be cascaded. We publish it on the network, Research for Justice, but that is new and has been developing over the last 12 to 18 months.

**Lord Kakkar:** Do you find that the volume of research output, its quality and the ability to disseminate the research has diminished since we have moved away from a national service to this more market-based approach?

**Carolyn Lovell:** Yes. As a practitioner I would continue for my own professional development to see what those changes are. Previously, we were sent quite a lot of that information around some of that work activity. We would be sat on working groups within our forensic science service to try to deal with those issues and move them forward so we can work within the criminal justice system. We do not tend to do that any more.

**Lord Kakkar:** Could we objectively demonstrate that change in the research culture between when there was a national service and the situation today? What might we look for by way of evidence for that? Would it be by published output, or how might one go about demonstrating that objectively?

**Danyela Kellett:** The only way you could demonstrate that would be through output in terms of scientific papers. The Chartered Society of Forensic Sciences produces a journal, for example. When the Forensic Science Service was in existence, many of those papers would have been written by or sponsored by people who were working there. Now you will find that a lot more research is done in universities. A lot of it is done overseas. It is perhaps a lot more of an academic, rather than practical nature. It is not answering a problem that practitioners have or an issue that we want to address, and is more from an academic point of view. I am not quite sure whether you would be able quantitatively to demonstrate the change.

**Lord Vallance of Tummel:** You have almost answered my question. I was going to ask whether there is an international dimension to this research and where it is. Is it in the United States or Europe, and how big
is it?

**Danyela Kellett:** I know a lot of research goes on in the United States, some within universities and some within their forensic science provision. In Europe there is the European Network of Forensic Science Institutes, and a lot of the member organisations of that organisation will do research. It does seem to be primarily universities and academic bodies now rather than law enforcement agencies, particularly in the UK.

**Lord Thomas of Cwmgiedd:** May I ask a brief question and not for answer now: would you be able to help us by reference to specific branches of forensic science as to where there were advances in the period up to privatisation and what has happened since then? You have mentioned fibres and DNA, but there must be other areas. I notice one of you is a specialist in footwear. Would you be able to tell us by reference to specific aspects of forensic science where the advances are not being made which were being made?

**David Tucker:** The college would find difficulty with the scientific base of this because our research is more on the social sciences. In the social science area, we have a “what works” centre for crime reduction where we publish academic research so that we can show what works and what does not. Evidence-based policing is central to what the college does. I wonder whether there is something to learn from that area. I appreciate that it is very difficult because there is not a similar policing-orientated scientific community that could take that forward. Perhaps it is a conversation we could have outside here about how we might be able to support that, but, as I say, our expertise and our research tend to be more on the social sciences side rather than the scientific sciences.

**Baroness Manningham-Buller:** That is not to diminish them. They may be equally important.

**David Tucker:** Of course.

**Baroness Manningham-Buller:** To follow on from Lord Thomas, you just mentioned fibres. It would be quite worrying to this Committee if there were a string of these things where there has been no further progress in areas where you judge there is the potential for progress.

**Carolyn Lovell:** If you look at it from an investigative point of view, particularly in a cold case review, you will be going back to those evidence types. For example, fibres may well solve the job over DNA. We take a holistic approach to our forensic gathering at crime scenes. The number of DNA experts has diminished and it probably petered out during that period when DNA advances were being made. The evidence is still compelling and we need it, but the experts are just not there.

**The Chairman:** Any evidence you can send us would be very helpful.

**Baroness Neville-Jones:** I would like to ask a question about training. Mr Tucker, when the College of Policing last March ceased to provide forensic training, you said, and I am quoting, “We have been working with the forensic portfolio and performance and standards group to
develop a sustainable solution for future learning, development and delivery”. What was the background to the college’s decision to cease providing that training itself? What is the group that you refer to, how is it composed and how well have things developed since then if these are the people who are now taking the issue of training forward?

**David Tucker:** The college undertook a review of all its training delivery and we want to contribute only in places where we can add a unique value. We found with our forensics delivery that many forces were not taking up our forensic training delivery. Those that were, found that our products were insufficiently targeted at their particular need. As you heard from Carolyn, they talk about different structures and different ways of delivering services in each force, and there are collaborations in some places. We have a 43-force structure and the college tried to do one monolithic training delivery which was, frankly, not working for the customers, and we took a view that we should step out of it because we were not delivering what was required. The group you referred to is a subgroup of the forensics portfolio of the National Police Chiefs Council.

**Baroness Neville-Jones:** What does that mean precisely?

**David Tucker:** The National Police Chiefs Council has a number of business areas.

**Baroness Neville-Jones:** I understand that.

**David Tucker:** Underneath that, forensics is one area where there would be a national policing lead. The chief constable of Dorset is the current national policing lead. Underneath that they have a standards group and we are very closely working with them to ensure that the structure around training and standards is robust and delivers what the marketplace needs. We work with Transforming Forensics across the whole range of areas to make sure as best we can that there is a training provision that meets the needs of the marketplace, where the training standards applied are what is required to maintain the integrity of evidence going before the courts, and we support the competence of individuals so that the accreditation process can take place.

**Baroness Neville-Jones:** How is that work getting on?

**David Tucker:** There are more providers in the marketplace than there were when the college was the provider. There is a feedback loop that works with the forces because the responsibility for competence rests with the forces. They have to be assured about the competence of their practitioners and of their own competencies as a structure. Obviously, UKAS has a role in ensuring that all works properly. We are not aware that there is a problem with the training provision, but, if there were, we would work with Transforming Forensics to try to solve that and to ensure that the training provision is what is required by the marketplace, supported by our learning standards.

**Baroness Neville-Jones:** What is the relationship between Transforming Forensics and the lead chief constable and his group?
**David Tucker:** The lead chief constable is leading the Transforming Forensics work.

**Baroness Neville-Jones:** So it is one and the same thing in practice.

**David Tucker:** Yes.

**Baroness Neville-Jones:** What authority do any conclusions that that group might arrive at have in relation to all the constabularies?

**David Tucker:** This is the same across every area of policing. There are 43 chief constables and they and other chief officers are in charge of particular aspects of policing trying to take things forward, so you will have a crime committee taking you through that.

**Baroness Neville-Jones:** I understand that.

**David Tucker:** They work through the National Police Chiefs Council and gain agreement to take things forward. There is a very strong sense of cohesion around Transforming Forensics. There is a sense that things are needed to go forward, but you will still have to get 43 chief constables and the police and crime commissioners to support any work that you want to take forward that will have that national implication.

**Baroness Neville-Jones:** Can a chief constable of a given constabulary decide not to follow whatever the guidance is?

**David Tucker:** Yes, and that is the same in every area. There is a well-understood operational independence of every chief constable. There is local accountability through police and crime commissioners. There is a structure and the College of Policing sits centrally within that. We are a completely separate body from operational policing and from police and crime commissioners. We set standards in other areas. We do not in forensics because of the existing structures. We feel if we were stepping into that, we would only be duplicating and not adding value. We set standards in other areas. We write the guidance around domestic abuse, how you investigate missing children and so on.

**Baroness Neville-Jones:** By “we” you mean the college?

**David Tucker:** The college, yes. The college sets standards in most areas of policing. We do not in this area because of the existence of the forensics—

**Baroness Neville-Jones:** Has forensics become something of an exception to what would normally be the case in the college’s role in setting standards?

**David Tucker:** Yes. There are other areas—please do not ask me to give examples—where that would also be the case. We want to set standards in the areas where we can be effective and add some value to the process.

**Baroness Neville-Jones:** Do you think the situation is satisfactory?

**Carolyn Lovell:** Are you asking all of us?

**Baroness Neville-Jones:** Yes.
Carolyn Lovell: I would say no. From a forensic perspective, it is absolutely right, as David said, that we have some courses that we can license and deliver, and we are currently delivering one in Hampshire at the moment. However, if you look at some of the other forensic courses, we are all delivering it ourselves. David is right: some forces would not have necessarily gone to the College of Policing, and that decision might have been based on location and the fact there were other courses that were accredited, but now we are asking, “Where are we going to go?” The fingerprint community does not know where it can go at the moment. Certain things are popping up, but there are some real issues around knowing what the national standards are and the fact that police forces are looking at their own needs and delivering those within their police service, rather than taking a national view.

Moving forward, we need some sort of central governance around forensics and training so that we are all delivering to the same standard. Looking to the future, Transforming Forensics looks like the platform to deliver and it is trying to understand the current issues. Quite rightly, 43 forces have completely different standards. They all have different needs as well, depending on where their experts are, and we now need to consider those needs and what the future looks like for those individuals and plan ahead for the different technologies we are trying to implement. That needs to be taken into consideration because we are standing still without it, and we are all doing our own thing.

Baroness Neville-Jones: If I try to summarise what you have just said, it sounds as if there is confusion about what constitutes best practice and the right standard, and, secondly, it is going to be difficult to maintain consistency of practice across police forces.

Carolyn Lovell: Definitely across police forces because at present you have 43 police forces delivering their training, looking at their quality systems, and identifying and validating their processes, but what we do in Hampshire might be very different from what they do in Lancashire. Somewhere we need central governance to help us to deliver nationally, and we do not have that.

Baroness Neville-Jones: Do you think that has an impact on what happens in court?

Danyela Kellett: Because the College of Policing only recently stopped having that oversight over setting standards and suggesting best practice, there is still some consistency at the moment, but there is a risk of divergence—it has already started—between different forces. Although police forces behave differently and have different demands, pressures and political agendas, the way that forensic science is examined in the first instance is generally consistent. Some of the processes might differ slightly because of the pressures within a particular force, but the way CSI would perform at a scene—it may recover different items depending on the procedure in its force and its budgetary constraints—and the way it would recover items is standardised. There is a risk that that will start to diverge as we have more providers and there is no oversight.
Baroness Neville-Jones: What in all of this is happening to work on digital forensics and the resources devoted to it and the priority that it is given?

The Chairman: Could you give a quick response because Baroness Manningham-Buller is going to deal with it?

Baroness Neville-Jones: Apologies.

Baroness Manningham-Buller: I am very happy to give way to Baroness Neville-Jones.

Carolyn Lovell: It varies across police forces depending on where the digital forensics group sits. Within our scientific services we are looking to increase our staff within the digital forensics team. Organisations are looking at digital investigators outwith a policing environment, with triage and kiosk processes. Cybercrime is increasing and the challenge we have is around keeping on top of the technology, because it changes so swiftly within the digital environment. Also, it is about the retention of staff; the private sector is very active in taking our staff investigators because they can afford to pay a higher salary. We are trying to manage that as well. It is quite a competitive market for them.

The Chairman: Baroness Manningham-Buller.

Baroness Manningham-Buller: I think you have answered most of my question. We started with this subject because at the very beginning we talked about digital forensics. You have described some pretty familiar factors—shortage of skilled staff, inability to retain them, technology galloping ahead of you—and you are all trying in different ways to deal with those. Is there a national solution to that—it seems obvious to me that there might be—notwithstanding the independence of the 43 chief constables?

Danyela Kellett: For digital forensics?

Baroness Manningham-Buller: Yes, because of the complexity and the speed of change and the fact that getting and retaining the right skills, both in the investigations and in forensics, is going to continue to be very difficult, is it not—or am I leading you?

Danyela Kellett: I think you are right, and, certainly, with the speed with which the technology is developing, the ability for us to respond to that could be managed nationally. The issues around the development of technology are the same in every one of those 43 police forces. With both traditional forensics and digital forensics, there needs to be a combination of national governance and national and local delivery. Carolyn mentioned the kiosks, which can give you a quick answer if there is anything on a mobile phone or a device, and that can quickly be put into the investigation. Some of that work is more appropriately done within a police force whereas the more complicated investigations, as part of a more serious crime, could be done nationally or regionally, I believe.

David Tucker: That is the key. There are digitally enabled crimes that are at the top end, such as sabotage and cyberattacks, and those will always require very high levels of expertise. That is where you are most
likely to see new techniques emerging. As time passes, they pass down the pyramid and become more mainstream, so we need a process, and we are working with the National Crime Agency around how you do that. We need to look at the very secret and sophisticated techniques now and spot those that are going to be made more routine in the future. Crimes might leave a digital footprint, and a burglar going into a scene may not leave anything other than the fact that their phone has communicated with a router. Those are much more routine things and will always have to be delivered locally, and it will require greater nous.

At the college, we have training products which help particularly at the front line for people to develop those skills so they understand the opportunities. We provide training for what are called digital media investigators, who are like tactical advisers, and we do a suite of training courses for front-line officers, trying to equip them so they understand what the issues are. The speed of change is massive. We are going away now, almost, from delivering a training product and starting to address tradecraft much more. As things develop, rather than trying to do a whole training programme, we are doing a briefing because we know that what we know about one particular application today will change tomorrow. We need to be much more nimble. We are reviewing the whole of our digital offer at the moment to ensure that whatever the college is offering is up to date and meets the needs of all those different markets.

**Lord Vallance of Tummel:** We heard from earlier witnesses that one of the problems with digital is volume—the number of terabytes of information to go through—and a lot of this is looking for needles in huge haystacks, looking for individual words and names and so on. Would that not be better handled by a national bulk processing unit?

**David Tucker:** I suppose it depends on where the request comes from and how quick you need it to happen. I was very closely involved in all the developments around disclosure. One of the key issues there was the amount of data that courts were asking for from policing at very short notice. There are a couple of trials going on to use artificial intelligence to do those searches through mechanical means. In theory, that could all be done by a central set-up but it would require the investment and the agreement of all forces to do it. It would also, critically, have to be responsive to the needs of forces, and the needs of forces will vary. In metropolitan areas you might very well have a much greater need for digital evidence because there is greater coverage in those areas than others. Getting that balance right might be a challenge.

**The Chairman:** I think we have exhausted the time. Thank you all very much for coming today to give evidence. If, on reflection, you think there are some answers you might have given in more detail, please feel free to write in and that will be written evidence. Thank you.