



Science and Technology Committee

Oral evidence: [Legacy—Parliament 2010–15](#), HC 758

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Members present: Andrew Miller (Chair); Dan Byles; Jim Dowd; Stephen Metcalfe; Stephen Mosley; Pamela Nash; Sarah Newton; Graham Stringer

Questions 91-201

Witnesses: **George Eustice MP**, Parliamentary Under-Secretary of State for Farming, Food and Marine Environment, **Terence Illott**, Deputy Director, Marine Environment Strategy, and **Paul Green**, Operations Director, Veterinary Medicines Directorate, Department for Environment, Food and Rural Affairs, gave evidence.

Q91 Chair: Good morning, Minister, and welcome. Would your two colleagues introduce themselves?

George Eustice: Yes. On my left is Paul Green from the Veterinary Medicines Directorate and on my right is Terence Illott, who covers most of our work on marine conservation and marine technology.

Q92 Chair: Thanks very much for coming in. As you know, along with many other Committees, we are intending to produce a legacy report that is going to explore what we have done during this Parliament and to what extent recommendations have been adopted, whether they have been effective or not, and to leave some messages for our successors to consider how much further they should push an incoming Government on the topics in question. One of our earlier reports was on marine science. The Government acknowledged that a 10-year implementation plan, reviewed periodically and updated annually, for its strategy “would strengthen existing approaches”. Is there now a formal plan? If not, how are you going about ensuring that the marine science strategy is delivered?

George Eustice: If I might just kick off and then Terence might come in with some of the detail. This work is led by the Marine Science Co-ordination Committee that we have in place. The working groups have been looking at the implementation of strategy in recent months. We expect them to come forward with an agreed plan in about March 2015. The key areas for us at the moment are the Marine Strategy Framework Directive. That is a very big area for us. We have done the first two phases of that. A third one is coming up.

That is going to be a key area. Another key subject they want to look at is understanding ecosystem change as well. Finally, they are doing a piece of work on new monitoring technologies, which could be of particular interest in fisheries. That's the plan.

Q93 Chair: Can I just pick you up on that? Is the document that is to be published the promised document from July 2013—we were told about an ongoing review and details of its findings would be published—which is to be appearing in March?

George Eustice: Terence, is that the same one?

Terence Illott: Yes. The review of MSCC was completed and that was published on the MSCC site. The implementation plan for March will be a summary of what we want to do in the future. For example, almost as we speak today, the MSCC group that looks at the co-ordination of science is going through all the areas in the marine science strategy, doing a little assessment of whether it thinks things are well co-ordinated or not, putting a green rating against things that it thinks are pretty good but identifying the topics that it will want to look at in the future. The one in March will be the next-steps implementation plan.

Q94 Chair: When in March are you expecting to publish? I am thinking in practical terms, in terms of drafting this report.

Terence Illott: There is a meeting of the MSCC in March, so towards the end of March we would hope to finalise that and show it to Ministers first.

Q95 Chair: If there are any preliminary documents, it would be helpful to have them to help us because of the timetable of our work. I understand that there is only one marine industry representative on the MSCC versus quite a lot of Government Departments and agencies. Is the balance right?

George Eustice: When you had my predecessor, Richard Benyon, before the Committee earlier in the Parliament, at that point he highlighted the fact that there were no industry representatives. It was one of the areas that he wanted to plug. Since then, there is now a sea-fish industry representative who is on the panel. I do not think it is surprising, in a way, that it is dominated by people with a scientific background, in that it is about co-ordinating, after all, scientific activity. We have rectified that deficiency by putting a representative of sea fish on. They also adopted somebody from Natural Resources Wales to the committee as well.

Terence Illott: You also need to note that one of the sub-committees is the marine industries liaison group, which has representatives from across the marine science industry, people like the renewables industry and some of the seabed users group. Its chair, Phil Durrant, is now a member of the MSCC.

Q96 Sarah Newton: On that particular point, one thing that our inquiry recommended was that a lot of marine science is commissioned by people who are exploring the seabed. I believe you talked about offshore renewables. It could be people dredging. There is a lot of data collected for the Marine Management Organisation's licensing process. One of our recommendations was that that evidence collected, after a suitable period of time because some of it has commercial sensitivity, should be added to the collective knowledge alongside, for example, research done by CEFAS or by Natural England, so that there was a collection of more scientifically robust data to help marine planning. What consideration has been given to the implementation of that recommendation?

Terence Hott: The Marine Management Organisation has been working with several industries—indeed, the Crown Estate has a marine environment portal—to add more information through that Crown Estate portal and, indeed, through MEDIN, the marine environment data and information network. For example, the aggregates industry has had a series of new licences and those data have been added to those systems. To follow that up, to go across the board, two sub-groups of the MSCC—the monitoring one and the industry one—are now commissioning a cross-cutting study on learning from that and what more could be done, such as seeing if the example of industries like aggregates can be picked up elsewhere, so it is gradually moving forward.

Q97 Chair: I remind you, Minister, that in the science and innovation strategy, which was published just before Christmas by the Treasury and BIS together, there is a very strong element about openness that we as a Committee would welcome, and certainly it needs applying in the context of Sarah's question.

George Eustice: Yes.

Q98 Stephen Mosley: Moving on to marine conservation zones, you will of course know that in 2011, 27 marine conservation zones were proposed for designation. In the first tranche, the decision was taken to go ahead with consultation on 31. I am just interested in how the decision process worked in deciding which conservation zones you took forward to consultation.

George Eustice: We announced earlier in the Parliament—again, under my predecessor—that we would do the marine conservation zones in three tranches. The first tranche, the selection of those 31 sites that went to consultation, was predominantly driven by those sites where the evidence of features that needed to be protected was strongest, so we went for the areas where the features were strongest. The second tranche, which we hope to go to consultation on shortly, is looking at filling the gaps in what we are protecting. Many of the candidate sites that we are looking at—intertidal mudflats and the like—are a habitat for others, but in that first tranche it was predominantly those where the evidence was strongest.

Q99 Stephen Mosley: Looking forward—I know you have announced the 37 in the second tranche, which you are looking to consult this spring—how have you looked at the scientific

evidence since 2011 and what have you done to try and increase the scientific evidence that you have got on those sites?

George Eustice: CEFAS has been funding work that has been carried out by a number of people, predominantly Natural England, but the JNCC has also been involved in this process as well. In the last four years we have spent around £12 million on surveys of the seabed to check what features are there and to verify that some of those proposals—the 127 that came from the initial stakeholder groups based on often quite old evidence—were checked and verified, and we did the most up-to-date research there. So we have spent around £12 million in the last four years, and CEFAS has committed that money to help get the evidence that we need for the sites that we intend to consult on.

Q100 Stephen Mosley: During our inquiry we visited Falmouth harbour, which of course is in Sarah's constituency, and we talked to a lot of local people—people working in the harbour and people who are involved in the tourist industry—and we heard about the difficulties in balancing the scientific evidence with the socio-economic factors in the local area. How have you catered for those difficulties within the Department?

George Eustice: The issue in Falmouth—which I am also very familiar with because it is a neighbouring constituency; and obviously I have visited Falmouth harbour and discussed this on a number of occasions—is that there has been a long-running dispute there around getting a licence to do dredging in the harbour. That is predominantly linked to an SAC, one of the European designations. Of course, on the SACs and SPAs—those European protected marine sites—you can't take into account socio-economic factors when making these decisions. The great strength, in my view, of the marine conservation zones—and why I am an enthusiast for them—is that you can take into account socio-economic factors when deciding whether or not to designate. Of the four that we did not designate in the first tranche, at least a couple of them were because, on reflection, we decided that the economic impacts would be too great.

To answer your question about how we are balancing it, we do carry out an impact assessment on all of the sites that we seek to designate, and that looks at some of the economic costs of designation. Many of those are, for instance, in terms of increased impact assessment fees and licensing costs that ports might need to get before carrying out some essential operations in their harbour area. That work is carried out. An impact assessment is conducted for each one. That is where we take it into account when deciding whether or not to consult and to seek designation.

Q101 Stephen Mosley: You started to move into my next question, which is on those four which were not designated in the first tranche. I was going to ask for the reasons why and, if it was due to a lack of scientific evidence, what have you done to improve that scientific evidence.

George Eustice: This was a year ago and I have to remember. There was certainly one just off the coast of Harwich, and it was considered that that would have a major impact on the ports there, so there was at least one that we did not designate for that reason. There was

another just off Merseyside, which was called—I might need Terence to try and help me to remember the name of it—Hilbre Island, or something like that. It is one of the islands just off Merseyside. Hilbre Island was where they did not have sufficient evidence to designate. Once they actually did the survey work, they concluded that there were not the features there.

Q102 Stephen Mosley: You are unfortunate in straying on to that one because both the Chair and I have constituencies very close to Hilbre Island.

George Eustice: Right. So you are familiar with Hilbre Island.

Q103 Stephen Mosley: How are you improving that scientific evidence base? What have you done in the past year to build on that evidence?

George Eustice: On the 37 candidate sites that we announced back in February, we had an initial meeting with environmental stakeholders, NGOs and also ports and fishing interests. We outlined 37 candidate sites which were where we felt the biggest gaps were in terms of our coherent-marine network. From that, over the summer, a lot of work has been done by CEFAS and Natural England to go through and check what features are there and what we are trying to protect.

Q104 Chair: Just out of interest, in relation to that particular one, if it is Hilbre Island, that would be the mouth of the Dee, essentially. There is a huge amount of data held by Government, including the Welsh Assembly Government, about the science, particularly around the marine life in that area. How do you join across Government Departments in this respect?

George Eustice: There is the JNC Committee. We have Natural England, which has carried out that work. In that particular case, they did fresh survey work to assess what it was claimed was there, and concluded that the features that they said they were trying to protect just were not there in the way that the original stakeholder group had thought might be possible. I am not sure if it relates specifically to Hilbre Island, but I am aware, when I went through this with officials at the time to challenge the point about the difference between evidence that we had found and what the stakeholder groups had put forward based on existing research, that some of that existing research dated back to the 1980s. It was seen as quite dated. That was why we did feel it important for CEFAS, Natural England and others to carry out new, up-to-date survey work to ensure that, where we did designate, the features that we are trying to protect are actually there.

Q105 Sarah Newton: When we were doing our inquiry, another factor we found was that when people were consulted during the designation process, because there was only a very general list of management features and because of the lack of clarity about how the sites were going to be managed if they were designated, people really got—it is not an

exaggeration to say it—hysterical in places, because there was a lot of rumour and speculation about what recreational activities, like moorings for yachts, commercial fishing activity or ports activity, would be restricted if a designation came in. What has the Department done since then, learning from those issues arising from the consultations, to better communicate and understand what management tools might be used in areas that might be designated?

George Eustice: This is a very good point, and you are right. On the designation of the first tranche, because we had these stakeholder groups with 127 sites, it is fair to say that at the beginning of that process there was quite a bit of tension between some of the ports, the fishing interests and the NGOs. When we got to the end of that process, there was almost an outbreak of consensus, certainly when we launched it, that we had managed to progress this idea, to come up with the first tranche, in an evidence-based way, bringing new evidence to the table. Both sides are reasonably content. There was reassurance for the ports and the fishing interest because they had seen examples where we had taken into account socio-economic impacts and not designated, but reassurance, too, for the NGOs that we were serious about this and we had committed to do two further tranches.

In answer to your specific point about management measures, one of the features of marine conservation zones is that we don't want to be too prescriptive about the management measures. It was always intended that once they were designated, local IFCAs will bring together the marine users and the NGOs and work out, in a very tailored and local way, what types of bylaws might be appropriate to protect the features that are there. So we deliberately don't want to be too prescriptive on that from the centre. That said, having been through this process for a second year, my conclusion is that for the third year, where there are concerns—as you said, they are often irrational concerns—it would probably be useful for us to be a little more prescriptive or give a little more information about the types of management measures which we think might be appropriate. You are right: we have had it again in some instances—concerns around the Isle of Wight, for instance, this time—where a number of people have said that they may not be able to use moorings at all any more. My argument would be that there is no reason why you couldn't still use moorings. It is just that some consideration might be given to where you put the moorings, how you use them or the types of moorings you use. In order to provide reassurance to move forward, in relation to some of those more contentious designations, where there may be some irrational concerns, it would probably be useful for us to sketch out the types of management measures we think would be necessary. That is one of the things that I would be seeking to do in the third tranche.

Q106 Sarah Newton: You mentioned the third tranche. The Department said elsewhere, very much along the lines that you are saying, that if the implementation for each site has to be done on a case-by-case basis, so as to learn those lessons and apply them in the next tranche, when you go out to consultation, will there be a list of proposed management measures alongside the proposed designations so that people can look at them together?

George Eustice: Yes. We have learned the lesson even earlier than I thought. So we are proposing, when we go to the formal consultation on the second tranche, to give an outline of the type of management measures that we think might be necessary. It is very good to see that the Department has picked that up. It was one of the lessons I learned, after we

had a few meetings on this, that we needed to provide that scope, so we will have an element of that in both the second and third tranche.

Q107 Sarah Newton: That is excellent. My last question, if I can beg your indulgence, Chair, is this. The point about flexibility is good in one way, but it also makes people who are suspicious concerned about who is ultimately the arbiter if there is some degree of flexibility ongoing, especially around the evidence. At the moment, as you know, Natural England are often perceived as having too much power and as too quick to apply what they call the “precautionary principle” to protect various designations and seem quite unchallengeable about their assertions about the precautionary principle. Accepting that it is important to have that flexibility, what reassurance can you give to people in those zones about the openness and degree to which they can scrutinise the assertions made by Natural England and their application of the precautionary principle?

George Eustice: When it comes to the management measures, initially, for the first tranche, already, the existence of a marine conservation zone is a factor taken into consideration on MMO marine licensing decisions. As you will all know and be very familiar with around Falmouth, Natural England is a statutory consultee. I am very aware of this fact having seen some of the issues in Falmouth where, even a consultation on an SPA, has started to be taken into account. Again, it is a requirement of EU law that that should happen. I am conscious of that, but I think that we will have fewer of those problems with MCZs. For the reasons that I said, they are a national designation. The measures are decided locally by the IFCAs. I think we will have fewer tensions with the MCZs than we have had on some of the European designations, where there is less flexibility.

Q108 Pamela Nash: Good morning, gentlemen. I apologise that I could not be here at the beginning of the meeting. I would like to ask about Government funding for marine research in the UK. Minister, do you think that the amount allocated at the moment is adequate for marine research, and particularly for the long-term strategic planning for our research in the UK?

George Eustice: I do. Obviously, we are in a situation where budgets are constrained. Overall, I know that science funding and research and development have been protected at £4.6 billion across Government. Within that the NERC, both next year and the year after, is going to receive £289 million, and will use that to commission some of our long-term research work on oceans. CEFAS does very important work, particularly in the sphere of fisheries. Within that NERC envelope of £289 million, £74 million of that does go on marine science expenditure each year. There is always more that you can do and everybody would always like to spend more money, but given the constraints we have, that is a significant sum of money and we can progress with the research work that we need.

Q109 Pamela Nash: Is the message that you are getting back from our researchers that the funding structure is adequate and good enough for them to plan ahead? A recurrent theme since I have been in this Committee has been that, even when funding is forthcoming, the lack of knowledge about future funding is not always enough to plan ahead for the research which is necessary.

George Eustice: I suppose it's an ongoing challenge, under all Governments, as to the way the Treasury works. There is a spending review period and there are sometimes difficulties in making commitments beyond that spending review period. We do commit to long-term projects, such as the National Oceanography Centre. There is the sea mammal research unit. There is the Scottish Association for Marine Science. There are many, many bodies that benefit from that NERC funding. In terms of feedback, I don't know, Terence, if there is anything you want to add.

Terence Illott: I suppose, from sitting within the MSCC, we don't tend to get feedback so much about the quantity of money, but what it does drive are initiatives to try and ensure that we get the most out of the money that we have. For example, one of the key bits of MSCC work is something called the integrated monitoring programme for the UK. So you have the National Oceanography Centre, CEFAS, the Met Office, the Plymouth marine laboratory, Marine Scotland and some others coming together to try and make sure that they share their data, that they prioritise the observations that they really think are important. So it is pushing this attempt to try and get the most out of what we have.

Q110 Pamela Nash: Thank you. I would also like to ask about progress since our last report. The response that the Government gave us is as follows, and I will quote: "Sir Mark Walport will take forward a thematic review of scientific observations needed to meet the UK's requirements for environmental data to inform and support research, operational needs, and policy making." What progress has been made?

George Eustice: I know a plan is under way. Terence, do you want to answer?

Terence Illott: I will pick this up. This was done by the Government Office for Science. It happened slightly differently from what was envisaged at the time of the response. The Government Office for Science commissioned the Royal Society to do a piece of work looking at how to use environmental monitoring for science, policy and growth. That work is going to report in the next month or so. As part of that work, the Royal Society has consulted people in various marine organisations. Someone from the National Oceanography Centre is part of the team that oversees the project, and has consulted my team about their views, and other marine bodies represented on the MSCC as well. GO-Science has taken it forward and it is due to be published in another month or two.

Q111 Chair: Just in terms of your relationship with the National Oceanography Centre—I should point out that my daughter is a mathematician working for the National Oceanography Centre—what input have you made into the debate about NOC's future, because clearly there is one point of agreement between this Committee, Sir Mark and others, and that is that the key is the protection of UK science? What input have you made?

George Eustice: As I said, it is one of the projects that is funded by the NERC. Actually, right across Government, trying to make sure—

Q112 Chair: But you are a customer of their science, so you must have a view.

George Eustice: As I said, they do some very important work when it comes to some of the long-term research that we need beyond the short term. Of course, they have a very important role, and that is why I support the fact that the NERC give them funding.

Q113 Chair: When the Government published their industrial strategy, they set out the benefits of giving business confidence over longer periods, longer than the spending review. So you are agreeing that similar thinking ought to be applied to the fundamental science that is done in oceanography; is that right?

George Eustice: I think so, yes, given, as I said, that much of the work they do is long-term work. It is not like some of the short-end research that CEFAS might do on fisheries, for instance, such as looking at evidence. Some of it is looking at much longer-term impacts of climate change. So they need some security of funding in the long term.

Q114 Dan Byles: Just coming back to the importance of collecting marine data, we have talked about the work that the Government are doing to try to improve the data gathering from wider sources outside of Government. During the Committee's inquiry, there was some discussion about marine autonomous vehicles, and the fact that the UK was a promising area for this. The Committee heard from Professor Boyd, the Government's chief scientific adviser, that the UK is weakly positioned and at risk of losing its position in the global market for these vehicles. Since the Committee's report, what have the Government done to ensure that marine science will benefit from the efforts of other Government Departments, of Innovate UK and so on, in terms of developing marine autonomous vehicles?

George Eustice: These have a really important role, particular when it comes to fisheries. At the end of last year, I finished the December Fisheries Council, where we have negotiations on dozens and dozens of different fish stocks. One of the biggest challenges we have is that so many of them are what we call "data-limited stocks", where the data we have about the health of an individual stock is limited. Rather than having to have, as we do with CEFAS, the Endeavour, which is a big survey vessel which goes out and carries out the survey work, we could go a long way to filling some of those evidence gaps if we could use unmanned vessels and small monitoring vessels that can go out and collect some of these data. The potential for those unmanned surface vehicles is incredibly high. A demonstration project was carried out off the south-west, where they used two of these unmanned monitoring vessels, and that work was led by the NOC on that point. BIS is also providing some funding to try and develop some of these ideas.

Q115 Dan Byles: Is this the £5 million contribution, which was jointly between Innovate UK, the MOD and—

George Eustice: There was the Eight Great Technologies initiative. Basically, under that, BIS made a £10 million capital investment to the NERC's work on marine autonomous and robotic vehicles. So yes, a £10 million fund has come from BIS to advance that.

Q116 Dan Byles: Is that being spent? What is the time frame for that? Has that just been announced or are we seeing any tangible results yet from that?

George Eustice: It is opening in the spring of this year.

Terence Hott: To be honest, I don't know the timetables for when the funding is coming on stream. For example, to help the DEFRA marine science interest to be picked up in the work that is being done on the underwater vehicles, CEFAS partnered in the demonstration project that the NOC led; we have one of the people who are key in the NOC spending a little time on part secondment into my team, working with one of my scientists, to try and look at the applications in the longer term.

George Eustice: There is going to be an innovation centre based at the NOC on this, opening in the spring of this year, 2015. We can write to the Committee if you want, just to clarify that, because I think £10 million was being spent between 2013 and 2015, I would envisage that some of it has already been spent and probably a chunk of it would have gone to supporting that innovation centre at the NOC that is imminently going to open.

Q117 Dan Byles: It would be very interesting if we could see any kind of metrics or evidence around the impact on the development of marine autonomous vehicles, because I think everybody agrees that these are extremely useful tools. It was quite concerning to hear Professor Boyd's concerns that we are weakly positioned and at the risk of losing our position. It is very reassuring to hear that perhaps that has been taken on board with some funding decisions. It would be quite nice to see what the outcomes might be in terms of natural beneficial impact.

George Eustice: Yes, and particularly on the fisheries' policies, as we move to an approach where there is a legally binding commitment to fish at MSY—maximum sustainable yield—actually making sure that you have the data on enough stocks to be able to assess what MSY is, in order to get the setting of quotas right and to have a discard ban that is going to be effective. Getting that data and filling those data gaps is going to become increasingly important. These unmanned vessels could have a very important role in that.

Q118 Stephen Metcalfe: Good morning. I would like to turn to the issue of your role in helping to tackle antimicrobial resistance, if I may. You have a considerable role in the One Health strategy, as do other Departments across Government. What are you doing or how are

you ensuring that the One Health strategy is fed into all the relevant policy areas across DEFRA?

George Eustice: There are a number of pieces of work which are led by both the VMD and also our chief veterinary officer. There is work at a European level, for instance, being carried out to try and get a better understanding of what we should be doing. The VMD very much lead on this work for us. They do collate sales data. We ensure, for instance, that the preventive use of antibiotics is strongly discouraged and can only be used where you have disease that is really at risk of spreading. So the routine preventive use is something that is against our existing regulations. It has been banned in the EU since 2006 as a growth promoter, for instance. The VMD is doing a piece of work at the moment to try and improve the quality of the data that we have on the use of antibiotics, because one of the issues that you have is that sales figures are sometimes an unreliable indicator of actual usage, because some of what is sold is disposed of.

I do not know if Paul wants to add anything about cross-Government. We work very closely with the chief medical officer, and the DH is the Department that we work very closely with on this.

Paul Green: Yes. We work very closely across Government with the Department of Health, Public Health England and the Food Standards Agency, and we also bring in the devolved Administrations. I chair something called the DEFRA antimicrobial resistance co-ordination group, which brings scientists and policy makers from across Government to discuss all the issues around veterinary antimicrobial resistance. That meets four times a year. That has been one of the many mechanisms through which we feed into the one health strategy, which is clearly a Department of Health lead. We also work with the Foreign Office. Again, that is primarily a Department of Health lead on the international one health agenda, but we do feed in there and have supported them, for example in their work in getting a World Health Organisation resolution last May. One of the next plans on that is around doing something similar within the Food and Agriculture Organisation.

Q119 Stephen Metcalfe: So you would say that it is very much at the top of the departmental agenda or close to the top of the departmental agenda in terms of treating this as a serious concern.

George Eustice: Yes. It is also one of the major issues in my mail bag from colleagues and constituents. This is certainly an issue in the last year that has really come up the agenda. It is in the public consciousness now and it is something that Parliament as a whole is taking very seriously.

Q120 Stephen Metcalfe: That is good to hear. One of the most striking pieces of evidence that we have ever taken was when the chief medical officer said that she was more concerned about antimicrobial resistance than almost anything else. Anyway, I am glad that it is right there at the top of the agenda.

During the inquiry we received some evidence that people were concerned that there were antibacterial and antimicrobial compounds getting back into the environment via water or

poor waste management. You talked about the fact that the sales figures of antibiotics and so on were not a good way of judging how much was being used. Therefore, there must be a disposal issue around those. How much evidence do you now have about how unused antimicrobials are being disposed of and whether it is possible to transfer compounds back into the environment via water and waste?

George Eustice: The key area that we cover in DEFRA is through the VMD. A lot of surveillance goes on to look particularly at residue testing. This is how the bute problem was picked up initially. Routine surveillance and laboratory testing is done to make sure that we don't have residues of this in meat. When it comes to the environment, this comes under the responsibility of Dan Rogerson, there is a group that he set up to look at the impact of pharmaceuticals on the environment. Some research has been done in this area, and what has been done so far in most countries suggests that although, yes, there are traces of pharmaceuticals in water in particular, these are not at any level that would cause concern at the moment. Nevertheless, we are not at all complacent. That is why Dan Rogerson set up that group. I understand that some further research is going to be carried out to look at whether this is a problem in waters in the UK.

Q121 Stephen Metcalfe: Could you expand, if you know, about what that additional research is, because presumably if you are already testing, you only find what you are looking for?

George Eustice: We might have to write to the Committee with more details on that. I can say that they have set up a group specifically to look at pharmaceuticals in the environment. There is a working group that Dan Rogerson set up. In shorthand, it's called PIE—pharmaceuticals in the environment. It is something through which they are planning further work to explore. As I said, based on evidence that exists so far—I know that some work was done in Belgium, for instance—the conclusion so far is that although there are traces of pharmaceuticals, it is not at a level that would cause us concern.

Q122 Stephen Metcalfe: You may not know the answer. You mentioned Belgium. Is their use of antimicrobials the same as ours, or was it the same?

George Eustice: No. Paul, I know that Denmark has done some work.

Paul Green: Across Europe, data on sales—it is not usages—is collected by the European Medicines Agency and published. I could probably dig out where Belgium is but, from memory, in terms of antibiotic usage per unit of livestock, Belgium is higher than us. In terms of what you might call the “big member states”—Germany, France, Poland, Spain and Italy—all have higher use per kilo of livestock production than the UK.

Q123 Stephen Metcalfe: And they are not finding significant traces in the waste, be it water or otherwise.

Paul Green: I can't answer that question.

George Eustice: We can write to the Committee further, because I know I definitely saw one of the footnotes involved a study in Belgium that looked specifically at pharmaceuticals. We can write to the Committee, which is probably the best thing, just to clarify the situation.

Stephen Metcalfe: Okay. We would rather have it accurately. Thank you.

Q124 Graham Stringer: This is the same sort of question, really. When we were taking evidence on antimicrobial resistance, we had conflicting evidence about pathways from animals into humans for antimicrobial resistance. We recommended that more work be done on that area. While there were different academic papers, there was also evidence from other countries that where antibiotics had been banned or severely restricted in animals, there had been less antimicrobial resistance in the human population. What extra work have you done to look at those pathways and to look at evidence from elsewhere?

George Eustice: May I ask Paul to come in on the specifics of what research we have done on that area? Our general view is that, if you look at antibiotic use, the concern about antimicrobial resistance is predominantly driven by use in health because the volumes used in health are still far higher and more problematic than that used in the veterinary profession, where it tends to be more restricted in a way where there is less evidence of resistance developing. Paul, is there any specific work that the VMD has done that you are aware of that looks at this specific issue about whether use in the veterinary sphere can lead to resistance problems?

Paul Green: The research councils have issued a number of calls. There is something called the antimicrobial resistance funders forum, which is led by the Medical Research Council. That is co-ordinating efforts on AMR across all of the research funders. It is probably best if we give you a note of details of what comes under those calls and that research.

Q125 Graham Stringer: In a sense, that doesn't take us much past where the Committee was, because we knew that. We also had evidence from other countries and a World Health Organisation report that disagreed that antimicrobial resistance came primarily from the use of antibiotics within human beings. They said that, in the case of salmonella and campylobacter in the human population, "that is clearly linked to antibiotic use in food animals". That is why we asked for more work to be done, and you are saying that you have maintained the same position. Is that right?

George Eustice: As I said at the beginning of the session on this subject, the routine use—the preventive use—of antibiotics is already not allowed. They have to be prescribed every time. It has been banned as a growth promoter. There is more that we can do and that is why further work is being done to explore this at a European level. I believe that the position that we have in the UK and most other European countries is probably better than in other parts of the world, for instance. It is not something that we are complacent about. It is why we are continuing to work at a European level. That is why there is also a

transatlantic group that has looked at this: Lord de Mauley attended a session on that earlier last year.

Q126 Graham Stringer: After Zac Goldsmith's debate in Westminster Hall, you were good enough to write to me earlier this month pointing out the increased figures for the use of beta lactamase antibiotics in food animals. What you said in the letter and what you said to the Committee was that the sale of antibiotics to farmers does not necessarily represent their use. Can you tell us what you are doing to improve the monitoring of what is going on within farms and the use of antibiotics?

George Eustice: I am going to ask Paul to answer that because I know there is a piece of work that the VMD is looking at to try to get more accurate data on this. One of the issues is that not all of what is sold is actually used. So it is a reasonable proximate but it is not specifically accurate.

Paul Green: One of the other problems is that a lot of veterinary medicines have multiple indications, so if you have a figure of sales for something that is authorised in both, let us say, pigs and poultry, you can't then, just from looking at the sale figures, identify where it is actually being used. As the Minister said, we have a piece of work going on at the moment to look at the most cost-effective way of getting more accurate usage data. We have been focusing particularly on the poultry and pig sector and the cattle sector to start with. What we know and what we have found is that the producer groups themselves do collect quite a lot of data on the use of veterinary medicines. We have been working closely with the British Poultry Council, the British Pig Executive and others to design the right kind of protocols in terms of the data that would be useful and least burdensome to collect.

We are also developing a data hub at the Veterinary Medicines Directorate which would allow us to take the data on usage that the various industry bodies have collected. That is our plan—to move from sales data to usage data.

The other important piece of context is the European one. If I may, Minister, the veterinary medicines legislation in Europe is under review at the moment. Proposals were published last September. One of the proposals is that member states will be required to collect sales and usage data. We at the VMD are one of a number of member states involved in a pilot project, led by the European Medicines Agency, to start the process of designing the protocols in terms of what you can collect in terms of usage, because collecting data can be quite expensive and difficult to do, in order to get it on a consistent and coherent basis. So we are involved in that early stage of the European project to get a better handle on usage.

Q127 Graham Stringer: But when will the work on our national analysis be completed so that you can come to this Committee or another Committee and say, "We will have a process of getting the figures"? When will that work be done?

Paul Green: We are doing it in stages. I would expect to have the data hub ready some time next year. In terms of collecting the data, we have an undertaking from the poultry

industry that they will let us have their data. The other sectors are not as far advanced. It is difficult for me, at this stage in the phased work that we are doing, to say that we will have usage data by a particular date, but it is something that we are working on and we certainly hope to get something in place for the pig and poultry sector over the next couple of years.

Q128 Graham Stringer: Just going back to the figure of a 65% increase in beta lactamase antibiotics, that is a significant increase over 20 years. While it does not guarantee that there is irresponsible use of antibiotics, it may indicate that. What work are you doing to check whether antibiotics are being used responsibly and not irresponsibly as growth promoters over this period? Do you have any explanation at all as to why there should have been such a large increase?

George Eustice: Again, the VMD regulates the vets who prescribe this in the first place. That is something they cover. My understanding is that in the last five years the use of many of these has been broadly stable. Paul, perhaps you would like to say something.

Paul Green: On the question of use as growth promoters, we have quite an extensive surveillance programme for residues of veterinary medicines, including antibiotics and banned antibiotic growth promoters. We take over 30,000 samples a year and test for a wide matrix. If we do find non-compliance, we will follow them up, but we get a very low level of non-compliance. The other thing we do is to issue guidance. We have been working with the veterinary profession to encourage them to work with us in terms of getting them to produce prescribing guidelines. In terms of some of the critically important antibiotics, when they are authorised on the data sheets or the summary of product characteristics, part of that says that they should only be used in cases where sensitivity of testing has taken place and when other treatments have not worked.

When we are talking about guidelines, because guidelines themselves are not law, it is quite difficult to enforce them as such. One of the strands of the One Health strategy is improving the stewardship among prescribers of antimicrobials. Guidance and engagement is one of the ways of doing that.

Q129 Stephen Mosley: In 2013 we did a report on water quality in which we highlighted the problems associated with microplastics in the marine environment. In the Government's response, you told us that you had commissioned research from Plymouth and Exeter universities, and you had also taken part in the InterReg MICRO project to look at the presence of microplastics in the English Channel and the North Sea. You promised to update us on the results of those investigations. Could you do that now, please?

George Eustice: With most of the work that we do on microplastics, we are aware that this is a real problem because it has a cumulative effect and we know that most of these plastics come from terrestrial sources which end up in the marine environment. It can take hundreds of years for the plastics to break down, because there is a cumulative addition each year. It is a problem that has very much come to light. The Marine Conservation Society has done some good work in this.

Most of the work that we do in this area is done through a group called OSPAR, which is a European regional group. The Oslo-Paris agreement set it up. They have a meeting where they look at this. At their last meeting, which took place early last summer, there was a commitment to encourage the cosmetics industry, for instance, to stop using microbeads in cosmetics. Some of those have already made that step. Also, there has been an undertaking that if a voluntary measure on that approach did not work to phase these out, then regulation should be considered. There have been some encouraging signs from the cosmetics industry that they are willing to move in this direction themselves. A lot of the other work that we are trying to do is around reducing terrestrial litter getting into the marine environment. So OSPAR is the main bullet that we use. Can I ask Terence to speak on that specific report as to what is to be done in this area?

Terence Hott: I can't update you on the work that Plymouth and Exeter are doing, because that is not quite complete yet. It is a three-year project due to be finished later in 2015, but it would be possible to write to the Committee once it is.

On the InterReg project, I am not competent enough to give you all the technical details. It looked at things like the abundance of microplastics in sediments and so on. A report has been produced, so it would be relatively easy to make the Committee aware of the link to that.

Q130 Stephen Mosley: Has there been any indication that the work the Government are doing to reduce microplastics is having any success, and is there any evidence to back that up?

Terence Hott: The Minister mentioned some of the OSPAR work, for example, on cosmetics, where there have been discussions with the cosmetic and retail industries about the potential for phasing out microplastics in those products. Some of the industries are going towards those steps. As to the other sources of microplastics, there is work being done by the plastics industry to try and minimise the losses of the so-called primary microplastics, which are those plastic particles which are used in the manufacture of plastic products more generally. There is a programme to try and reduce that loss as well.

George Eustice: It is very difficult to assess. Some of the work that CEFAS has done in looking at the presence of microplastics in water shows that it can range from one particle per cubic metre to several thousands of particles per cubic metre. There is an evidence gap here. There is more work to be done.

I mentioned the Marine Conservation Society. They do their beach combing project every autumn. I took part in one in my own constituency at Porthtowan last year. They will report that they have had an increase in plastics that they are finding on beaches. One of the difficulties is that because plastics break down over time, sometimes you can get more smaller particles and smaller pieces of plastic that might have been in the environment for 10 or 20 years. It is quite difficult to measure this accurately. I know that when they collect their data, they codify the size of the plastic to try to assess the problem. It is quite a complex area, and it is a compounded problem in that litter being added each year adds to the scale of the problem. It is quite difficult to judge from the evidence that we have so far whether this is a problem that is getting worse because we are adding to it each year or

whether it is an historic problem that is still working through the system, given, as I said, that these plastics can stay in the environment for hundreds of years.

Q131 Stephen Mosley: Another area that we looked at, and we touched on it in one of the previous questions, is the presence of pharmaceuticals in the environment. In August 2013, the Government stated in their response to our report that they would “report to the Committee on progress with its development on the evidence base on pharmaceuticals in the environment in 12 months”. It is 18 months since then and we have not heard anything. Could you update us now on that information?

George Eustice: I can check this, but what I was told was that Dan Rogerson, my colleague in DEFRA, updated the Committee on 24 September 2014. That was the key issue, as he highlighted that there was the expanded cross-governmental pharmaceuticals in the environment network, which I was touching on earlier. I have here a letter from Dan Rogerson to the Chair of the Committee on 24 September, which does open with the words: “Further to the Government’s response to its 2013 inquiry, I am writing to update the Committee”. I am sorry if there was a mix up. I think the Committee does have that letter.

Stephen Mosley: We will dig that out then. Thank you.

Q132 Jim Dowd: At last we are culling the archives to find some correspondence. I have some more. Let us hope it is similarly brief and you will tell us that we have it somewhere. Our understanding, in the same Government response some 18 months ago, was that the Government would “update the Committee in 12 months with expectations for innovation to be delivered by the water industry”. My information is that we have not received that. I don’t know if somebody else sitting behind you can ferret out a copy of the response that they can direct us to, but in the absence of that, could you update us now?

George Eustice: That is a very broad topic. There is a Water Act, obviously. I can chase it up.

Q133 Jim Dowd: It will be in the light of the Water Act, but this was in expectation of the Water Act. The Water Act was not until 12 months later. The inception of the Water Act was not until 1 October of last year, and this was in August the year before.

George Eustice: Okay. I am sorry to say that this was before my time and, possibly, even before Dan Rogerson’s time. It was published in August 2013.

Q134 Jim Dowd: 2012.

George Eustice: August 2012.

Q135 Jim Dowd: The report was published in June and the Government's response was issued in August, when they thought that nobody was looking.

George Eustice: And after that there was an intention, you say, to update—

Q136 Jim Dowd: It says, and I quote, “update the Committee in 12 months with expectations for innovation to be delivered by the water industry”.

George Eustice: Okay. I will have to write to the Committee on that and I can check where that piece of correspondence is.

Q137 Jim Dowd: But you cannot say anything to us now, even briefly, probably. Okay. Let me turn to the 2014 Water Act itself. Clearly, part of the Government's intention was to increase innovation in the water industry. How successful has that been and how have the Government monitored it?

George Eustice: Since then they have introduced the Water Act, which is all about introducing retail competition in the business sector, which will drive innovation. The Act also contains provisions from 2019 onwards to have some upstream competition as well, with new entrants being able to come in. This is a complex and difficult area, but the Water Act is the first step towards making the types of changes that would drive that innovation.

Q138 Jim Dowd: We did note in that report, and the Government responded to it, that there were wide variations between water companies in their efforts to improve techniques, particularly with regard to the removal of emerging pollutants and other activities. Have the Government undertaken any work to try and establish that the water companies have a more uniform approach to this and, preferably, towards the best practitioners rather than the worst?

George Eustice: I am sure that that work has gone on, but again I am afraid I will have to write to the Committee on that.

Q139 Jim Dowd: Okay. Finally, at the same time, Sir John Beddington, who was then the Government's chief scientists, referred to water security as part of the “perfect storm” of food security, energy security and water security, all in the context of global climate change. What are the technological challenges to ensuring the UK's long-term water security?

George Eustice: It is one of the reasons why the Water Act also contains proposals around reform of the abstraction regime, which is very important. At the moment, there is a mix of approaches and we need consistency in when abstraction licences are granted. That is a very important one. You are right that also, as Farming Minister, in looking at the foresight report that was carried out on food security, it is clear that availability of water in many parts of the world is going to become the first constraining and limiting resource on food production. It is right through the agri-tech strategy. We are funding projects to look

at crops and strains of cereals, for instance, that use less water. There are a range of things you can do, right from having more drought-resistant and drought-tolerant crops through to domestically managing our water resources more effectively, particularly through reform of the abstraction regime. Again, that is where the Water Act made a step in that direction.

Q140 Jim Dowd: Just briefly on that point, when you mention crops that reduce reliance on water, would that include GMOs?

George Eustice: It could include GMOs. We have always been clear that provided the right regulations are followed and that they have been tested, if you can get drought-resistant forms of crops and it used GMOs, then there should not be a principled objection to that. If the science supports it and they are not a risk to the environment, then, yes, we certainly would not rule that out. Specifically, the agri-tech strategy is working with a number of other partners, including ones from India and Pakistan, to develop some drought-resistant strains of cereals at the moment. Those would be conventional cereals rather than GMOs.

Jim Dowd: Thank you.

Q141 Chair: Minister and gentlemen, thank you very much for your attendance this morning. It has been very helpful.

George Eustice: Thank you. We will update the Committee on the points that were raised.

Examination of Witnesses

Witnesses: **Lord Bates**, Parliamentary Under-Secretary of State for Criminal Information, Home Office, and **Alan Pratt**, Director of Science, Engineering and Technology, Home Office, gave evidence.

Q142 Chair: Minister, welcome back. It is good to see you again. Perhaps you would introduce your colleague.

Lord Bates: Yes. I am joined today by Alan Pratt, who is the Director of Science, Engineering and Technology at the Home Office.

Q143 Chair: Welcome. You will be aware that we have previously commented on the way in which scientific advice is used in the Home Office. What is your understanding of the role of the Home Office's chief scientific adviser?

Lord Bates: He is there to challenge. As a non-scientist, I confess it is incredibly valuable when you are dealing with, and getting advice from, the security services—be it about online child sexual exploitation or cyber security—to have someone there who is working with you to challenge the evidence which is coming forward and also to almost have a foot within the Home Office, so as culturally to be able to understand the needs of policy makers and the type of information that we are looking for. It is a very valuable role. The Home Office were particularly blessed by having Professor Bernard Silverman, who is an excellent adviser. I meet with him quarterly but also routinely on other matters. His particular forte is in applying statistics. Therefore, his work, which he has done for us, whether it is in trying to quantify the scale of the problems on modern-day slavery or in troublesome issues, which I do not want particularly to go down this morning, including on passport demand—those types of statistical issues—has been particularly helpful in his input. That has been my first impression.

Q144 Chair: We would agree with you that the role is there to challenge and to challenge in a constructive way. We have seen some good examples of practice coming from the Home Secretary. I am on record as praising the Home Secretary in the way she dealt with the advice she received from the Advisory Council on the Misuse of Drugs in relation to khat, for example. It is important that there is that challenge that protects the independence of the scientific advice.

One of the things that concerned us when we looked at the Forensic Science Service was the simple fact that Professor Silverman was not brought into the discussion until it was too late and it had happened. With hindsight, that has to have been a mistake, has it not?

Lord Bates: As to that particular chapter—Alan might be able to help me here as he was closer to what was happening at the time—as a matter of routine, of course, that would be something that the chief scientific adviser should be involved in and advising on, although there was a very strong element around that decision, which we know of because of your previous report on the subject, which was around the commercial and finance sides of it. There is a very strong scientific element to it. Of course, had Professor Silverman been in place at the time, he would have been able to offer advice on that matter.

Alan Pratt: Bernard Silverman was in place shortly before the time of transition of the Forensic Science Service out to the market. In the evidence that he gave you at the time, as the Minister has said, with regard to the principal decision around whether to close the Forensic Science Service, Professor Silverman was content with one, primarily, on business grounds: that the organisation was not in a financially viable state and that the ability of the Home Office to continue to support its ongoing structure needed to be decided upon on financial, legal and operational grounds. The science that the Forensic Science Service was providing by that time was also available from a range of other commercial providers, and our networks with industry, academia, the criminal justice system more widely, gave the Department little reason to believe that there was a question of science at stake in that decision.

Q145 Chair: There was. Let us be absolutely clear: we did have a major fall-out with a previous Minister on this subject. This Committee was never opposed to the commercialisation of the Forensic Science Service; what we were interested in was the protection of the core science. There has to be a question, and I hear this from the Forensic Science Society regularly, about how we are going to protect the science in the future. That remains a challenge. To that extent, the question that was being posed to Professor Silverman was the wrong one. Would you agree, with hindsight?

Alan Pratt: Given the strength of feeling of the Committee, had we our time again, perhaps we would have done things slightly differently.

Q146 Chair: Okay. Leading from that, I am correct, Lord Bates, in saying that your role is purely in the Home Office.

Lord Bates: That is right.

Q147 Chair: Forensic science is an unusual commodity in the sense that it changes ownership during its use. Originally, it is substantially procured by the investigating officer and finally becomes the property of the court, which, of course, comes under a different Government Department. Have you had any discussions with your ministerial colleagues responsible for the Court Service as to whether there is any evidence yet of any damage to the forensic science provision to the criminal justice system as a result of the changes that have occurred?

Lord Bates: The discussion is ongoing, Chair. It is something which is reviewed regularly as part of the work of the forensic policy group. That draws on a wide group of individuals from the Crown Prosecution Service, for Ministry of Justice issues as well as scientific officers and, of course, the national policing lead in this area. That is kept under review. The general view is that nobody wants to say that everything is perfect in the situation. We need to understand better what is happening there, but there are some very encouraging developments, which are happening in the area of, for example, rapid DNA. This is something where we are using principally private sector providers and also, of course, the constabularies have their own in-house capability as well. Some of the fast pace of development in rapid DNA, which is coming from private sector companies in this area, holds out some very exciting potential for us. In addition to that, there has also been recently some grants—I will give you the exact number, which is about £421,000—from the police innovation fund, which has gone to progress further thinking in terms of R and D in this area. From that point of view, compared with where we were when we had the Forensic Science Service losing £2 million a year, which we are not doing now, there is therefore a budget which we can use to draw upon the private sector R and D, and also to invest in it ourselves through the police innovation fund.¹

Chair: Okay. We will come on to this later on in a bit more detail, but in terms of the original report that we wrote following the closure, the Government response did include details about

¹ The witness later clarified, that the Forensic Science Service was losing £2m a month.

creating or encouraging what was then the TSB, now Innovate UK, to undertake some work. We will come back to that later, if we may.

Q148 Pamela Nash: Good morning. I would like to look at forensic strategy. I would like to start with a relatively simple question. It is my understanding, and I think it is the Committee's understanding, that what was previously called the forensic policy group then became the forensic science strategy board. In the letter, Minister, that you sent to the Chair earlier this week, you referred to the forensic and biometric policy group looking at the areas that I thought the forensic science strategy board was responsible for. I also note that the forensic science strategy board has not published any minutes or details of its work since October 2012. Can I ask, first of all, for clarification of what is the name of the group? Are there various groups or is there just one, and what are the responsibilities?

Lord Bates: I will pass quickly to Alan, and then I will come back.

Alan Pratt: There is one group. It has been through a number of phases in its evolution. Historically, before the issues around the Forensic Science Service, it existed to survey the landscape of forensic science. It then found itself in a period where it was focusing almost exclusively on transition matters in relation to making sure that the casework was effectively handed over to other parts of the commercial forensic services provider system.

Q149 Pamela Nash: Just to be clear, that was the forensic policy group.

Alan Pratt: After it felt that it had dealt sufficiently with the transition issues, it then became the forensic policy group. The term "forensic science strategy group" became slightly interchangeable with that term, and recently, in part due to the interest of this group in exploring the boundaries of both forensics and biometrics, we have started to look at how the two interrelate and where the boundaries and handovers between the two areas exist. At the moment, we are talking about it as the forensic science and biometrics policy group. Both of those are very broad areas and there are active discussions at the moment as to exactly what the right scope for that ought to be in the future.

Q150 Pamela Nash: Does that have largely the same membership as its predecessor?

Alan Pratt: At least the same membership. In recent times, it has also grown to encompass a wider set of biometric stakeholders.

Q151 Pamela Nash: I note the drop of the word "strategy" from the last title to this one. Previously, this Committee was given an assurance that the Government would be looking at publishing a strategy towards the end of 2013. Clearly, that has not happened yet. Minister, in your letter, you refer to some of the difficulties around that being that it has been difficult to achieve consensus within the group on what that strategy should look like. Could you flesh out that problem a bit for us as a Committee?

Lord Bates: Yes. We were trying to bring some good news to the Committee this morning, but I am afraid in this area we have not managed to do that. On the face of it, there are two elements. From a political and policy point of view, you would think that it is pretty straightforward to come up with a clear strategy. I don't know whether there is something in the difference of the DNA between the political scientist and the applied scientist, in that they want more evidence and they want to test what the strategies should be, as to why that process takes a lot longer. I am aware of the commitments that were given and I am sorry that we have not been able to meet those commitments.

What we have just undertaken to do now is to commission some further collection of data to see if we can find a way through of what should be focused on. Let me just give some for instances. The area of digital is huge. It is often parked to one side of biometrics and forensics but, increasingly, with social media and CCTV, the two are coming together. Is that something which ought to be part of the forensic strategy or is it something which is wider? The remit, just as one example, is a key part. If you can't agree with the territory that you are seeking to come up with a strategy for, then it is very difficult to agree the strategy. That is taking longer. I am very hopeful that at the end of this rapid three months of additional data that will provide the group with the resource necessarily to come to a clear judgment on the terrain, and from that the strategy should flow fairly quickly. What, essentially, it is there to do is to set the standards and the regulatory framework, but over what terrain. That is one of the areas of debate.

Q152 Pamela Nash: Thank you. Can I just say that I am very pro outward-looking Government and getting as much expert advice as possible, but this has left a massive gap where there is no strategy in this area from the Government? Are you confident that a strategy can be created by consensus from this group, or, if that does not happen, what is the alternative and who will finally make the decision on what the strategy should be?

Lord Bates: I am confident that this is essential work, absolutely critical work—just yesterday, we had the Second Reading in our House on the Counter-Terrorism Bill—and the whole aspect of forensics is essential in that Europe fight. I am absolutely confident that we are making progress in that things are not being held up because of the absence of a strategy. The presence of a strategy, as the Committee has observed, will be particularly helpful in terms of communicating outwardly the area in which we are focusing on, but in terms of the day-to-day tactics and the day-to-day operations, that work is going on at a pace and with focus.

Q153 Chair: I think you are hinting to us that we ought to be saying to our successor Committee, as part of our Legacy report, “Keep your eye on this one because it will be unfinished business by the end of this Parliament.”

Lord Bates: I have already got into trouble once, Chair, for offering a date attached to this process.

Q154 Chair: I would not be far wrong in surmising that.

Lord Bates: You may say that.

Q155 Pamela Nash: What progress has been made, because you have indicated in your letter that there are some areas of consensus? What do you see as being definite that a strategy will cover at this point?

Lord Bates: Let me read from a list, because I think it would be good to get these points on the record. I point to the national policing need for forensics, which has developed a draft plan focusing on quality, efficiency, innovation and transparency. Quality frameworks and accreditation are in place for 39 police forces conducting in-house fingerprint enhancement or DNA processing; 32 forces are accredited for DNA, 13 for fingerprint enhancement and 16 have applications in progress for fingerprint enhancement. The Home Office published a world-leading finger-mark visualisation manual, which is a thousand-page electronic document. Rapid DNA technology is being explored, as I have already mentioned, in a number of pilots with the police forces, with a £421,000 innovation investment from the police innovation fund. The national DNA database testing has been upgraded to DNA 17. We are investing in new forensic techniques through the small business research initiative. That is a list of some of the ongoing work. We are in agreement that it can only be strengthened by having some clear document which helps to focus and then, from that, helps to prioritise, because essentially that is what strategy does. It helps you to say, “This is the terrain, these are the priorities and this is the basis on which we are making policy decisions and allocating resources.”

Q156 Pamela Nash: Thank you. That list is quite comprehensive. Can I ask, then, what are the areas where we are failing to reach consensus in the group? What is causing all the problems?

Lord Bates: I mentioned one, and it is not a small one, which is in relation to the overlap with digital as being a key element of it. I do not know if Alan can give any other examples to the Committee.

Alan Pratt: Yes. Scope is an important question. During the course of this, we have moved from wanting to create a purely forensics strategy dealing with DNA and fingerprints plus the other smaller categories of forensic usage. Over time, the aspiration grew to include how all of those interface to the national databases that support them and link through to the criminal justice system; then, widening out again to a wider use of biometrics, potentially including how you use automated facial recognition within internal business processes. So how would you use biometrics to help, for example, the efficiency of processing visa applications? There was a wide range of different domains that we got into talking about in quite some depth, but that depth and breadth in itself became a problem, so establishing exactly what is the appropriate and most tractable form of a strategy to give clarity to the appropriate set of stakeholders has been one area where we have been in a lot of discussion with stakeholders. The stakeholders on the group itself are wide. Would it be helpful if I told you who is actually on the committee?

Q157 Pamela Nash: Yes. That was going to be my next question.

Alan Pratt: On the forensic and biometric policy group we have a range of Home Office partners, including policy commercial on the scientific side, the national DNA database. On the IT, we have international, immigration and enforcement and Her Majesty's Passport Office. Other Government Departments include the Ministry of Defence with DSTL and the Department of Health. From the criminal justice side, we have the Crown Prosecution Service. We have national policing leads and the Metropolitan police service. As to regulatory, we have the forensic science regulator and the biometrics commissioner. From industry, we have the Association of Forensic Service Providers. We have the Chartered Society of Forensic Sciences and the forensic science special interest group under Innovate UK represented. Then the College of Policing and a few others have been to one or two meetings. As you can see, that is a very comprehensive list of stakeholders, each of which approaches the issue of what would the right strategy for them be from a particular direction and trying to align all of those different directions to something that is practical.

Q158 Chair: Surely there is only one line that they should be adopting, and that is what is in the best interests of criminal justice. It seems to me that the mission statement you could write now. Why has it taken so long and why is it so complicated?

Lord Bates: Chair, that is exactly the question I was asking when I was aware that I was coming before this Committee. It is part of it. On the one hand, you say that the scientific advice ought to be free, unfettered, independent and robust. Then, on the other hand, perhaps, in the process, a little bit of political direction might be useful, but the actual process by which that happens is a difficult one. We are watching it very carefully. We are making it clear that we believe that the strategy should have been there by now. We are disappointed that it is not. As to the consultation that is taking place, it is made very clear that that should be the end of it. They have more than enough data at that point to be able to make a decision. That is what we are expecting their advice on, so that politicians can then make a judgment and define the policy.

Q159 Pamela Nash: I have one last question. How often is the group meeting to discuss this matter, and also this may have been affected by the name change, but we could only find minutes, as I said, of meetings to October 2012? The meeting before that was six months before. Is the group meeting more regularly now? Are the minutes of those meetings and the work of the group available anywhere to the public?

Lord Bates: I am not sure what the procedures are on releasing minutes of that group. Alan, have we done that before?

Alan Pratt: We are not routinely publishing those minutes at this stage.

Q160 Pamela Nash: Can I ask why?

Alan Pratt: I am not the chair of the group.

Q161 Pamela Nash: But you can understand why I am asking that question because we have concerns about the transparency and the work of the group, especially as it has taken so long to come to a conclusion. Minutes have been published previously for the predecessor group, or at least under its predecessor title.

Lord Bates: It is a very fair question. You have made the point, which I am afraid I was not aware of, that these minutes have been produced previously and that they are not now being produced. Perhaps I could write on that. I will make my own investigations and then report to you.

Q162 Pamela Nash: Thank you. Lastly, you were going to say how often they are meeting.

Alan Pratt: Quarterly, although there have been instances where an individual meeting has had to be deferred due to other issues getting in the way.

Q163 Chair: I just remind you, Minister, that the Government's overall science and innovation strategy has a big play on openness. Why should this one be any different? I just park that one.

Lord Bates: I take the point.

Q164 Graham Stringer: I am getting concerned at the answers we are getting. Just going back to your questions, Andrew, this Committee was concerned that Professor Silverman had not been involved in the original decisions to change forensic science services because we thought that there were scientific implications. While the commercial sector may well have done DNA fingerprinting and fingerprints more cheaply and more effectively because of the repetitive process, with the changes in the Forensic Science Service it meant that there was a strong chance of losing the contextual analysis of individual forensic evidence where people in the Forensic Science Service could put a lot of different things together, which would not necessarily be commissioned by a police officer just asking for fingerprints. What concerned me was that, in answer to Andrew's question, you did not really answer that point. Have we lost science and is the forensic service less good than it was because of the change? Is it better or is it the same?

Lord Bates: Our view would be, from the evidence of the Crown Prosecution Service, that there has been no loss in edge and that we are keeping pace with the developments in the industry. We can be pretty confident that that is the case.

Q165 Graham Stringer: But surely that just means that they are satisfied with what is commissioned, that the DNA samples and the DNA science are getting quicker and more

accurate all the time, but how would they know that the science and work that was done previously on the context, bringing different things together, from blood-splatter techniques to all sorts of things that are not routinely commissioned, is not being done? That was our concern and why we were concerned that Professor Silverman had not been involved in the first place.

Lord Bates: On the one hand, you have the question of whether too few people were consulted. Now, if anything, we are moving to the other extreme, where there seems to be—

Q166 Graham Stringer: If I can interrupt, it was not about consultation. We had evidence from senior members of the Forensic Science Service saying that it was possible that murderers and rapists would get off because of the changes in the Forensic Science Service. I accept that it is very difficult to show a negative but I would have expected at least some work to have been done in that area. It seems to me, from what you are saying, that it has not been done.

Lord Bates: There is no evidence that that has been a problem. If it were, as you suggest, then that would certainly be something which the forensic science board and the scientific advisers would be expressing a major concern about and demanding action, and rightly so, but they are not saying that. Part of the reason for that is because we are not complacent in it. We are investing in new R and D. Of course, the advantage of having external providers as opposed to one monopoly on forensic science is that they are in a competitive marketplace, they are dealing internationally and they are commercially incentivised to make sure that we are keeping pace with the latest technology and delivering that. That is the reason for the development of rapid DNA techniques, which could be groundbreaking in the ability of law enforcement agencies to quickly, cheaply and effectively solve crime.

Q167 Graham Stringer: I do not think that we are getting any further. The questions were not asked in the first place, and it seems to me that the questions are not being asked now.

Do you have any reliable and complete evidence of how much is currently spent in the private market and in the police in-house forensic science market in the United Kingdom?

Lord Bates: Yes, we do have some evidence. You will be aware, and the Committee is certainly aware, of the report of the National Audit Office which said that the data were not particularly clear in that because of one element, and that was tracking the in-house provisions. Where people used to externally commission, that is easier to track because you have a line item for it. When forces are commissioning internally, it is less clear what the amounts are. As to the amounts that we are working to at the present time, I seem to recall that it is of the order of £80 million which is currently being spent on forensic services. We recognise that we could get better in arriving at that data if there was more transparency in how police forces accounted for in-house provision of forensics.

Q168 Chair: You will be aware that one police force had such a sloppy accountancy procedure that it could not tell us the difference between capital and revenue. That is how bad it is, and that is why, in the interests of the public purse as well as in the interests of criminal justice, this needs tightening up a lot.

Lord Bates: Yes. We were sharing that concern, because the Home Office went to the National Audit Office and asked them to conduct this piece of work, and it has come forward with some recommendations about gaps in the process at the present time. That is now something which is being discussed with Chief Constable Sims of West Midlands police.

Q169 Chair: Can I just remind you, so that there is no ambiguity, that it was we who asked the National Audit Office to look at this, not the Department?

Lord Bates: To try and claim credit for something which should rightly be with the Select Committee must be the most unforgivable sin that a Minister can make. I defer and thank you for your inspiration and encouragement of us to do that.

Q170 Graham Stringer: When will the accounting changes be made?

Lord Bates: There is no date for that. We have just received a report that has come from the National Audit Office. We have not had a chance to be able to say when that should be done. The budgets, as you will be well aware, are a matter for police and crime commissioners and the local chief constables to come up with, so we can offer advice, but they do have an independence which has to be worked with.

Q171 Graham Stringer: In terms of working with different police forces, if a police force wants to bring a particular forensic science service in-house, do you talk to them, does the Home Office talk to them or does ACPO talk to that police force, or do they just independently change the process?

Lord Bates: I presume that they could independently change the process.

Alan Pratt: In practice, they would be talking to the forensic science regulator.

Q172 Graham Stringer: So they would not talk to the Home Office or ACPO about it.

Alan Pratt: The decision as to where to go commercially or internally for the provision of their forensic science capacity is a business decision that forces will be making with their police and crime commissioners.

Lord Bates: The role of the regulator is quite critical because that is something that we have not had before, where we had ISO standards—ISO 17025 accreditation standards—which are upheld by the regulator, therefore ensuring that the standards of work in this

area are of the highest possible level. To date, 13 forces out of the 39 have been accredited for fingerprint enhancement laboratory status and a further 16 have applications in process. So there is some rigour in the process of accreditation.

Q173 Graham Stringer: What are the Government doing to ensure a stable and transparent private and in-house forensic market?

Lord Bates: Mr Stringer, would you repeat your question?

Q174 Graham Stringer: Yes. At the start, I think the answer to the first question was that the change in the Forensic Science Service was because the market was changing. If you have read this Committee's report, we were concerned about there being a stable market and made recommendations to that effect. So what are you doing to ensure that there is a stable and transparent private and in-house forensic market, so that we know what is going on? If the forensic market was to collapse, for instance, it would be very difficult for the criminal justice system. What are you doing to make sure it is stable?

Lord Bates: The regulator has a clear role in that. Alan, do you want to add anything?

Alan Pratt: We have the national framework agreement, which is a set of pre-tendering arrangements that you have heard about previously, which give an opportunity for small and large forensic service providers to have their terms and conditions pre-competed. As and when individual forces or consortiums need to commission those, there is a simplified mini-competition among framework providers that is available to them but not mandatory. We have within the Home Office commercial department a commercial frameworks team that is looking at the financials around the members of that framework. Within policing, Deputy Chief Constable Vaughan from Dorset police is leading on the commercial aspects of forensics. So there is quite a lot of close monitoring of the providers in this space. There is a lot of discussion with the police leads, who regularly interact with the commercial marketplace. We are looking out for soft intelligence on any problems in that space.

In parallel, as the Minister was saying, the role of the regulator is very important in terms of ensuring that the quality of forensic science provision is held at an appropriate level. Where forces are doing analytical work in-house, then the same standards to a timetable that has been set out by the regulator apply both for the police and commercial providers. On DNA, the timetable for the implementation of those was November 2013. As you have heard, we have got 36 police forces with the appropriate accreditation in respect of that.² My understanding is that those who do not have that accreditation do not do that work in-house.

Chair: Lord Bates, you have reinforced our argument as to why the regulator ought to have statutory powers. Again, that is just an observation.

² The witness later clarified that, 32 forces are accredited for DNA.

Q175 Dan Byles: Do you think that the private forensic provision is in a healthy place? Do you think that we have a healthy private forensics market at the moment, because it seems to me that it is shrinking? Although the figures are difficult to get hold of, the figure that the NAO did publish, coming from the Chartered Institute of Public Finance and Accountancy, has suggested that the private sector market has shrunk from £104 million to around £80 million in the space of a two-year time period, while the in-house market expanded from £113 million to £122 million at the same time.

Alan Pratt: On the latter figure, as you say, the figures that appear in different places in the NAO report can be taken in different ways. The larger figure that you describe, I think, takes into account a very wide basket of issues. There is a smaller set of numbers also in the same report where the internal market can be taken as having gone from £50 million down to £35 million recently. It depends exactly what you are counting. That plays to your point.

On the health of the forensic service providers, this is something that we do keep quite close intelligence on. We work very closely with those commissioning services. We work with the regulator; indeed, we have a representative of that industry sitting on the forensic policy group to try and get a handle on those issues. At the moment, the judgment of the commercial marketplace team is that they considered the risk of exit of any of those major providers to be low.

Q176 Dan Byles: What about smaller providers? The numbers appear to have gone down, so it does appear that less activity is now taking place in the private sector of forensics, which may be inevitable given constraints on budgets and the degree of austerity. The NAO expressed concerns that they felt there was not a level playing field, for a number of reasons. They said, for example, that “Private sector forensic firms have to reflect all their costs in tender offers,” whereas the NAO was of the view that in-house laboratories would sometimes put costs into other budgets, so there is potentially not a level playing field between in-house services and private provision.

Alan Pratt: There was previous evidence in your main reports that individual police forces, which are making an in-house or external decision, are very much driven by the full economic costing arguments. It is in their own interests to make sure that they get the most effective and efficient provision in making that decision.

Q177 Dan Byles: We had a public sector forensic service and a decision was taken that that should be moved to the private sector, but we are now effectively seeing the risk of the private sector being replaced once again with a public sector provision, just under another guise and in a more fragmented manner, in the form of a series of in-house provisions. It seems to go against the flow of the whole point behind the change.

Lord Bates: Of course, the precursor to that was the decision to end the monopoly of the Forensic Science Service, so that local constabularies could do that process, which undermined the monopoly in the field and meant that they ended up losing £2 million a year.³ That was the process of it. This area is the subject of rapid change. There is a

healthy group; in fact, there are regular meetings of special interest groups among suppliers, which take place with the Home Office, to ensure that we listen to their concerns. Concerns have been raised about weighing value for money and they need to be looked at carefully. That comes back to the point identified by the National Audit Office about greater transparency on the true cost of in-house capabilities.

Q178 Dan Byles: Is it the case that some police forces have been granted funds from the Home Office police innovation fund to develop their in-house laboratories and, if so, doesn't that again potentially create an unlevel playing field and undermine or disadvantage private sector laboratories?

Lord Bates: The intention certainly is not to develop the laboratories and the capacity. It is to advance the science. That is what the investment has been given for, from the innovation fund. Of course, as the new forms of science come forward there is a natural reduction in cost. That is what technology and science can deliver in every walk of life. It should not be just judging it by the narrow measure of cash spend. Perhaps that is not necessarily the right one and we ought to be looking at other measures, such as successful prosecutions, the number of samples that are processed and how they are doing in terms of delivery.

Q179 Dan Byles: Are you measuring those metrics that you have just listed?

Lord Bates: I realise that the second metrics are part of the data which we want to try and get our hands on, in terms of there being a gap identified by the National Audit Office. That is a crucial bit of data that needs to be measured.

Q180 Dan Byles: The key point is that you are comfortable that this split between some in-house provision and some non-in-house provision is not undermining the potential to have a healthy private sector in the forensic market. You are comfortable that there is not an unlevel playing field and that there is sufficient critical mass for those who don't have in-house facilities, and who are buying it in, to be doing that from a healthy sector.

Lord Bates: Yes. I don't think anybody who has been a Minister in the Home Office would voluntarily use the word "comfortable" about anything. To the point that we feel that the work is going on, that it is a very high standard, that it is being delivered cost-effectively, that research and development is happening and that we are keeping pace with the leading edge, in relation to all of those things, we are quietly confident.

Q181 Dan Byles: You have already answered my next question, but could I tie it down to confirm? It is about giving the regulator statutory powers and ensuring that in-house service

³ The witness later clarified, that the Forensic Science Service was losing £2m a month.

provision is required to be accredited as well as non-in-house. Am I right that you said that all 36 police forces which have an in-house capability are now accredited?⁴

Alan Pratt: For DNA.

Dan Byles: Yes.

Alan Pratt: Yes, that is my understanding.

Lord Bates: The difference in the figures that Alan gave and I gave was that I was talking about enhanced fingerprinting, which is another ISO standard.

Q182 Dan Byles: But in terms of ISO 17025, all of those which have an in-house provision are now accredited. In terms of the consultation that closed on 3 January regarding giving the forensic science regulator statutory powers to enforce quality standards, can you tell us what is happening and what the next steps are following that consultation?

Alan Pratt: Following the consultation, there was a strong view from the people we consulted that there is merit in having a statutory basis for regulatory powers in this area. There was a wide variety of views, again, about what the appropriate scope of regulation ought to be—whether it should be limited to the DNA fingerprints and so on, or whether it should seek to be much broader than that. That coincided with the new regulator coming into post. It was felt inappropriate to go much further with setting out recommendations before the new regulator had a chance to really get into post, to consult widely with the network of people whom she will be regulating and to consider the range of options that were coming out of the public consultation. That is happening now and it is the intention, as I understand it, to publish.

Q183 Dan Byles: So basically there is a second consultation going on. You said you have just finished a consultation period but, because a new regulator has come into post, you are pausing to allow her to do her own consultation.

Alan Pratt: To form her views, in coming into the role, based on her understanding and ensuring that the direction in which she wants to take regulation aligns with what has come out of the consultation.

Q184 Dan Byles: Is there a time frame for that? Obviously we have this minor issue in May.

Lord Bates: Part of it is that Dr Gill Tully, in coming into post on 4 November, wanted to have those conversations. I wouldn't call it a consultation; it's more conversations to make sure that these are exactly the powers that she wants, then the framing of the legislation,

⁴ The witness later clarified that, 32 forces are accredited for DNA.

and of course, as you rightly say, finding a slot in the parliamentary legislative timetable so that those powers can go forward in the form of regulations.

Q185 Dan Byles: So you do not think there is any doubt that that will happen, but it is just a question of when and in exactly what form.

Lord Bates: Yes; exactly.

Q186 Dan Byles: It does seem to me that just because she is having conversations there is no reason why the formal consultation could not be fully published and discussed alongside having those conversations. My understanding—tell me if I am wrong—is that we have not had anything published since 3 January around the consultation that has taken place.

Lord Bates: It is a good point. We will take that away, look at it and see when we can publish it. It would probably make sense to publish the consultation, along with the Government response and the regulations, but we will certainly see what can be done ahead of that.

Chair: A year late, but don't worry.

Q187 Sarah Newton: We have had a very comprehensive discussion on this, and I know that my colleague has been very patient and wants to ask you a bit about malware in cyber crime. Given the time, I am going to restrict my questions.

In-house, in the private sector, we cannot have excellent forensic science in our country without great forensic scientists. One of our concerns from our inquiry is what was going to happen to the Forensic Science Service scientists with the abolition of the service. Back in 2011, the Government did state that it was going to actively monitor the destination of the scientists made redundant or who just left and moved on to make sure that we have the capabilities in our country to deliver this vital service. Can you update us on the monitoring?

Alan Pratt: As you have heard previously, the destination for the people who were in the Forensic Science Service went in a number of directions. We haven't got updated precise figures for where each individual landed, but a good number were taken up by the growing other forensic science service providers. A small number came into central Government and a cohort went into the Metropolitan police, as they brought something that was originally within the Metropolitan police that had been outsourced to the Forensic Science Service back into the Metropolitan police. Undoubtedly, there will have been others who have retired and others who are no longer in forensic science, but we don't have precise numbers.

Q188 Sarah Newton: You have not monitored that. What other steps are you taking to make sure that we are educating the forensic scientists of the future to make sure that we have the skills that we need?

Lord Bates: That is an excellent point. Of course, the essential thing that is happening is this. Just because it is not all in one institution or body, that is not to say that the cumulative of the smaller pieces, which are now at play in different forces around the country, including in the National Crime Agency and the private sector providers, do not amount, roughly, to the equivalent of the whole which existed before. There is some argument that, in the diverse world in which this is happening, you get greater opportunities for scientists to move, and for career progression. There are some examples, through the business innovation fund, of people leaving the service and moving into established and small start-ups in the technology area, and applying the techniques of forensic science to other commercial problems, as well as keeping an interest in that area. We cannot detect that there has been any diminution of the overall forensic science capability in the country. If anything, it has probably been enhanced by plugging it into a broader network internationally.

Q189 Chair: I would like some clarity, Mr Pratt. In response to Sarah, you said that there is a growing number of private forensic science providers. That seems to contradict, although it may not, the NAO report, which says that the private market is shrinking.

Alan Pratt: The NAO is commenting on the total value of police spend for forensic science provision. As the Minister was saying earlier, much of that reduction in spend has been increased efficiency, so reduced unit costs, but the total amount of spend as a measure of market size rather than the total number of players—

Q190 Chair: And you think it is going to a larger number of companies.

Alan Pratt: The main frameworks are still around three main large forensic science providers, but there are many smaller niche providers around the edges. As the scope continues to increase in things that we hold to be important in helping the criminal justice system with scientific evidence, we are only going to see a broadening of that, particularly in digital forensics.

Q191 Stephen Mosley: I think it is about four years since we did our inquiry into cyber security and malware. At the time, the Government were quite clear that “Get Safe Online should be the single point of reference for the general public and small businesses on internet security”. In the intervening four years, we have seen a number of other websites grow up. When and why did the Government change their mind about Get Safe Online being the single point of entry?

Lord Bates: Perhaps I could take this opportunity to update you on a couple of the statistics relating to the platform and then I will deal with the specific question about Get Safe Online. Of course, Get Safe Online is an independent not-for-profit organisation. It averages about 70,000 visitors per month. Her Majesty’s Government, along with private sector sponsors, supports GSO and has provided approximately £500,000 in total funding for it. Cyber Streetwise is a website which has had 694,100 unique visitors since its launch in January 2014. On average, the site has 60,000 visitors per month. The campaign is

wider than the website and includes a mixture of online and offline advertising, PR and video shorts, focused on campaigns, core behaviour and messaging. Online videos and passwords, which are directed towards the small and medium-size enterprises, have to date over 1.7 million views since launching in October 2014. In total, all videos have had more than 5 million views since January 2014.

Dealing with the specific question, there is one Government site and campaign, which is Cyber Streetwise. Get Safe Online is an independent not-for-profit organisation which provides valuable information. In addition, Get Safe Online has raised awareness of various safety issues for the past nine years. There is merit in having multiple channels to increase the reach of messaging and, together with Cyber Streetwise and GSO, we provide good sources of information and advice for the general public and SMEs, and signpost to each other appropriately.

Q192 Stephen Mosley: I fully understand what you said there. I personally think that Cyber Street is a fantastic website, it has a lot of information on it and it is really good, but at the time when we asked the Minister the specific question in 2011-2012, were told that it would be policy that Get Safe Online would be the main portal. It was said that it “would be a single point of reference for the public”. That is what the Minister said at the time. Why did that policy change?

Lord Bates: I do not have a clear answer, I suppose, is what I am saying, Mr Mosley, as to why that policy changed, except, as part of the cyber crime reduction partnership that we have and the across-Government cyber strategy, we took the view that having more than one channel was better as a way of raising awareness and we were able to target different demographics, different groups and perhaps reach different audiences but with very similar messages.

Q193 Stephen Mosley: A number of schemes have been launched over the past two or three years. Cyber Street is one. The National Fraud Authority has launched its public awareness campaign. The cyber crime reduction partnership has put in a lot of work. Is there any evidence that these campaigns are leading to information seeping down to consumers and small businesses, and that small businesses and consumers are better protected now than they were three or four years ago?

Lord Bates: The threat is greater. There is evidence to say that people are more aware of it. Driving up cyber knowledge at the local policing level has been very important. The Government are investing £860 million over five years through the national cyber security programme to respond to cyber problems. The College of Policing—because the other element of this is the successful prosecution, which comes back to some of the issues we were touching on in forensics—is a critical element of this. They have been taking a lead role in providing e-learning modules on cyber crime aimed at police officers and their staff. I gave the statistics about the number of hits which have been made on the sites. They target particular demographics. For example, they target women aged 35 to 50 because of what is called the “halo” effect that they have. These people are very active

online themselves but, as mothers and people with influence, they can have a greater reach of influence about promoting safety.

Q194 Stephen Mosley: You mentioned policing. It is a few years since we did our inquiry. At the time, there was a feeling that individual police officers, for a lot of the time, did not feel able to tackle issues relating to cyber crime. During the past three or four years, what have the Government done to mainstream the police service's capacity and ability to tackle cyber crime?

Lord Bates: Part of it is the College of Policing, which was established under this Government, and its programme in trying to provide more information about how to identify, track and prosecute. We have also simplified the process for members of the public to report cyber crime. Action Fraud, which is run by the City of London police force, is the national reporting service for fraud and financially motivated cyber crime. It covers all police forces in England and Wales. Those are just some of the things that we have been doing to enhance the ability of the police to intervene in this area.

Q195 Stephen Mosley: In terms of the outputs, is there any evidence that they have been successful?

Lord Bates: In terms of the outputs, I will ask Alan if he has anything to hand that we could offer in relation to that. I do not think we have any specific statistics, but I will happily write and provide some additional statistics on the outputs, but the inputs have been growing.

Q196 Chair: It would be interesting in particular to see that there has been progress in persuading police forces that what are individually small-scale scams and so on, but which collectively are enormous, are actually crimes, because there was a period where many police forces did not treat issues like that as crimes.

Lord Bates: Yes.

Alan Pratt: That is a key reason why using Action Fraud as a portal to be able to collect individual reports wherever they may lie jurisdictionally gives us a better chance to spot the pattern of organised crime that lies across all of that rather than treating each one as a potentially localised individual event.

Chair: It would also be helpful to know how many police forces have dedicated officers who are the points of contact for the public on cyber crime, because it is a very specialist subject.

Q197 Jim Dowd: I want to look briefly at the area of cyber security before, Lord Bates, you go off to prepare yourself for giving your statement, which I have just noticed you are giving in the House this afternoon.

Lord Bates: Nobody has told me yet.

Jim Dowd: That's probably a bigger shock than answering my question. Life is full of surprises in this place, as you well know.

Lord Bates: It is.

Q198 Jim Dowd: I want to look at cyber security. Have the Government done anything to involve ISPs, again following on from what Stephen said in the report that this Committee published earlier? In their response, the Government said that they would try to involve ISPs more closely in assisting users to defend against malware, botware, hacking and all the rest of it. If they have done anything, is there any evidence that it has improved online security?

Lord Bates: Following the publication of the internet service providers' guiding principles in December 2013, the signatories formed a working group to co-ordinate and monitor progress made in these areas. The Department for Business, Innovation and Skills and law enforcement continue to work in partnership with ISPs to minimise and mitigate the internet cyber threats. The National Crime Agency's Operation Toolbar was one of the largest industry and law enforcement collaborations attempted to date. Activity in several countries, led by the FBI in the US, weakened the global network of infected computers operating CryptoLocker or GO Zeus, meaning that the public could take action to protect their computers from these malware programmes. This is a growing area of collaboration which we are seeing. We have in Joanna Shields, who is now a Member of our House, the Prime Minister's adviser on cyber security. In fact, today both she and the Prime Minister are heading to Washington to take part in a cyber summit. One of the items on the agenda is cyber security, following recent attacks. This is something that is very interesting because ISPs are waking up to the fact that, in order to protect the future of their platforms and businesses, they cannot be immune to the fact that people are using their platforms for illegal purposes and that they have a responsibility in that area. That is one of the reasons why this group was set up, the guiding principles were established and the adviser was appointed. I do think there is progress in this area.

Q199 Jim Dowd: In response to the report, the Government said that they would continue to consider software standards as part of the work of the Department for Business, Innovation and Skills with GCHQ to analyse the whole range of standards currently available and determine how we may best work with them to develop appropriate ones further. Could you update us on the analysis of the wide range of software standards currently available? How are the most appropriate ones being identified and what work is being undertaken to develop them?

Lord Bates: The Government are concerned that software is trusted, reliable and secure. We have therefore created the trustworthy software initiative under the national cyber security programme funding to provide criterion advice on good software. The creation of good software is mainly about using good principles and techniques. The trustworthy software initiative guidelines are driving standards at work that seek to provide universally

accepted marks of good software. In terms of what is happening out there, the National Cyber Crime Centre has recently established—of course, this is an international and borderless problem in many ways—a centre in Romania where we are seeking to track particular problems back. It is an international problem.

Q200 Jim Dowd: Is that because Romania is particularly active in this area or is it a tax fiddle?

Lord Bates: It is going to act as a co-ordinating body for all of the Council of Europe capacity-building activity relating to cyber crime, so it is not particularly a criticism of Romania—I should put that on record. Romania is simply a location for that work to happen with our Council of Europe colleagues in tackling this. We have the Council of Europe and the European software initiative. The Government cannot work in this area alone. It is absolutely critical that we have a partnership of industry and the internet service providers in particular. I think we are beginning to get that.

Q201 Jim Dowd: Fine. The only other question I had was about what work the Government are doing with industry to embed and strengthen cyber security and IT systems. I think you have just covered that, unless you want to say any more.

Lord Bates: Except by referring back to the cyber crime reduction partnership and the national cyber security strategy, which are the twin vehicles by which we are directing that effort.

Chair: Lord Bates and Mr Pratt, thank you very much indeed for your attendance this morning. We look forward to the additional material.