



Fingerprint Quality Standards Specialist Group (FQSSG)

Notes of the meeting held on 25 February 2016
at Room GD, 5 St.Philip's Place, Colmore Row, Birmingham, B3 2PW

1.0 Welcome, Introduction and Apologies

1.1 The Chair, Gary Pugh, welcomed all to the meeting. A full list of attendees and apologies is provided at Annex A.

1.2 The Chair welcomed Mark Bishop from the Crown Prosecution Service to his first meeting of the FQSSG. Christophe Champod of Lausanne University had joined the committee but was unable to attend this meeting. It was highlighted that Christophe Champod is ideally suited to provide academic input to the validation plan for the fingerprint search algorithm which is in development and the committee were encouraged to circulate this work to Christophe Champod.

Action 1: June Guinness to contact Christophe Champod and invite him to review the validation plan for the fingerprint search algorithm.

2.0 Minutes of the last FQSSG meeting on 11 November 2015

2.1 The minutes were approved as an accurate reflection of the discussion held and the Secretariat was asked to proof read and then publish the minutes. The minutes from the meeting on 10 June 2015 were also approved for publication.

Action 2: Secretariat to proof read and publish the minutes of the meetings held on 10 June 2015 and 11 November 2015.

3.0 Actions and Matters Arising

3.1 The latest version of the fingerprint information document for court had been finished and circulated to members. This is a basic information document which fingerprint experts can adopt and customise for their own use and contains the important aspects of the Regulator's standards within it. In cases involving complex comparisons of fingerprints, there will be a requirement for fingerprint examiners to develop their own documents for the benefit of the courts. It was agreed that the document could be signed off by the FQSSG and would be adopted by the Regulator and published as a Regulator's information document. It would be important to notify the

fingerprint community that the fingerprint information document had been developed and the FQSSG must ensure that the Strategic Fingerprint Network and the Fingerprint Governance Groups are made aware of the document.

3.2 The group had previously started developing a technical primer for use in the courts and the FQSSG had commissioned this work and requested feedback. It had been raised that, Lord Thomas was keen that where alternative methods exist for the interpretation of evidence these should be included in the primer along with the rationale for the approach taken in the UK. The primer setting out the different approaches to the interpretation of fingerprint evidence was being developed by others and the FQSSG and the Forensic Science Regulator were not involved in the development of the primer but were able to contribute if requested and offer advice.

Action 3: June Guinness to produce a final version of the information fingerprint document for court and publish it as a FSR's information document. June Guinness and Chair to make the Strategic Fingerprint Network and the Fingerprint Governance Groups aware of the information document.

3.3 The Terms of Reference for the FQSSG were approved for publication.

3.4 The committee discussed the difference of opinion/dispute resolution process and noted concerns in relation to how a number of disputed cases had been handled. The FQSSG thought that there should be a standardised process and a mechanism for referral of cases in the future. Members of the FQSSG had developed a document setting out a structured framework for handling significant differences, which included the arrangements, process and details of how to set up a review panel so that all panels worked to the same approach. Basic general details were included in the framework which forces could draw on when developing their own standard operating procedures. The FQSSG endorsed the document provided at the meeting.

3.5 Members discussed the process and highlighted that whilst significant differences /disputes in relation to fingerprints are rare, when they do occur they are usually critical to the case and have a high impact. Forces had put informal processes in place to deal with external review of a fingerprint comparison and this new framework will allow standardised processes to be adopted. The framework which had been drafted was not intended to direct experts to come to the same conclusions and where differences of opinion were held these would be reported and the conclusions would be drawn together to form the final report. Once a panel had reported it would be for the court to make a final decision. The Committee thought it important that the external review process be triggered by the profession and not by the court and putting this structure in place would trigger a review before cases got to court and ensure that information goes to court in an accurate and detailed format.

3.6 The committee considered how to ensure that forces adopt this process given that no organisation exists which is able to mandate

compliance. It was thought that there would be value for individual police forces adopting this approach in relation to gaining accreditation as accreditation bodies would look at processes for dealing with different outcomes for the same case when assessing organisations. It was agreed that the document should be published as an appendix with the minutes of this meeting¹ as an agreed structured framework. The framework would also be shared with the Forensic Science Advisory Council (FSAC) and the Fingerprint Governance Group.

Action 4: The external review framework to go to the Forensic Science Advisory Council and the Fingerprint Governance Group and then published.

3.7 The action for Karen Georgiou and Neil Dennison to test the calibrated metric scales on the live fingerprint processing work was still on-going. This is a mechanism for testing the quality of images as they are captured and processed. In order to set standards in this area a calibrated scale with ultra high resolution was being developed to place adjacent to the mark to assess image quality.

Action 5: Karen Georgiou and Neil Dennison to update at the next meeting on testing the calibrated metric scales on the live fingerprint processing work.

3.8 The action for the FQSSG to feedback on the CAST proficiency tests was discussed and members had fed back but these had not been forwarded onto CAST. The committee noted that proficiency tests are an important aspect of accreditation and there is a requirement for an organisation to produce proficiency tests.

3.9 The currently available proficiency tests were discussed which included the CTS (Collaborative Testing Services) test which is accepted by UKAS along with inter-laboratory comparisons. The European Network of Forensic Science Institute (ENFSI) also provided a yearly proficiency test for fingerprints which is free of charge to members but the service is restricted and preference is given to members. Further proficiency tests were provided by Competency Assessment Service Ltd (CAS).

3.10 Members heard that Forensic Access had sent out a survey recently to providers inquiring about proficiency and quality assurance tests to find out which tests the organisations might be interested in purchasing. The committee had reservations with the commercial provision of proficiency tests outside of the central governance of forensic science. The committee highlighted a requirement for a central quality integrity unit which crosses all of forensics. At this stage the committee did not feel the need to escalate the issues to FSAC as inter-laboratory (bureau) comparisons provided a mechanism for proficiency testing.

¹ The FSR has expressed the intention for this to be published as an annex to the Forensic Science Regulator's Codes of Practice & Conduct for Fingerprint Comparison (FSR-C-128).

4.0 Review of the National Fingerprint Learning Programme

4.1 Jo Taylor, Policing Standards Manager from the College of Policing provided a presentation on a Review of the National Fingerprint Learning Programme (NFLP).

4.2 The existing NFLP was implemented in 2006 and delivered by the National Police Improvement Agency (NPIA) and the College and Crime Academy. A number of issues had been raised by the fingerprint community about the existing NFLP including: changes in working practices and systems, changes to legislation, changes in practitioner roles, staff reductions, collaboration and reliance on bureau training. In order to update the existing NFLP, the College of Policing had commissioned a two phase approach which included: phase 1 – definition of needs and phase 2 – development of the learning solution.

4.3 As background, the committee heard that the operational function of the police fingerprint bureaux had changed and there was a desire for local and regional delivery.

4.4 In updating the existing NFLP, the approach had been taken to identify the requirements and needs of the fingerprint professionals and develop a plan to address those needs. The community wanted a national training structure and product to maintain the current level of high quality practitioners and to deliver a consistent approach to fingerprint activities. The training should take all newly appointed officers to non-reporting practitioner level with an additional stage available to enable officers to become reporting officers. In particular, a modular approach to training was requested with a series of events over a flexible timescale to suit force and individual requirements. The committee noted that retention of staff was a big issue for police forces and the modular approach to training would help address this issue. However, caution was expressed in regards to a modular approach that resulted in insufficient training or a sub-standard level of training. A blended approach to learning was also sought with a mix of classroom, e-learning and evidential portfolios.

4.5 The question was raised whether a 'professional' register should be maintained and whether this would be a help or a hindrance in assessing competencies. The Chair indicated that this had been tried previously and the current regulatory model is based on fingerprint experts building up a portfolio of work which they can use to demonstrate their competence as part of accreditation.

4.6 Once the new NFLP has been developed the College of Policing would consult with the following groups: the Fingerprint Governance Board (via the Fingerprint Strategic Network), the Forensic Science Regulator and the Police Forces. The FQSSG expressed their interest in inputting to the process and reviewing any further proposals once they are developed.

5.0 AFIS / Algorithms / Validation

5.1 The committee heard about a preliminary investigation by the Metropolitan (Met) Police on the next generation of an Automated Fingerprint Identification System (AFIS) algorithm. The findings were significant and allowed auto-encoded searches to take place where-by a mark can be uploaded to the system and searched without a human intervention. The Met Police had developed a plan outlining a more thorough evaluation which had been shared with the Home Office and the FSR for review. Whilst this evaluation may not strictly fall within the remit of the FQSSG the Regulator had considered that the group were well placed to undertake this work and to pull in other partners where appropriate, including the Ministry of Defence who had expressed an interest to be involved. Whilst this validation would satisfy overarching regulatory requirements, once adopted, individual forces would need to undertake local validation in line with their accreditation process.

5.2 This technology is potentially transformational and could have considerable business impact. The committee anticipated that the Home Office would deliver the algorithm in 2018/19.

5.3 Previously the committee had discussed commissioning a contractor to develop the quality standards framework that would apply to the use of the AFIS algorithms which would be included in future revisions to the appendices to the Regulator's code. This would not be commissioned at the moment and the committee would consult with Christophe Champod on the development of quality standards for AFIS algorithms.

Action 6: June Guinness to inquire whether Christophe Champod would be able to assist with the development of quality standards for the AFIS algorithms.

5.4 Members discussed the Home Office Biometrics Programme Whitepaper on optimisation of the Police fingerprint process. The paper outlined a centralised, national approach to standardising the fingerprint process and the committee highlighted a number of concerns about this approach. The Chair offered to approach the authors to discuss this.

5.5 The committee highlighted that multiple tools were required in this business due to the different types of cases that are dealt with and alternatively the Home Office should considering making appropriate tools available to the police forces. The FQSSG's role would be to set the standards for how those tools should be used. The FQSSG emphasised the importance for the Home Office to engage with the appropriate communities who are operationally involved in this work in order to understand the problems and limitations with the current tools to ensure that future tools are developed which respond to business requirements and benefit the users. It was agreed that the committee would discuss this again at its next meeting.

Action 7: Committee to discuss at its next meeting an update on the Met Police's evaluation of the AFIS algorithm and how these findings might provide input to the Home Office process for optimisation of the fingerprint process.

6.0 Fingerprint Image Capture

6.1 The Chair reminded the group that with the completion of the fingerprint comparison standard, the group had decided on three work streams. These were AFIS algorithm, Fingerprint Image Capture and Fingerprint Enhancement. In relation to the fingerprint imaging the committee had decided that a new appendix to the Regulator's code was not required but instead the work would be incorporated into the Fingerprint Enhancement standard. The committee were content with the fingerprint imaging content for the appendix which had been provided and agreed that the accreditation process would test if the details were sufficient. It was clarified that the focus was on understanding imaging capture and processing systems and managing the risks associated with them.

7.0 Fingerprint Enhancement

7.1 The Chair thanked Lisa Hall for her help developing the Fingerprint Enhancement document. A technical consultation had been undertaken on the document and feedback had been sought from UKAS and their technical assessors as well as from the profession. Where appropriate, the feedback had been incorporated into the document. The UKAS technical assessors had suggested that the laboratories be re-named as fingerprint visualisation laboratories rather than fingerprint development/enhancement laboratories however this change was not incorporated as most fingerprint laboratories would need to be re-branded.

7.2 Under the section on organisational responsibility, discussion was held about the nominated senior responsible person, in terms of top management, who would support the quality standards and be accountable for ensuring the requirements set out in the appendix were met. The standards caused a shift towards organisations being accountable rather than individuals and therefore it was agreed that this individual should be at top management level, such as chief executive or chief officer level and not laboratory manager level.

7.3 The committee agreed that the wording in the document must be tight to ensure that facilities adopt the standards in their entirety and that there isn't the option of opting out of some parts of the standards.

7.4 The Fingerprint Enhancement and Fingerprint Image Capture standards now need to be combined into one document and Lisa Hall agreed to do this and then send to June Guinness to finalise and for proof reading. The document would then undergo a public consultation, during which the Quality Standards Specialist Group and the Forensic Science Advisory Council would

be able to comment. It would also be important to ensure primary users are made aware of the public consultation through the appropriate networks.

Action 8: Lisa Hall to combine the Fingerprint Enhancement and Fingerprint Capture standards into one document and send to June Guinness to finalise.

Action 9: June Guinness to launch a public consultation of the combined Fingerprint Enhancement and Fingerprint Capture standards.

8.0 Accreditation update

8.1 Gary Holcroft provided an update on the Scottish Police Authority's (SPA) progress for obtaining accreditation. The SPA had been recommended for accreditation but was still waiting for a definitive response and for the final sign off from UKAS. They were expecting that there would be caveats with the award of accreditation and also for an unannounced visit from UKAS at some point over the next few months. The committee heard that SPA had applied for accreditation for all of their fingerprint activities including accreditation of the search process of IDENT1.

8.2 The committee discussed an incident where IDENT1 produced a number of miss-matched results where fingerprints were wrongly assigned to individuals. The bureaus affected had been informed and it was understood that the errors occurred as a result of work being undertaken on a server which caused some of the data to be corrupted. The committee were greatly concerned about this and highlighted a pressing need for root cause analysis and good communication in these instances. The issue highlighted the discrepancy between the levels of scrutiny and regulation which are in place in relation to DNA profiles held on the National DNA database compared to the fingerprint arena. The issue had been escalated to the Home Office, the Forensic Science Regulator and UKAS and it is understood that a review is underway and a report would be submitted to the Regulator. It was agreed that the report should also be submitted to the FQSSG for review.

Action 10: FQSSG to review the report into errors occurring on IDENT1 as a result of corrupted files when it is available.

9.0 AOB

9.1 The group had been invited by UKAS to nominate individuals to be assessor applicants for UKAS and it was suggested that there were individuals on the original list who could be put forward again.

Action 11: Iain Borthwick to find out the names on the original list of assessor applicants and feed this back to Katherine Monnery in UKAS.

9.2 UKAS will be holding accreditation laboratory management courses on 8 and 10 March and places were still available. UKAS restructure is now complete and there would be further recruitment for assessment managers and UKAS will be holding another technical assessor day for the current technical assessors in April.

9.3 As part of the process to get the fingerprint bureaux's accredited the regulator is funding the costs of up to 10 technical assessor days with a maximum of 2 days per bureaux being funded on a first come basis. West Midlands have used a day and a half for their assessments and the remaining days would be carried over to the next financial year.

9.4 The Chair asked Karen Georgiou, representing the NPCC lead on Quality and Performance to provide an update on police forces progress towards the achievement of ISO 17025 for fingerprint comparison. A discussion should be held at a future meeting as to the progress that police forces have made getting 17025 accredited and the current timescales.

Action 12: Agenda for the next FQSSG meeting to include '17025 police force comparison implementation update'.

9.5 The committee heard that a number of defence forensic experts were claiming that they did not need to follow the language and terminology recommended by the Regulator in the codes of conduct and practice. The Chair agreed to speak with the Regulator about this.

10.0 Date of next meeting

10.1 The dates set for the next FQSSG meetings were; 8 June 2016, 28 September 2016, 15 December 2016 and 23 March 2017.

Annex A

Present:

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| Gary Pugh, Chair | Director of Forensic Services, Metropolitan Police Service |
| Mark Bishop | Crown Prosecution Service |
| Iain Borthwick | Greater Manchester Police, Forensic Services Branch |
| Karen Georgiou | Bedfordshire Police |
| June Guinness, Scientific Lead | Forensic Science Regulation Unit |
| Lisa Hall | Metropolitan Police Service |
| Gary Holcroft | Scottish Police Authority |
| Emma Burton-Graham, Secretariat | Home Office Science Secretariat |

Apologies

Apologies were received from:

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| Christophe Champod | Lausanne University |
| Neil Denison | West Yorkshire Police |
| Katherine Monnery | United Kingdom Accreditation Service |
| Richard Small | West Midlands Police |