



Fingerprint Quality Standards Specialist Group (FQSSG)

Note of the meeting held on 23 March 2017 at Sir Alec Jeffreys Building, Peel Avenue, Wakefield, WF2 7UA.

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.

2.0 FQSSG Chair change

2.1 The Chair informed the group that he would be standing down as Chair of FQSSG after this meeting due to other responsibilities. He welcomed the new Chair, Gary Holcroft from Forensic Services, Scottish Police Authority, and noted that this was an opportune time to hand over the chairmanship of FQSSG as the group pressed forward with addressing a number of key challenges.

3.0 Minutes of the last FQSSG meeting on 15 December 2016

3.1 The previous FQSSG minutes were approved as an accurate reflection of the discussion held subject to a minor amendment and the Secretariat was asked to publish them.

Action 1: The FQSSG Secretariat to publish on GOV.UK the minutes of the FQSSG meeting held on 15 December 2016.

4.0 Actions and Matters Arising

4.1 **Action 9: June Guinness to lead with the production of a draft 'Technical Assessors' Guide' to gaining fingerprints accreditation to ISO 17025 for fingerprint comparison.** This item had not been progressed however the group thought that a technical assessors guide would be helpful and were keen to support the work.

Fingerprint calibrated metric scales

4.2 Members were provided with an update on the outstanding actions regarding the testing of the fingerprint calibrated metric scales. The Metropolitan (Met) police and West Yorkshire police services had undertaken assessments of the scales which would allow the resolution of images to be monitored and very small distances to be measured. When implemented, the purpose of the scales would be to show that the same level of quality could be

seen on a recovered print as a print *in situ*. Following the assessments, those testing the scales had been satisfied with the performance of the equipment however there were uncertainties as to which substrate would be best for the recovered prints and the current labels used were unsatisfactory. The ideal substrate for recovered prints would be acetate with a calibrated scale on it however the cost of these might be prohibitive and the alternative would be a scale that would need to be calibrated. It was suggested that the Home Office transforming forensics project might present an opportunity to explore whether the ideal substrate for recovered prints could be purchased in bulk as a potential cost saving approach.

4.3 It was determined that fingerprint bureaux should be responsible for developing their own systems to ensure that they have both: (a) a calibrated scale to show that the quality of lifted prints are as high as those *in situ* and (b) that they have processes in place to ensure the chain of custody of prints so that second and third generation prints can be traced back to a source print. It was noted that there might be a trade off between speed of recovery of prints and optimum quality and decisions would need to be made. The action would be closed on the actions list but this topic could be discussed in the future.

SPA accreditation issues

4.4 Gary Holcroft from the Scottish Police Authority (SPA) had produced a note setting out the timelines and guidance for gaining accreditation to ISO 17025 standard in fingerprint comparison. The group were informed of the importance of leadership with the appropriate management team in place leading the processes and the necessity for support from senior management within the organisation. The appropriate behaviour and knowledge of first line managers was considered important.

4.5 Organisational commitment was also highlighted as a necessity including ensuring engagement and buy-in from all staff in order to embed a cultural change within the organisation and ensuring that staff who had prior experience of UK Accreditation Service (UKAS) assessments were involved in the process. Engaging staff with the development of standard operating procedures was suggested as a good mechanism in order to engage staff and to encourage them to raise non-conformities.

4.6 It was recommended that a gap analysis should be undertaken to identify the difference in requirements between ISO 90001 and ISO 17025 and for a project plan to be developed to determine how these gaps would be bridged. The importance of having processes in places which were well established, prior to UKAS audits, was emphasised. This would be necessary both before pre-assessments and full assessments.

4.7 Pre-assessments were discussed and whilst these had been considered extremely valuable by the SPA during their journey to gaining accreditation, UKAS stated that they would be undertaking less pre-assessments for existing customers in the future. The rationale provided was

that if an organisation already had an existing quality management system in place, then the majority of information which would be covered in a pre-assessment would already be available to that organisation. Members of the group put forward the view that bureaux might still require support in gaining accreditation to ISO 17025 but understood that this was not the role of UKAS and recognised that this presented a conflict of interest in certain circumstances. Individual organisations should discuss any potential requirements for a pre assessment well in advance with their UKAS Assessments Manager

4.8 The committee heard that Thames Valley Police were coordinating the fingerprint landscape and obtaining details of when each bureaux was planning to apply for accreditation. The group agreed that they should have visibility of this plan in order to track the likelihood that the October 2018 deadline for accreditation would be met and to advise the Regulator accordingly. Whilst it was noted that collective learning could be very valuable in this process, individual bureaux would need to gain accreditation for their own process which would not be possible via a group approach.

4.9 Holding workshops and inviting quality managers and a responsible officer from each bureaux to attend was agreed as a suitable mechanism for supporting bureaux to gain accreditation. Arranging the workshops would come under the remit of this group and the Regulator would fund them. SPA agreed to assist with the running of the workshops and Richard Small and Neil Denison agreed to coordinate a response from police forces whether they wished to attend one of the workshops. It was agreed that either two or three workshops would be held in locations that would facilitate attendance and information would be provided in advance which would outline what individuals could expect to learn.

Action 2: Richard Small and Neil Denison to coordinate a response from individual police forces to determine numbers who wish to attend a workshop about gaining accreditation to ISO 17025 for fingerprint comparison.

4.10 It was noted that the replacement of Ident1 with a new Automated Fingerprint Identification System (AFIS) should not impact on bureaux gaining accreditation to ISO 17025. Implementation of a robust quality management system whilst using IDENT1 would provide a platform from which to gain a robust integration of the new AFIS in the future. The group heard that one of the primary goals of the Home Office Biometrics (HOB) programme was to ensure that it was centrally validated and that the comparison decisions made by the new AFIS would be embedded in the quality management system. The FQSSG would continue to provide its input as to the requirements for the new AFIS and representatives from the HOB programme would attend the workshops in order to develop an understanding of the requirements for the AFIS.

4.11 The other actions from the previous meeting were reviewed and the actions were either complete or were separate items for the meeting.

5.0 Updated FQSSG Terms of Reference – sign off

5.1 The FQSSG were provided with an update terms of reference and were invited to sign it off. The terms of reference had been broadened and a representative from the HOB programme had been included. There was agreement for the terms of reference to be proof read and then published.

Action 3: The terms of reference to be proof read and publish on the Regulator’s website.

6.0 Work streams/sub-groups sign off

FSR-C-127 – Fingerprint Visualisation and Image Capture

6.1 The Code of Practice and Conduct on Fingerprint Visualisation and Image Capture (FSR-C-127) was provided to the FQSSG. A consultation and technical review had already been undertaken on the document. Feedback had been requested since the technical review. The group heard that the Regulator’s Quality Standards Specialist Group had been provided with the document and had been given two weeks to provide comments. The FQSSG were given two weeks to provide any comments and corrections and then the document would be sent for proof reading.

Action 4: FQSSG members to provide comments and corrections to the Code of Practice and Conduct on Fingerprint Visualisation and Image Capture (FSR-C-127) within two weeks.

FSR-C-128 – Fingerprint Comparison

6.2 The Code of Practice and Conduct on Fingerprint Comparison (FSR-C-128) was provided to the FQSSG. This document had been updated to ensure concordance with the code FSR-C-127 and also included a process for external review of complex finger mark comparison. The FQSSG were given two weeks to provide any comments and corrections, paying particular attention to the highlighted sections and then the document would be sent for proof reading.

Action 5: FQSSG members to provide comments and corrections to the Code of Practice and Conduct on Fingerprint Comparison (FSR-C-128) within two weeks.

FSR-I-402 – Fingerprint Examination – Terminology, Definitions and Acronyms

6.3 An Information document on Fingerprint Examination – Terminology, Definitions and Acronyms (FSR-I-402) was provided to the FQSSG. Members were invited to comment on the modifications which had been made and to consider whether there were any omissions. Clarification was sought about

whether there were two or three true characteristics. The document listed three characteristics in one section: ridge ending, bifurcation and dot. Yet in another section dot was considered to be a feature not a characteristic. It was agreed that there were only two characteristics (ridge ending and bifurcation) and the document would be amended to clarify that dot was a feature.

6.4 It was suggested that 'Magna Flake Power' should not be included as it is a trade name and including 'Magnetic Flake Powder' would be sufficient. It was also suggested that Electrostatic Detection Apparatus might be a trade name and this should be checked.

6.5 The definition of 'accreditation' which had been provided in the document was not thought to be readily understandable and it was suggested instead that UKAS's definition of accreditation should be adopted¹.

6.6 The representative from the HOB team agreed to check the HOB glossary and determine if there were definitions within it which would be helpful to the readers of these documents. The FQSSG were given two weeks to provide any further comments and corrections and then the document would be sent for proof reading.

Action 6: FQSSG members to provide comments and corrections to the information document – Fingerprint Examination – Terminology, Definitions and Acronyms (FSR-I-402) within two weeks.

Action 7: Graham Camm to determine if there are any definitions within the HOB glossary which would be helpful to the readers of the Fingerprint Examination – Terminology, Definitions and Acronyms information document.

7.0 Accreditation and Updates

HOB – Fingerprints/Regulation Update

7.1 An update was provided on the elements of the HOB programme that were relevant to fingerprints. Members heard that the Strategic Biometric Services Gateway had been successfully delivered phase 1. This gateway would be an enabler for latent mark searches to be launched from IDENT1 and IABS and longer term convergence of IDENT1 and IABS.

7.2 The FQSSG heard that the development of a new Strategic Matcher Project was in progress with the aim of going live in the middle of 2018. The Strategic Matcher would combine three algorithms; ten-print, latent mark and orthogonal. The HOB programme were approaching the stage of getting approval to go out to tender. The intention was to secure long term contracts.

¹ UKAS definition of accreditation is 'Accreditation is the formal recognition that an organisation is competent to perform specific processes, activities or tasks (which are detailed in a scope of accreditation) in a reliable credible and accurate manner.'

7.3 The Strategic Central and Bureau Platform was at the stage where procurement was planned in April. Workshops had been held to determine the products and features that were currently available to the bureaux and to determine in future the tools that HOB should provide and those that should be provided by the individual bureau.

7.4 The group heard that the capture standards had been defined for the Strategic Mobile Project. The programme were continuing with the approach that HOB would provide police with a rapid search API and the police forces would procure and implement their own biometric identification in the mobile apps. Engagement with the police forces on this would continue.

7.5 The group heard that in relation to the Livescan Refresh Project, the initial pilot stage in West Yorkshire bureau had been completed and the refresh of the entire estate was expected by the end of 2017. The Livescan dis-aggregation project planned to continue to use live scan hardware but with new software installed on it with the aim to maintain the existing biometric capture process. A survey was being distributed to assess the scale of use of Livescan for 'non-custody' processes.

7.6 An update was provided on Prüm and an approach to a fingerprint pilot had been agreed between the UK and Germany. A team from Germany and the HOB programme would work together in the future to develop the UK Prüm Fingerprint solution. The group heard that implementation of this by the end of the year would present a challenge. Members welcomed the update on Prüm and noted that there would be a role for the FQSSG in this work as it develops.

7.7 It was noted that there was considerable variability in relation to the uptake of mobile fingerprint solutions and members thought that this area required further debate to determine the circumstances when mobile fingerprint solutions would be utilised. Police forces had found the current mobile devices to be too expensive to purchase however the approach going forward would be for the forces to continue to use their existing devices and apps. In the future, there might be a requirement to bring forces together in order to achieve a cost effective price for mobile devices and apps however this was not thought to be within the scope of the FQSSG.

7.8 Members heard that when fingerprints formally come under the scope of the National DNA Database and Fingerprint Strategy Board, the board will have oversight of the provider base and equal oversight will be given to the quality of fingerprints as is currently given to DNA. The quality of ten prints will come under the scope of the Strategy Board which will allow a quality regime to be implemented. There is a requirement to ensure standards in the taking of fingerprints both at force level and at user level and the Strategy Board would have oversight. The group heard that a document existed which outlined the standards required for livescan prints in immigration settings which sets out the requirements that the ten prints must meet in order to be loaded to the reference dataset. The HOB representative agreed to share this document with the FQSSG.

Action 8: Graham Camm to share the standard used in immigration that outlined the requirements for livescan prints prior to loading to a reference dataset.

7.9 Members queried whether the Codes of Practice and Conduct contained sufficient level of detail on the quality of ten prints (reference data) loaded to the reference dataset. It was agreed that the wording would be checked.

Action 9: June Guinness to determine whether the Codes of Practice and Conduct contained sufficient level of detail on the quality requirements for reference databases, that would apply to ten print sets loaded to the reference data set.

CAST – Ground Truth Datasets for HOB

7.10 The Centre for Applied Science and Technology (CAST) had been asked to produce a small ground truth dataset for HOB for testing of the strategic matcher. A comprehensive consent form had been developed to cover multiple biometrics and the collection of samples had already started. Discussions were held about the requirement for a ground truth dataset which reflected the data held on IDENT1, for end to end validation of the new AFIS system. It was queried whether individual police forces could provide their own local ground-truth data to contribute to a national data-set, if the necessary consent was obtained. It was clarified that the ownership of the data would stay with the local police forces but would be shared with the HOB programme. As the focus of this group was on quality, the group's main concern was whether the data would be sufficient for the range of tests that were required to validate the process.

Force Fingerprint Accreditation/NPCC Performance & Standards Update

7.11 Members heard feedback from a meeting of the National Police Chief's Council (NPCC) fingerprint board and that it had been agreed that bureaux gaining accreditation to ISO 17025 was a priority. A letter had been sent to all police forces reminding them of the deadline for gaining accreditation for fingerprints, which was October 2018. A roadmap had been developed which included the dates that each force planned to gain accreditation.

UKAS update

7.12 UKAS informed the group that they were undergoing recruitment again for assessment managers and that so far they have not received a large number of applicants. They would also be interviewing the technical assessors which the FQSSG had put forward later in the year.

College of Policing update

7.13 A questionnaire had been sent out to fingerprint bureaux to determine their training requirements. A prioritisation plan had been developed and in the up-coming six to twelve months, products would be rolled out for license delivery. The College of Policing had also started to determine which fingerprint treatments were available within fingerprint laboratories and to develop a gap analysis to determine where techniques might be lacking.

8.0 AOB

8.1 CAST in collaboration with the European Network of Forensic Science Institutes (ENFSI) would be undertaking a collaborative exercise to develop fingerprint proficiency tests which would be made available to both ENFSI members and non-members. In the long term, an organisation with accreditation to a proficiency testing standard, would be contracted to manage the proficiency testing. Police forces who were interested were invited to be involved in the collaborative exercises..

Action 10: June Guinness to email the FQSSG with contact detail for obtaining further details on the ENFSI future collaborative exercises to develop fingerprint proficiency tests for any interested police forces.

8.2 The in-coming chair, Gary Holcroft gave formal thanks to Gary Pugh for his chairmanship of the group.

14.0 Dates of future FQSSG Meetings

14.1 The dates of the next two FQSSG meetings had been set as 29 June 2017 at Greater Manchester Police and 5 October 2017 (N.B. this was subsequently changed to 3rd October and would be in Birmingham hosted by the Regulators Office).

Annex A

Present:

Gary Pugh, Chair	Director of Forensic Services, Metropolitan Police Service
Helen Bandey	Centre for Applied Science and Technology
Duncan Brown	College of Policing
Emily Burton	Greater Manchester Police Service
Emma Burton-Graham	Science Secretariat, Home Office
Graham Camm	Home Office Biometrics Programme
Christophe Champod	Lausanne University (R&D, ENSFI)
Neil Denison	West Yorkshire Police (Fingerprint Strategic Network)
June Guinness	Scientific Lead, Forensic Science Regulation Unit, Home Office
Lisa Hall	Metropolitan Police Service
Gary Holcroft	Scottish Police Authority
Cheryl McGowan	Chartered Society of Forensic Science
Katherine Monnery (via teleconference)	United Kingdom Accreditation Service
Richard Small	West Midlands Police (NPCC, Transformation Forensics)
Thomas Vincent	Science Secretariat, Home Office

Apologies:

Apologies were received from:

Mark Bishop	Crown Prosecution Service
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