Questions

1. Is forensic science contributing to the delivery of justice in the UK?

Forensic science has, over the years, had a substantial and increasing role in enabling the criminal justice system to fairly determine the outcome of criminal charges against individuals, ensuring fairness to individuals and helping to protect society at large.

2. What are the current strengths and weaknesses of forensic science in support of justice

The key current strength of forensic science in support of criminal justice in the UK is the existence of large biometric databases (for DNA profiles and fingerprints), which can by confirming (or otherwise) a match to a known individual, enable the identification of (or elimination of) individuals relevant to an inquiry. The governance and oversight arrangements in place for the DNA and fingerprint databases from a legal, operational, policy, ethical and privacy perspective by the Forensic Information Databases Strategy Board (FINDS-SB) supported by the Biometrics and Forensics Ethics Group (BFEG), are appropriate and provide a model for new biometric modalities used in a forensic context.

The weaknesses focus around the relative lack of funding to support strategic translational research which builds on the rapid progress in the basic sciences and technologies upon which forensic science relies. A lack of funding and the absence of an effective strategic overview and co-ordination mechanism, means that the focus of development in forensic science is partly evolving out of individual case investigation decisions and by developments driven by commercial providers seeking an application for their technology.

3. What is the scientific evidence base for the use of forensic techniques in the investigation and prosecution of crimes? Are there any gaps in that evidence base?

It important that robust algorithms are developed to interrogate large biometric databases and properly utilise the information that they hold to secure justice for victims of crime.

5. What is the level of understanding of forensic science within the Criminal Justice System amongst lawyers, judges and juries? How can it be improved?

In forensic science, the challenge for the scientist and the judge is to ensure that the underlying processes are sufficiently understood and testable for a fair trial, without unduly compromising the public interest in other ways.
It is vital that informed public debate takes place around developments in forensic science and the ethical issues associated with new technologies to ensure that juries consider evidence reliable and fair. Acting in a transparent manner will ensure the legitimacy and acceptability of forensic science. Without public debate and scrutiny of innovations in forensic science – through the media, ethics committees, professional bodies and legislatures – the acceptability of forensic practice may be undermined.

6. Is the current training available for practitioners, lawyers and the judiciary appropriate?

The ethical failings exist around expert witnesses presenting evidence in areas outside of their expertise. Inappropriate use of summary forensic reports in certain contested cases indicates the need for more effective training to ensure that experts are confident in identifying and expressing the boundaries of their expertise and that prosecuting authorities understand the procedures with respect to forensic evidence.

Since new forensic techniques are developed by iterative processes, it is important that those involved in the criminal justice system understand the limitations and uncertainties associated with them. Understanding the limitations of new techniques is underpinned by the Forensic Science Regulator setting new standards in practice and reporting.

9. What role should the Forensic Science Regulator have? If the Forensic Science Regulator is to have statutory powers, what should these be?

The Forensic Science Regulator should be given statutory powers to raise standards in forensic science and provide clarity and certainty to those taking part in the Criminal Justice System. Granting statutory powers to the Forensic Science Regulator will secure a transparent system in which courts can have justifiable confidence.


Any strategy concerned with ensuring provision of scientific techniques to support a modern criminal justice system requires transparency to ensure quality. Effective public engagement and explanation will be required to build public trust and understanding.

12. How should further research funding for forensic science be justified? What should be the focus of such research? What is the role of UK Research and Innovation, especially considering the interdisciplinary nature of much forensic science?

Developments in forensic science will improve the quality of the criminal justice system, which in a civilised society is a primary role of the state. It is fundamental to upholding order to ensure that the system is objective, fair and acceptable to citizens’ fundamental needs.
14. How can a culture of innovation in forensic science be developed and sustained? Are there current or anticipated skills gaps? Who should have responsibility for and/or have oversight of training?

All involved in provision of the Criminal Justice System should have an understanding of the limits of their own knowledge and a desire to improve and develop forensic science. Whilst innovation should remain a key focus in development, it is also important that training instils a value system to ensure that the evidence base is not only scientifically, but also ethically underpinned.

17. Is enough being done to prepare for the increasing role that digital forensics will have in the future? Does the Criminal Justice System have the capacity to deal with the increased evidence load that digital forensics generates?

The large-scale collection and storage of information from individuals amounts to an intrusion into the individual’s privacy. Those setting the boundaries for what is acceptable forensic practice must properly evaluate the harms and benefits that flow from the act of obtaining and using the information – to the individual whose data is gathered, and to other individuals who are affected. This must be balanced against the consequences of not acting: both the act and the omission have moral consequences.

Recent data on poorly conducted disclosure indicates issues authorities have in handling large amounts of data. The increasing number of sources of information and the use of artificial intelligence to interrogate publicly available, State held and privately held databases will continue to raise questions of privacy and proportionality.

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