Written evidence from Dr Emmanuel Nsiah Amoako (UKR0065)

This response has been authored by Dr Emmanuel Nsiah Amoako, a Lecturer in Forensic Science at the University of the West of England, Bristol. Emmanuel completed his PhD in 2021 which looked at the role of the Forensic Since Regulator and whether it is fit for purpose. He has published research articles from this Ph.D. thesis in international peer-reviewed journals, some of which are referenced in this submission. Emmanuel's journey in academia has been inspired by the role and impact of forensic science on miscarriages of justice, both as a cause and solution, and building on his multi-disciplinary background in Law and Forensic Science, his research interest is in forensic science regulation, quality assurance, and improvement, with a special focus on forensic science activities that are difficult to regulate yet have a huge impact on the quality of forensic science service provision. He has an interdisciplinary understanding of forensic science, forensic expert evidence/witness, and wrongful convictions.

This submission focuses on the role of the Forensic Science Regulator (FSR) in the UK.

1) Are UK regulators being given a clear job to do?

1. In 2007, the role of the Forensic Science Regulator was established to "advise Government and the Criminal Justice System on quality standards in the provision of forensic science." This was to involve "identifying the requirement for new or improved quality standards; leading on the development of new standards where necessary; providing advice and guidance so that providers will be able to demonstrate compliance with common standards, for example, in procurement and in courts; ensuring that satisfactory arrangements exist to provide assurance and monitoring of the standards and reporting on quality standards generally. The regulator was to be supported and advised by a Forensic Science Advisory Council. These arrangements, according to the then Home Secretary, drew on the recommendations of the report 'Forensic Science on Trial' which was published by the House of Commons Science and Technology Committee on 16 March 2003."[1]

[1] 'Home Secretary Statement for the Establishment of the Forensic Science Regulator'

2. In 2021, following consistent reports that the FSR has been ineffective in getting all Forensic Science Providers (FSPs) to comply with regulatory requirements, the FSR was provided with statutory powers through The Forensic Science Regulator Act 2021. The regulator has now been given the statutory backing to publish a Code of Practice (s.2), investigate FSPs (s.5), and issue compliance notices (s.6) if the regulator believes that a person is carrying on a forensic science activity to which the code applies in a way that creates a substantial risk of—

    (a) adversely affecting any investigation, or

    (b) impeding or prejudicing the course of justice in any proceedings.

Compliance with the Codes is admissible in evidence in criminal and civil proceedings in England and Wales, where a court may consider such a failure by a person to act in accordance with the Codes (s.4). A study has already investigated the expectations of FSPs from the statutory powers. While it is expected that the statutory powers could instil a sense of urgency among police force forensic science units in particular, in prioritising quality and investing in accreditation, overall, there are significant capacity limitations that may hamper more widespread and sustainable change, such as financial pressures faced by FSPs, as well as resource constraints within the FSR.[2]

3. The question of whether the FSR has been given a clear job to do, and whether it has been successful in achieving the purpose for which it was established has been asked in recent academic publications.[3] To be able to answer this, a brief review of the rationale and the purpose

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<https://publications.parliament.uk/pa/cm200607/cmhansrd/cm070712/wmstext/70712m0002.htm#07071262000011> accessed 5 February 2018.

[2] Emmanuel Nsiah Amoako and Carole McCartney, 'Swapping Carrots for Sticks: Forensic Science Provider Views of the Forensic Regulator Act 2021' (2022) 62 Science & Justice 506.

[3] Emmanuel Nsiah Amoako and Carole McCartney, 'The UK Forensic Science Regulator: Fit for Purpose?' (2021) 3 WIREs Forensic Science e1415; Carole McCartney and Emmanuel Amoako, 'The UK Forensic Science Regulator: A Model For Forensic Science Regulation?' (2018) 34 Georgia State University Law Review 945.

of the FSR role is needed. The words "rationale" and "purpose" are intentional because "to design an effective regulatory framework, it is important to define a clear overall purpose based on a good understanding of the issues that regulation is intended to address".[4] Without these, it will be difficult to determine whether the FSR has been effective or not (question 10 of this enquiry).

4. In the forensic science context, the organisations that provide forensic science services, known as FSPs, are classified as high reliability organisations because of the high potential for errors to occur at any stage of their process of providing forensic services, from the crime scene to the courtroom.[5] These mistakes can and do lead to miscarriages of justice. As a result, both mistakes in forensic science and the consequent miscarriages of justice that these may cause are risks (defined as the probability of a danger occurring and the consequent severity of the impact of that danger) that threaten public confidence in the quality and reliability of forensic science. Therefore, risk mitigation—controlling the occurrence of mistakes in forensic science is (or should be) the main rationale for any regulation in forensic science.
5. The website of the FSR states that the "Forensic Science Regulator ensures that the provision of forensic science services across the criminal justice system is subject to an appropriate regime of scientific quality standards."[6] It was not until 2014 that this became the "purpose" of the FSR, as was reported in the 2014 annual report of the then FSR (Prof Gillian Tully). A review of documentation pre-2014 concerning the FSR role never captured a clear purpose of the FSR. Rather, there have been variations in the terminologies to describe the "job" given to the regulator, such as aim, role, and priorities. This has

[4] National Audit Office, 'Principles of Effective Regulation' (2021) 11 <https://www.nao.org.uk/insights/principles-of-effective-regulation/>.
[5] Max M Houck, 'Risk, Reward, and Redemption: Root Cause Analysis in Forensic Organizations' (2016) 7 Forensic Science Policy & Management: An International Journal 106.
[6] https://www.gov.uk/government/organisations/forensic-science-regulator/about

created confusion, different perceptions, and expectations for the FSR, in terms of the intended outcomes expected of the FSR role and appropriate metrics to judge regulatory effectiveness.[7]

6. As it stands, the assumption is that a lack of quality standards for forensic science service provision in the UK was the rationale that necessitated regulation. Quality Standards simply refer to the level of attainment of quality of a product, process, or service that is thought to be acceptable or meet certain requirements. They are used to communicate what level of quality is expected from FSPs. Quality Standards for forensic science existed before the creation of the FSR. The ISO standards 17025 and 17020, respectively, for laboratory and crime scene forensic science activities are used internationally to manage risks in forensic science. These standards have been interpreted to make them specific for the forensic science sector through the ILAC G19:08/2014 Modules in a Forensic Science Process. While there are limitations in these documents, such as lacking specific details for some specific forensic science activities, such as the evaluation of forensic evidence, this has been addressed through the work of the European Network for Forensic Science Institutes. FSPs internationally can comply with these standards via accreditation without needing any regulation to do so, and FSPs in the UK had done so before the establishment of the FSR. However, the challenge was that this was not centrally managed and lacked coordination. Therefore, even in developing the FSR Code of Practice for forensic science practice in the UK, the Codes were built on these existing quality standard documents, and individual FSPs were accredited to the ISO standards before being required to be accredited to the FSR Codes.
7. Therefore, for the more pressing issues that necessitated the need for an FSR, "developing standards and monitoring compliance", could only be a minor issue or one of the means to an end (ensuring and

[7] Nsiah Amoako and McCartney (n 3).

improving quality for reliable forensic practice). Arguably, a major concern was that the commercialization of forensic science, which started in the early 1990s, could have a huge adverse impact on the quality of forensic science services. In 1993, a Royal Commission on Criminal Justice report (the 'Runciman Report'), after reviewing miscarriages of justice cases in the UK identified unreliable forensic practitioners as a major cause of miscarriages of justice cases in the UK. It consequently recommended that a Forensic Science Advisory Council (FSAC) (i.e., a regulator) be established "to support two aims": "objectivity and impartiality of forensic scientists; and a "proper arrangement for quality assurance and performance monitoring." In achieving this purpose, several responsibilities (not to be confused with purpose) were recommended. But even more importantly, the report further noted that the introduction of service charging and competition for forensic service provision by private FSPs and state-owned FSS appears to be a good way of ensuring that the charges made by the public sector laboratories are reasonable and that the services they offer will meet the customers' needs. However, it recommended that the FSAC should ensure that "undue competitiveness in the forensic science service purchasing does not lead to a diminution in standards."[8]

8. In 1993 and 1996, two independent reviews by a House of Lords Committee on Science and Technology, and Professor Brian Caddy further made recommendations for regulating individual forensic science practitioners. This recommendation was finally fulfilled in 1999 through the creation of the Council for the Registration of Forensic Practitioners. However, as the forensic science sector expanded through the influx of private FSPs, the practitioner-only regulation became incapable of addressing the newer risks to the quality of forensic science which was beyond forensic practitioners, i.e., the adverse implications of pricing and competition on quality. Therefore in

[8] Royal Commission on Criminal Justice, *Report* (HMSO publications 1993) 144–161 <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271971/2263.pdf>.

2003, a House of Commons Science and Technology Committee in their report Forensic Science on Trial recommended the creation of a Forensic Science Advisory Council to "oversee the regulation of the forensic science market and provide independent and impartial advice on forensic science"[9] Like the Runciman report in 1993, it had been clear as of 2003 that marketization would have huge adverse implications on the quality of forensic science services.

9. However, in "fulfilling" this recommendation, a quality assurance regulator instead of a market regulator was established. The view was that the Regulator will set standards and individual police forces will demand higher standards as part of their procurement of any forensic services from private providers. However, this arrangement was criticised. It was thought that the quality assurance regulation sits uncomfortably with the free-market principles and that the regulator can become either "a force that would orchestrate forensic science services, not the laws of supply and demand beloved of free marketers; or a myopic and toothless creature that will be irrelevant at best and the invisible hand of market exchange will go to work on forensic science services unrestrained."[10] All major reviews of forensic science in the UK have highlighted the occurrence of the latter, and unfortunately, the FSR role has become ineffective in addressing the adverse impact on quality from marketisation of forensic science. Some reported instances include:
    - Price-driven forensic service commissioning is causing the collapse of private FSPs which leads to expensive bailout in some cases or risk of discontinuation of forensic evidence in some criminal cases.[11]

[9] House of Commons Science and Technology Committee, 'Forensic Science on Trial - Seventh Report of Session 2004–05' (2005) 28 <https://publications.parliament.uk/pa/cm200405/cmselect/cmsctech/96/96i.pdf>.

[10] Paul Roberts, 'What Price a Free Market in Forensic Science Services - The Organization and Regulation of Science in the Criminal Process' (1996) 36 British Journal of Criminology 37, 57.

[11] Gillian Tully, *Forensic Science Regulator Annual Report 2017* (2018) <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/674761/FSRAnnual_Report_2017_v1_01.pdf> accessed 26 January 2018.

- Rationing of forensic service commission based on cost and economic reasons, putting quality and justice at risk.[12]
- There is more interest in cheaper services than those are carry evidential weight but are expensive. Forensic science commissioning by police forces appears to give less attention to the forensic service delivery process where FSPs can apply scientific rationality holistically, by interpreting forensic evidence.[13]
- Cuts to forensic submissions by police forces, starving the CJS of valuable forensic science of the required quality; evidence of unsustainable strain on staff working overtime; and the loss of skilled forensic science practitioners.[14]

10. The difficulty is that the regulator has no remit over the pricing of forensic services nor any other economic issues concerning forensic science. Since 2014, it has been a high-priority for the FSR role that FSPs who have not adopted the relevant quality standards are not routinely instructed by legal professionals or contracted by police. However, this has been difficult to achieve, and instances have been reported in the courtroom, where experts who have been repeatedly, and seriously, criticised by the courts, and those who have failed to meet the required quality standards are instructed to provide evidence in a substantial number of cases [[9], p. 27]. Without any power over the market, the FSR is unable to have any control over who should be eligible to provide forensic services to police forces and law enforcement agencies. Accreditation has been a requirement for outsourcing forensic services. However, this has not been consistently applied across the marketplace. It is therefore clear that while the FSR is portrayed to be regulating all things forensic science in the UK, this a misleading title, and the FSR has not been given a clear job to do. What we have now is a complex system of regulation where external

[12] RJ Flanagan, 'Cut Costs at All Costs!' (2018) 290 Forensic Science International e26.
[13] Christopher Lawless, 'Policing Markets: The Contested Shaping of Neo-Liberal Forensic Science' (2011) 51 The British Journal of Criminology 671.
[14] Tully (n 11).

factors undermine the quality of forensic science services and yet a nominal FSR is unable to address these risks because the government has not provided them with arms to do so.

11. The general collective interests of police forces, forensic commissioning, and procurement process appear to incentivise cheaper prices and quicker forensic service provision, while the Regulator faces difficulty in ensuring that equal priority for quality permeates each stage of the process of forensic science service provision, from the crime scene to court.

10) What mechanisms and metrics could be used to hold regulators accountable on a regular and ongoing basis and to judge whether a regulator is performing well?

12. Under the assumption of the "purpose" of the FSR described above, over the years, the effectiveness of the FSR has been demonstrated through quantitative measurements, such as the number of quality standard documents provided by the FSR, the number of accredited FSPs and the number of quality-failure investigation conducted by the FSR. While this approach of performance measurement is focused solely on the deliverables of the FSR, they do not tell the impact on the quality of forensic science provided by FSPs (such as whether the occurrence of quality failures and/or their severity have minimised). Therefore, the approach of performance measurement is too inward-looking instead of showing how the regulation is making impact on the ground. As a result, when instances of occasional quality failures do occur, they tend to dilute the achievements of the FSR role. Some of these cases include the failures at Randox Testing Services in 2017 and Metropolitan Police Forensic Science laboratory in 2018, both of which held UKAS accreditation to the appropriate standards, yet malpractice and misconduct had occurred and remained undetected over five years. While these were occasional failures, more than 10,000 cases were impacted,[15] with consequent threats to the public

and criminal justice confidence in the quality and reliability of forensic science.

13. Indeed, there are no tangible metrics now for the FSR to demonstrate their impact on the quality of forensic science. Arguably, this is because although the FSR concerns quality, the specific purpose is unclear, and hence assessment of regulatory performance lacks consistency. As a result, assessing the successes of the FSR role has been a nuanced approach, depending on the priorities and objectives of appointed Regulator. Quality simply means features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs. Quality forensic science should therefore satisfy some stated or implied needs of forensic science service users, and the FSR should aim to assure or improve quality. Yet. there are no benchmarks available to satisfactorily measure quality, and hence, the performance of the FSR in the form of changes or improvement to the achievement of these benchmarks.

11) Do any of the UK's international comparators address the above questions particularly well? What lessons, if any, can the UK learn from other jurisdictions on these matters?

14. Internationally, the UK is in a unique position in terms of having a single 'regulator' forensic science. While other countries have agencies, commissions, or bodies with similar responsibilities to the UK's FSR, such as developing standards for forensic science, a direct international comparator may be difficult to find in terms of similarities in the overriding purpose of regulation. Arguably, the Care Quality Commission (CQC) in the UK is a good comparator to the FSR, in terms of the purpose of these regulations. Both the FSR and CQC are concerned with the quality of services. However, unlike the FSR, the CQC has a clear purpose: to "make sure health and social care services provide people with safe, effective, compassionate, high-quality care

[15] Tully (n 11).

and we encourage care services to improve." To achieve this purpose, the CQC, as its responsibility, registers care providers; monitors, inspects, and rates services; takes action to protect people who use services; speaks with an independent voice, publishes views on major quality issues in health and social care. The clarity in terms of purpose and responsibilities of the CQC perhaps, has shaped, the way they capture their performance measurement, and in 2016, the National Audit Office, showed the CQC's approach to performance measurement as an exemplary model. The approach captures not only the inputs and outputs of CQC but also the outcomes (how the input and output of CQC is having some impact on service providers).

15. Consequently, the CQC has established clear metrics for quality and has been intentional in capturing how they are assuring and improving quality. They adopt a range of methodologies to collect data to help them keep track of the quality of care that services provide. While some are inward (self-assessment) of how it is undertaking its role, some are about the quality of the care itself (the impact of the role of the commission on the actual service provided by care providers. This includes data collection from service providers and service users.

16. The FSR can improve by having a clear and realistic purpose established through consensus from the FSR, FSPs, the wider forensic science community, the CJS and judiciary, government and forensic science policy-makers, and other interested parties. Clear metrics for performance measurement can then be developed from this performance measurement, with sufficient funding for the FSR to collect data to address gaps in knowledge and understanding of how the FSR is having impact on quality forensic science in the UK.

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