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SCOTTISH POLICE

Meeting	Authority Meeting		
Date	25 August 2021		
Location	Video Conference		
Title of Paper	Forensic Services Themes and		
	Achievements		
Presented By	Tom Nelson, Director of Forensic		
	Services		
Recommendation to Members	For discussion		
Appendix Attached	Presentation: Themes and		
	Achievements		

PURPOSE

To present Forensic Services Themes and Achievements for Members consideration.

This paper is for discussion

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1. BACKGROUND

1.1 This report includes a presentation on Forensic Services Themes and Achievements reflecting back on changes in forensic science over the past 41 years.

2. FURTHER DETAIL ON THE REPORT TOPIC

- 2.1 SPA Forensics Services Director Tom Nelson retires on 30th September 2021 after more than 41 years spent working as a Forensic Scientist.
- 2.2 In the attached presentation, he reflects on some of the key changes across forensic science during his career and looks at how SPA Forensic Services was created, has evolved and is prepared for the future.

4 FINANCIAL IMPLICATIONS

4.1 There financial implications are noted in this report.

5. PERSONNEL IMPLICATIONS

5.1 There are no direct personnel implications associated with this paper.

6. LEGAL IMPLICATIONS

6.1 There are no legal implications associated with this paper.

7. REPUTATIONAL IMPLICATIONS

7.1 There are no reputational implications associated with this paper.

8. SOCIAL IMPLICATIONS

8.1 There are no social implications associated with this paper.

9. COMMUNITY IMPACT

9.1 There are no community implications associated with this paper.

10. EQUALITIES IMPLICATIONS

10.1 There are no direct equality implications associated with this paper.

11. ENVIRONMENT IMPLICATIONS

11.1 There are no direct environmental implications associated with this paper.

RECOMMENDATIONS

Members are asked to discuss the contents of the Forensic Services Themes and Achievements report.

Themes and achievements



Tom Nelson, Director of Forensic Services



In the beginning: forensic science in 1980

- Limited scientific interpretation
- Low level of discrimination blood groups typically 1 in 1000's
- Hand-written reports no computers
- Lack of regular capital investment
- Restricted professional support services



Move to Scotland: forensic science in 1995

- Worked in Lothian & Borders Police laboratory
- Reported into the Head of CID
- Scene examiners and fingerprints still part of the Force
- Early use of DNA
- Little use of intelligence gathered by scientists
- Limited capital investment and support

A single service: forensic services in 2007

- Creation of a national Forensic Service SPSA
- Bringing together regional staff for the first time
- Four different labs using different equipment and methods
- Four limited scopes of accreditation
- Scene examiners incorporated into the new national service
- We sought to build a quality-driven system









Impartial and independent: the FS way







- Independent/Impartial
- Best scientific practice starting at the scene
- Optimisation
- Early engagement of expertise
- Holistic oversight
- Best forensic evidence, interpretation and presentation

Modernising and renewal

- Opening of Dundee laboratory in 2010: purpose-built £23.3 million investment in Forensic Services and a new home for more than 100 highly-skilled and trained staff
- In 2012: Forensic Services moved from a geographical to a discipline-based model
- More flexible provision and a greater consistency of forensic service across the country



Fingerprint public inquiry

- Public Inquiry over 1997 case involving Shirley McKie
- Forensic Services accepted all recommendations in the 2011 inquiry report
- I made a personal apology to Shirley McKie and her family
- Forensic Services went on to became the first large-scale forensic provider in the UK to be awarded accreditation by UKAS for fingerprint comparisons in 2016





Creation of Scottish Police Authority in 2013

The role of Forensic Services was enshrined in law.

The Police and Fire Reform (Scotland) Act 2012 states:

"The Authority must provide forensic services to the Police Service, the Police Investigations and Review Commissioner and the Lord Advocate and procurators fiscal"



Partnership working: Scottish Crime Campus

• Opening of new Scottish Crime Campus at Gartcosh in 2013



- £75 million investment in justice sector
- Largest of the four Forensic Services offices
- State-of-the-art facilities
- Bringing together justice partners under one roof
- Allowing closer working with Police Scotland, COPFS, & justice partners



Cutting-edge technology: DNA 24

- In 2015 SPA invested £6 million in the latest DNA technology
- More sensitive and microscopic amounts of DNA can now be analysed



- Allows increased separation of mixed samples of DNA
- Breakthrough in cold cases including this year's conviction of Graham McGill for murdering Mary McLaughlin in her Glasgow flat in 1984
- After more than 30 years, a cold case review revealed opportunities using DNA 24 technology



Reviews and a time for change

SPA: Operational Review identified need for significant improvements in Forensic Services

HMICS: without changes the delivery of forensic services will be "at risk"



Improved governance

The SPA Forensic Services Committee was established in October 2018 by the Scottish Police Authority and provides oversight and scrutiny to the work Forensic Services and is open to the public

Ensuring impartiality

- As Director of Forensic Services, I report to the Chair of the Scottish Police Authority
- Forensic Services do not come under the remit of the Chief Constable of Police Scotland – both organisations report separately to the SPA, reinforcing independence and impartiality of our service
- An annual review of Forensic Services strategic performance is published as part of the SPA's Annual Review and laid before Parliament



Looking ahead: taking a strategic approach



FORENSIC SERVICES 2026

SPA Forensics Services today

- Forensic Services now deliver world-leading forensic service from the crime scene to the court
- We are the largest public sector forensic organisation and among the largest forensic organisations in the UK
- We have more than 550 highly-trained and skilled scientists and staff, committed to Scientific Excellence for Safer Communities who work with Integrity, Professionalism, and Impartiality
- Our people are at the heart of our ability to deliver forensic services for the people of Scotland



What has changed over the years

- Where there had been limited scientific interpretation now Forensic Services is providing significant intelligence
- Now able to use more discriminating statistics in the millions and billions compared with the low thousands forty years ago
- Computerisation, automation, and digitisation have transformed how we now work
- Step improvements achieved from capital investments
- Professional support services from Police Scotland for ICT, P&D, procurement, estates, and strategy
- Scrutiny and accountability at SPA and FSC

Quality embedded into our service

FORENSIC SERVICES 2026

- UKAS accreditation
- Increasing in scope
- Working to support PS



of Accreditation		Scottish Police Authority Forensic Services Issue No: 049 Issue date: 28 January 2021			
Scottish Police Authority Forensic Services	1873 Accredited to ISO/IEC 17025-2017	Scotlish Crime Campus Craignethan Drive Gartcosh Scotland G69 8AE	Tul: +44 (E-Mail: cr	ct: Craig Donnachia 6 (8) 1236 818488 : craig donnachie@spa.pnn.polica.uk Is: www.spa.polica.uk	
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Testing Laboratory No. 1873	Laboratory locations:	Locations covered by the organi	Lation and the	ir relevant activities	
Is accredited in accordance with International Standard ISO/IEC 17025:2017 – General Requirements for the competence of testing and calibration	Location details			Activity	Location cod
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Matt Gantley, Chief Executive Officer United Kingdom Accorditation Service	Address Nidson Street Adarbsen Adarbsen Adarbsen	Contact Craig Downschie Tet: +44 (0) 1238 818108 E-Mail Craig downschießbys pro polics als Webste: www.sps.police.ak		Forenaic Aculyaia	•
Initial Accreditation: 1 July 1998 Certificate Issued: 26 March 2020					

Joined-up justice



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How these benefit Forensic Services

These external links have led to important work and development for staff, including me:

- Staff chairing many ENFSI groups
- Supporting the Forensic Regulator for England & Wales
- Criminal Cases Review Commission for England & Wales
- Grenfell Tower fire
- Oklahoma bombing



The future for Forensic Services

Forensic Services 2026 Strategy

- New Operating Model Capability based. Working with partners to improve our current service. Strategy currently being refreshed
- Post Mortem Toxicology
 - £6m investment by Scottish Government a vote of confidence in Forensic Services
- > Biometrics
 - Working closely with the new Biometrics Commissioner on ethical and human rights issues
- Digital future
 - Supporting Police Scotland to achieve accreditation

Value of forensic science: so difficult to measure

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