



# BEST VALUE REVIEW OF SCIENTIFIC SUPPORT AND SERVICES

## FINAL REPORT

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Best Value



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## 1.1 Introduction

## 1.2 Purpose and Scope of Document

- 1.2.1 Section 3(1) of the Local Government Act 1999 places a statutory obligation on Police Authorities to conduct Best Value Reviews of its key services and functions. Bedfordshire Police is obliged to deliver those services in an efficient, effective and economic manner and in a way that will support the achievement of the Force's main aims and objectives.
- 1.2.2 This report presents the key findings and recommendations of the Best Value Review of Scientific Support and Services within Bedfordshire Police which was undertaken between February and June 2005.
- 1.2.3 The review focuses on the three main disciplines embraced within the Scientific Services Department (SSD), the effectiveness of these services within the current organisational structure and their contribution to the 'end to end' processes that aim to bring more volume crime offenders to justice.
- 1.2.4 The authoritative HMIC report 'Under the Microscope Refocused 2002' acknowledged that *"the contribution to the detection of both major and volume crime which comes from forensic science and fingerprints is clear and substantial"*.
- 1.2.5 Specifically the review has taken account of best practice available nationally, relevant authoritative literature and the findings of other Best Value Reviews. The review has also been assisted by the findings of a parallel running external project called SWIM (Scientific Work Improvement Model) that has reviewed management structure, resources and processes (See Appendix C for SWIM Headline Recommendations).

## 1.3 Organisational Structure

- 1.3.1 The Scientific Services Department (SSD) comes under the control of Specialist Crime Services Division and is made up of three disciplines:
- 1.3.2 *Scenes of Crime:*
- 1.3.3 Scenes of Crime Officers operate in three teams on territorial divisions and are responsible for an efficient evidence retrieval system and for ensuring continuity of evidence. They are supported by the recently established Forensic Resource Management Unit (FRMU) who are responsible for allocation of work to the SOCO.
- 1.3.4 *Imagery:*
- 1.3.5 The Imagery Unit process all photographs from scenes of crime and produce albums for court. In addition to still photography, the unit includes a Video Analysis Unit to process video evidence to support police investigations and a Chemical Laboratory to develop and enhance forensic lifts from scenes.

### 1.3.6 Fingerprint Bureau:

- 1.3.7 The Fingerprint Bureau is made up of two teams who are responsible for the processing of Tenprint Fingerprint Forms through to analysis, recording and storage stages and the comparison of recovered impressions with impressions of a known identity.
- 1.3.8 These disciplines are supported by a Submissions Unit that quality controls and processes forensic submissions destined for external service providers.
- 1.3.9 Overall management of the three disciplines comes from the Scientific Services Manager (SSM) who operates from the centre, with day-to-day supervision for the Scenes of Crime function managed on the individual divisions (See Section 5.2: Organisational Structure).

## 1.4 Definitions

### 1.4.1 End to End Process:

This can be defined as all the processes that rely on Scientific Services involvement beginning with scene attendance by SOCO to evidence recovery and transmission to the relevant internal department (Imagery and Fingerprint Department) or external agency (Forensic Science Service) for further evidential development. The final process under the scrutiny of this review sees the conversion of the forensic yield into a fingerprint or DNA identification that is conveyed to divisions for offender disposal outcome (See Appendix E - Process Map).

### 1.4.2 Volume Crime:

Defined by the ACPO Technical Support Working Group as ' those crime categories that are of a statistically high incidence and for which:

- Targets for reduction or detection have been set within a force policing plan;
- We have shared targets in any crime and disorder partnership;
- Assessment has determined them to be of local tactical importance.

### 1.4.3 SWIM:

Scientific Work Improvement Model produced in conjunction with the Police Standards Unit by an external source that will analyse system data and produce a process improvement report.

## 1.5 Main Aims of Review

- To determine the timeliness, cost effectiveness and quality of service delivered by Bedfordshire Police to victims of volume crime through all elements of scientific services **[Consult]**.
- To determine how the services of all three individual disciplines are currently provided throughout the force, the need for such service provision and recommendations as to how improvements can be made by examining alternative business operating models **[Challenge]**.
- To compare this Force's performance with other forces and organisations delivering scientific services **[Compare]**.
- To determine and examine the options for alternative or collaborative provision of scientific services throughout the three disciplines **[Compete]**.

- To provide a baseline and set performance improvement targets in respect of 'end to end' process performance from initial scene examination to investigative disposal **[Performance Improvement]**.

## 1.6 Background

- 1.6.1 The strategic impetus for such a review is encapsulated within the Home Office Strategic Plan 2004-2008 which states that *"through the Forensic Integration Strategy we will ensure that the police optimise their use of forensic science, extending our global lead on the use of DNA to all forms of forensic intelligence. The strategy will bring about changes in operational management and workforce practice as well as exploiting IT and scientific developments, in order to raise the level of detections."*
- 1.6.2 Bedfordshire Police Authority recognises the importance of exploiting every opportunity to provide the best possible service to victims of crime through its use of scientific services to prevent and detect crime and, in doing so, support the force's main aims and objectives.
- 1.6.3 Performance within the SSD compared against our most similar forces suggests that the force is performing well in key business areas (See Section 4.2). However, the review has identified that there are opportunities to capitalise further in terms of forensic generated outcomes.
- 1.6.4 Bedfordshire Scientific Services has been subject of close scrutiny recently with much change brought about by the influence and recommendations of both HMICs' 'Under the Microscope' and, at the request of the force, a bespoke review conducted by the Police Standards Unit (Summary of PSU recommendations are presented at Appendix D).
- 1.6.5 Specifically, 'Under the Microscope' makes recommendations that address forensic strategy, policy for attendance, synergy between scientific services staff and investigators and timeliness of forensic processes.
- 1.6.6 The need to focus the review on volume crime and, in particular, Burglary Dwelling, Theft of and from Motor Vehicles is due to the fact that these crimes make up one third of all recorded crime and are subject of government targets for crime reduction. They are also regularly the focus of CDRPs.

## 1.7 Methodology

- 1.7.1 Using the established 4C Review methodology, this review has looked specifically at:
- The 'End to End' Tracking Process
  - Best Practice Initiatives
  - Business Operating Models
  - Accommodation and Budgets
  - Information Technology
- 1.7.2 The intention from the outset of this review process was to produce these workstream reports individually to allow for a quick 'turnaround' product that would generate readily actionable recommendations for early implementation. This would eliminate the need to wait for an all-encompassing final report before action is taken, thus making the process more dynamic. It has, however, due to the overlapping nature of the subject matter, been

necessary to combine certain workstreams to present a review that focuses more collectively on process improvement and organisational structure.

## 1.8 4C Plan

- 1.8.1 This review has adhered to the Best Value 4C principles of **challenging** existing practices and procedures, **consultation** with both internal and external stakeholders, **comparison** with other forces and relevant external bodies and giving full consideration to the role of **competition** as a means of securing economic, efficient and effective services.
- 1.8.2 Using these principles the review has **challenged** the delivery of current scientific service provision and the perceived benefits to key stakeholders and users
- 1.8.3 In determining what level of service is currently provided, the review has **consulted** with key stakeholders and users, practitioners within Scientific Services, operational staff, victims of crime and suppliers from external agencies. The consultation process has included contact via one-to-one interviews, questionnaires and focus groups. A matrix identifying the level of external and internal consultation is produced as Appendix A. Consultation has also taken place with all those forces that have conducted recent reviews of their Scientific Services Departments. A summary of their recommendations is produced as Appendix B.
- 1.8.4 Benchmarking of processes, functions and performance with our most similar forces, best practice forces and external agencies have allowed for a **comparative** element in this review.
- 1.8.5 To determine whether the Force **competes** in the area of scientific service provision, the review has examined opportunities for outsourcing of such services and potential for collaborative arrangements.

## 2 End to End Tracking Process Workstream

### 2.1 Introduction

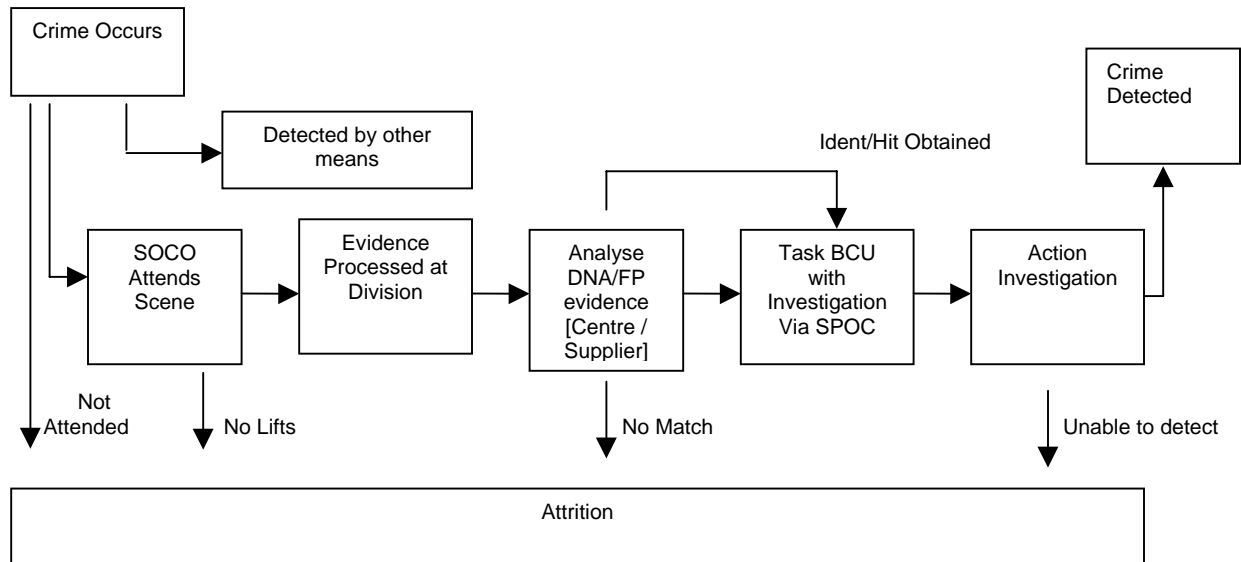
- 2.1.1 HMIC in 'Under the Microscope' 2002 made a recommendation that stated:  
*'Chief Officers should immediately ensure that they have in place processes for dealing with:*
- *Timely submission of DNA samples and Fingerprints*
  - *Investigation of DNA and Fingerprint Identifications*
  - *Supervision of such investigations to ensure that they are completed expeditiously'*
- It goes on to say:  
*'The timely execution of identification packages should be an essential element of every forces strategy to address volume crime'.*

### 2.2 Scope and Purpose

- 2.2.1 This workstream focused on the SSD's delivery of services to internal users who are tasked with the investigation of volume crime. It specifically looked at the individual processes involved from initial scene attendance to the establishment of a DNA or Fingerprint identification.

- 2.2.2 All three individual scientific disciplines were examined to identify where, if any, there were bottlenecks in their individual processes and if so, how could these delays be alleviated to deliver a quicker turnaround of forensic output.
- 2.2.3 Although outside the control of SSD but fundamental to the overall achievement of positive outcomes from forensic led investigations, it was necessary to examine divisional response to such investigations as there appears little benefit in seeking to improve 'front end' performance if the subsequent investigative process invites delay. The process map below highlights each stage of the scientific process and where the potential bottlenecks can occur.

**Chart 1: High Level Scientific Service Process Map**



## 2.3 Findings

- 2.3.1 Certain difficulty was encountered locating data that would allow for meaningful comparison of turnaround times (TRTs) with that of other forces.
- 2.3.2 Forces are not currently measured on their forensic TRTs and so there is no national requirement to record such data. Equally, the current IT system employed to record and track forensic activity in Bedfordshire (SOCRATES) is not integrated with the Crime Recording System and therefore does not allow for the simple extraction of data that would inform on the timeliness of forensic processes. However, this link has been developed and will be implemented in July 2005.
- 2.3.3 Where the force has specifically recorded such information in the past has been in relation to specific forensic-led initiatives such as Operation Blythe, a forcewide Burglary Initiative that commenced in July 2004. TRTs for exhibit handling were recorded and calculated based on the period between 'date of offence' and 'date identification sent to division for investigation'.
- 2.3.4 During Operation Blythe, evidence from scene was submitted within 24 hours for quality assurance and onward submission to Fingerprint Bureau or Laboratory. In relation to fingerprints, TRTs proved to be **7 days** consistently throughout the initiative and this takes into account the various aspects and levels of treatment required in processing fingerprints.

- 2.3.5 DNA submissions involved processing by an external service provider, the Laboratory of Government Chemists (LGC). In these cases the vast majority of exhibits were collected, analysed and resulted within **2-3 days**.
- 2.3.6 The average TRT from offence date to output date for DNA was **12 days**.
- 2.3.7 Unfortunately, TRTs were not set or monitored for Blythe's 'back end' investigative processes and so it is difficult to give an accurate evaluation of the initiative's success in terms of overall timeliness.
- 2.3.8 Fortunately the review has been assisted in this particular area by SWIM which was able to look in more depth at lead times for the individual scientific processes, making comparison with eight other forces. SWIM obtained data from the Crime Management System, SOCRATES and the Hits database using date parameters between October 2003 and September 2004. It arrived at the following headline conclusions:

**Table 1: SWIM Process Times for Bedfordshire**

a)Overall average process time for FP Idents	<b>79 days</b>
b)Overall average preparation time on divisions before submission	<b>7.4 days</b>
c)Average lead time from receipt of FP evidence to identification	<b>40.3 days</b>
d)Average lead time from receipt of DNA evidence to hit	<b>18.8 days</b>
e)Average time to task an Ident to division via SPOC	<b>7.5 days</b>
f)Average TRT of Ident on Divisions (Detection Time)	<b>37.5 days</b>

- 2.3.9 Analysis of the above findings reveals that the **79 day** overall figure (a) predominantly comprises of 28 days Ident time and 38 days detection time. In relation to the latter, there appears little scope to challenge as it is acknowledged that this is an area for improvement.
- 2.3.10 Preparation time (b) appears surprisingly long at **7.4 days** and varies both with type of submission (DNA/FP) and by division. This delay cannot readily be explained neither does it appear supported by SOC staff.
- 2.3.11 The average lead time for FP evidence (receipt to identification) of **40.3 days** was cause for concern and has been queried in light of the bureau's consistent performance in meeting its SLAs for core crime. As a result, a local piece of research was commissioned in response to the SWIM Findings. It firstly considered a total of 133 idents obtained by the bureau between April 1<sup>st</sup> and May 29<sup>th</sup> 2005. It revealed that **80%** of these idents were achieved within **4 days** of arrival in the bureau giving a TRT that appears to be more representative of recent performance within the bureau. Counting all idents within that period the average TRT was **10 days** which tends to cast some doubt over the accuracy of SWIM findings in this area.
- 2.3.12 In addition to this local research, Fingerprint Bureau found that SWIM findings may have been distorted by data used that related to the processing of new Tenprint submissions against dated scene marks that had remained for some time on the NAFIS Database unidentified.
- 2.3.13 The second piece of work commissioned focused on the submission of DNA evidence between 1<sup>st</sup> April and 25<sup>th</sup> May 2005. With a sample size of 37, it revealed that it took an average of **5.1 days** for the transmission of evidence from scene to Submissions Manager

with a range differential between 1 and 21 days. As this research is current it would generally appear to support SWIMs findings of 7.4 days and indicate that improvement is clearly required in this part of the process.

- 2.3.14 Further examination in the area of DNA Submission did reveal that due to a policy decision, certain DNA samples were being withheld when the case was additionally supported by fingerprint evidence. If fingerprint evidence was subsequently found, then the DNA evidence would not be required. The effect of this was to show misleading submission delays on the SOCRATES System. This matter can be simply remedied by revisiting and amending the policy decision.
- 2.3.15 According to SWIM, DNA lead times as in (d) that measure from 'lab submission' to 'return of hit' within force shows an **18.8 day** TRT. Similar local research between 1<sup>st</sup> April and 25<sup>th</sup> May revealed that the average TRT was a more favourable **13 days**.
- 2.3.16 In relation to (e), the 'time to task a forensic ident on divisions', SWIM identifies an average time of **7.5 days**. This figure appears excessively long considering that the initial ident is electronically sent to the divisional SPOC, acknowledged on the HITS Database and acted upon within 24 hours.
- 2.3.17 According to the Forensic Identification Co-ordinators (FIC) delays, however, can be encountered due to the particular complexities of a case and the level of research required prior to allocation and conflicting priorities. It is also worthy of note that the time parameters during which SWIM extracted data coincided with the introduction of the FIC role and so there may be an element of delay caused by training and role familiarisation.
- 2.3.18 Anecdotally, the FICs cite **48 hours** as an average TRT for a straightforward case with some divisions operating to a SLA of **4 days**.
- 2.3.19 The SWIM findings do however provide a powerful case for process improvement but with a caveat that some results were arrived at from fairly small sample sizes, due in part to difficulties with data compatibility and availability. More recent local research into certain individual processes may, therefore, complement SWIM findings and portray a more representative picture of current performance.
- 2.3.20 Comparison with our MSF in relation to TRTs reveals that most forces do not set overall TRTs for the entire end-to-end process but target and manage performance in certain areas. These are highlighted in the table below and relate to Core Crime response.

**Table 2: TRTs in MSF of Forces**

Leicestershire	
Scene Attendance	Within 8 hours of report
Evidence from Scene to FP Bureau	1 Working Day
100% Burglary marks processed by F/P Bureau	Within 2 Working Days
Notification of Ident from Bureau to BCU	1 Working Day
Priority Crime Hits Packages	Actioned by divisions within 7 days of receipt

Hampshire	
Evidence from Scene to Lab	5 Working Days
Chemical Treatment for scene marks	25 days from receipt of submission
Speculative and Suspect FP Searches for Volume Crime	Result within 5 days
All Idents and Hits Packages	Disposal within 14 days of receipt
Kent	
Internal SLAs for SSD currently being prepared	
All idents and Hits packages	Disposal within 14 days of receipt
Avon and Somerset	
Scene to HQ for FP Bureau or DNA Submission	Within 24 hours
Ident/Hit received on BCU from FP Bureau or Lab to Offender Disposal	90 days
Northants	
All Idents and Hit Packages upon receipt on Divisions	Target of 75% to be completed to disposal outcome within 14 days

2.3.21 Of all other forces consulted with during this review a TRT range for the investigative end process has been identified that varies from between 48 hours to 90 days.

## 2.4 Process Performance Factors

2.4.1 SSD have set SOCOs, through their SLAs and Attendance Policy, fairly strict targets in terms of scene examination with an expectation that all Burglary Dwellings will be attended within **24 hours**. Data for the period October 2004 to March 2005 shows that SOCO attended **98%** of all Burglary Dwellings within 24 hours. SWIM findings reveal that although only 67% of total crimes are attended within 24 hours, they concur that Bedfordshire are meeting their target across the force for Burglary Dwellings.

2.4.2 Anecdotally, there has been comment to the contrary, made by senior users from divisions, that certain burglaries are waiting up to 36 hours before attendance, however, this appears to be the exception and due to factors affecting performance such as the prioritising of more serious incidents and resource shortfalls.

2.4.3 The Imagery Department, responsible for managing the chemical aspects of fingerprint development, can generally turnaround priority crime submissions within **5 working days**. They prioritise their workloads accordingly but staffing issues (1 full time Laboratory Staff), a lack of resilience and the additional call upon their services for major incidents can impact upon performance.

2.4.4 Previously certain delays occurred between the Chemical Lab and Fingerprint Bureau where poor communication between the two disciplines contributed to delays in initial exhibit transmission between departments. This has been alleviated recently by improved communication and more efficient use of the forensic tracking system.

2.4.5 Bedfordshire Police have just signed up to a local Tripartite Protocol with CPS and FSS that ensures a structured approach to setting and agreeing timeliness requirements for the respective forensic processes. This protocol provides timescales for submission and

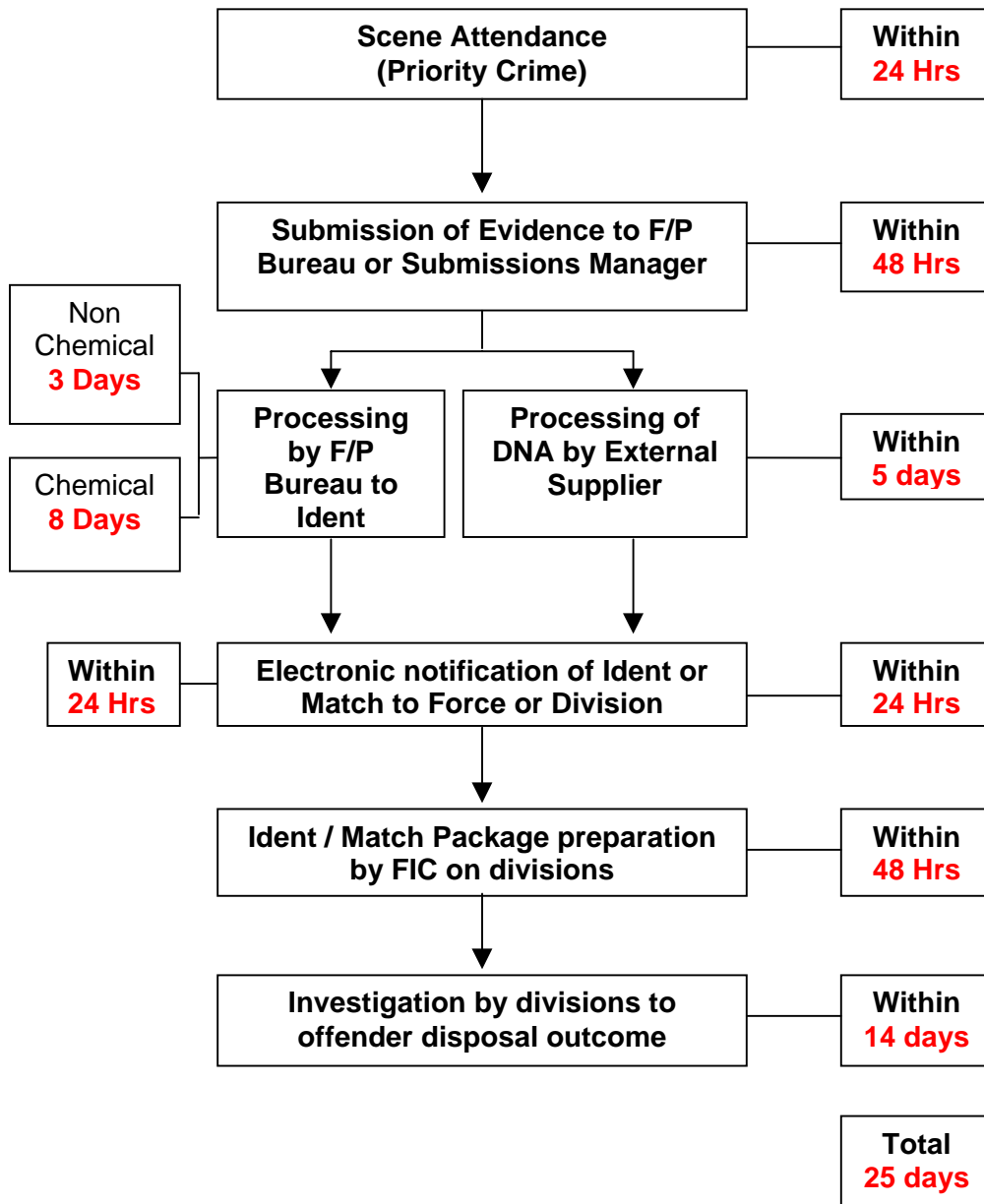
delivery of results for each forensic examination. For example a simple DNA evidential sample for volume crime should be processed within **16 days** from transmission of evidence to the Submissions Manager to delivery of results back into force.

- 2.4.6 TRTs are further aided and reinforced by agreed SLAs with the FSS that ensures **5 day** TRTs for Volume Crime scene stain analysis.
- 2.4.7 Internally, the Fingerprint Bureau operate to an SLA that provides a turnaround of **3 working days** for comparison of FPs against Core Crime suspects/offenders/point of entry marks. This target is achieved in 90% of cases.

## 2.5 Conclusions

- 2.5.1 If performance is to be improved in terms of shortening the turnaround times for all the scientific and investigative processes involved in tackling volume crime there is a clear requirement for time related targets to be set. These targets can be derived taking cognisance of the complexities of the individual processes and functions but must ultimately contribute to overall performance improvement. The Force is also aided by the SWIM findings, with which the review concurs that there are two main stages in the end-to-end process where the force needs to focus its efforts.
- 2.5.2 Firstly, the overall average evidence submission time on divisions of 7.4 days is both unexplainable and unacceptable.
- 2.5.3 **SWIM Recommendation:** Reduce evidence submission timescales and variability. Set a target of **2 days**.
- 2.5.4 Secondly, according to SWIM, the average TRT of idents on divisions is **37.5 days**.
- 2.5.5 Despite the efforts of crime managers on divisions it is evident that there is a lack of management or control of idents highlighted in the fact that there are differing TRT targets on divisions and differing investigative approaches.
- 2.5.6 **SWIM Recommendation:** Establish a plan to hit a target detection lead time of **11 days** or better.
- 2.5.7 In addition SWIM highlighted the need to reduce the tasking time for Ident packages on divisions having found an average TRT of **7.5 days**.
- 2.5.8 **SWIM Recommendation:** Reduce Tasking to an average of **2 days**.
- 2.5.9 Graphically, proposed targets for the end to end process times relating to priority crime are represented in Chart 2.

**Chart 2: Proposed Target Times for the End-to-End Process**



2.5.10 The above flow chart, and targets set within, takes account of the relevant SWIM findings and recommendations, the Local Forensic Tripartite Protocol, the findings of the BVR consultation process and cognisance of the force’s current performance and capability to achieve such targeted timescales within existing SSD structure and non-dedicated investigative response.

2.5.11 In some of the process areas these targets require considerable change in working practices to achieve the desired outcomes. Others such as notification of Idents to divisions and preparation of packages require a lot less adjustment. The setting of targets will provide divisions and SSD with a means to assess performance and test appropriate adjustments.

2.5.12 It also draws attention to the different integrated processes such as chemical treatment of fingerprint submissions that can extend the identification process by an average of 5 days. In these cases allowance should be made by adjusting TRTs accordingly.

2.5.13 In relation to proposed performance improvement, the new targets represent a saving of 56 days on the end-to-end process in relation to Fingerprints and 54 days for DNA.

**BVR Recommendation 1:**

That an overall turnaround time of **25 days** for the 'end to end' investigative process be implemented for all forensic led crimes designated as Priority Crime.

2.5.14 In relation to the 14 day investigative element of the proposed Target and following consultation and reference to other Best Value forces, it is felt that an 80% compliance target is achievable.

### 3 Best Practice Initiative Workstream

#### 3.1 Introduction

3.1.1 In conjunction with the previous workstream, the review has considered three initiatives run by other forces who have set out to maximise the full forensic potential of their scientific services and who are considered by the Home Office to have exhibited good practice in this area:

- Operation Cesare (Lincolnshire)
- Operation Converter (West Yorkshire)
- Operation Safer Homes (West Midlands)

3.1.2 All three initiatives have targeted end-to-end processes, from scene attendance to processing of samples and post hit investigative activity. This workstream has examined and considered the effectiveness of all three initiatives and their impact on process and performance improvement.

#### 3.2 Operation Cesare

3.2.1 This was a project funded jointly by the PSU and Lincolnshire Police and worked in close collaboration with the FSS. The initial pilot project ran from January to March 2003 and was initiated following a number of cases where delay in bringing offenders to justice resulted in the avoidable commission of further offences. Lincolnshire's aims were to set up a fast track forensic process from scene attendance to arrest without compromising integrity.

3.2.2 Additionally their goals were to:

- Reduce volume crime series through early intervention;
- Improve detection rates;
- Provide a quality and immediate service to victims of crime.

3.2.3 To achieve these goals they focused on three process areas:

- Crime Scene attendance;
- Processing of crime scene samples;
- Post Hit investigative action.

### 3.3 Cesare - Methodology

- 3.3.1 Commitment at Chief Officer level meant that resources were made available to increase scene attendance. Operational Support Units were made available to each division to act as arrest teams. Divisional Managers were given ownership of the project to ensure localised and timely follow up of forensic identifications. The performance monitoring aspects were managed electronically utilising an interface between their Forensic Tracking System and existing Excel Software that housed Hits data.
- 3.3.2 In addition to this, a dedicated evidential sample delivery service was set up to collect samples from divisions on a daily basis and not the existing weekly collection. Supporting this was an agreement with FSS guaranteeing a three-day TRT for DNA submissions during the life of the project.
- 3.3.3 Investment was also made in purchasing a digital imaging system that reduced their previous TRT for developed fingerprint marks from 10 days to a matter of seconds.
- 3.3.4 The Fingerprint Bureau were given additional staff and overtime to initially clear a backlog before concentrating on the initiative.

### 3.4 Cesare - Findings and Outcomes

- 3.4.1 Initial evaluation of the project highlighted one administrative issue surrounding communication between FSS and Force that led to a delay in notification of hits. A second issue concerned incompatibility of systems that would not allow crime reference number to be linked to the fingerprint filing and recording system that facilitated the transmission of ident. Once these matters were overcome, however, Lincolnshire saw the following benefits:

**Table 3: Cesare Benefits**

• Improved DNA and Fingerprint process times
• Total Process time reduced by <b>2 months</b>
• Increased SOCO activity (Scene attendance for Burglary Dwelling up <b>14%</b> )
• Outstanding identifications fell by <b>79%</b> with detections rising
• Monthly Averages for Burglary Dwelling rates fell by <b>20%</b> between April 2002 and March 2003

- 3.4.2 Owing to the success of this initiative, Lincolnshire developed this approach further as Operation Cesare 2. With joint funding secured until April 2005, Cesare 2 consolidated all previous good practice whilst implementing a **72 hour** end-to-end TRT for fingerprint ident.
- 3.4.3 In order to achieve and support these challenging TRTs it was necessary for Lincolnshire to employ mobile data technology. This was achieved by procuring Laptop Computers and Scanners for all SOCOs. These were supported by GPRS technology that allowed the Wireless Transmission of Fingerprints direct from scene to the Fingerprint Bureau. This meant that the scanned images could be transmitted from scene within **30** seconds for examination and identification on the NAFIS database. An evaluation of this fast track process in September 2004 revealed that the average time from lift at crime scene to an identification was **1 hour 49 minutes**.

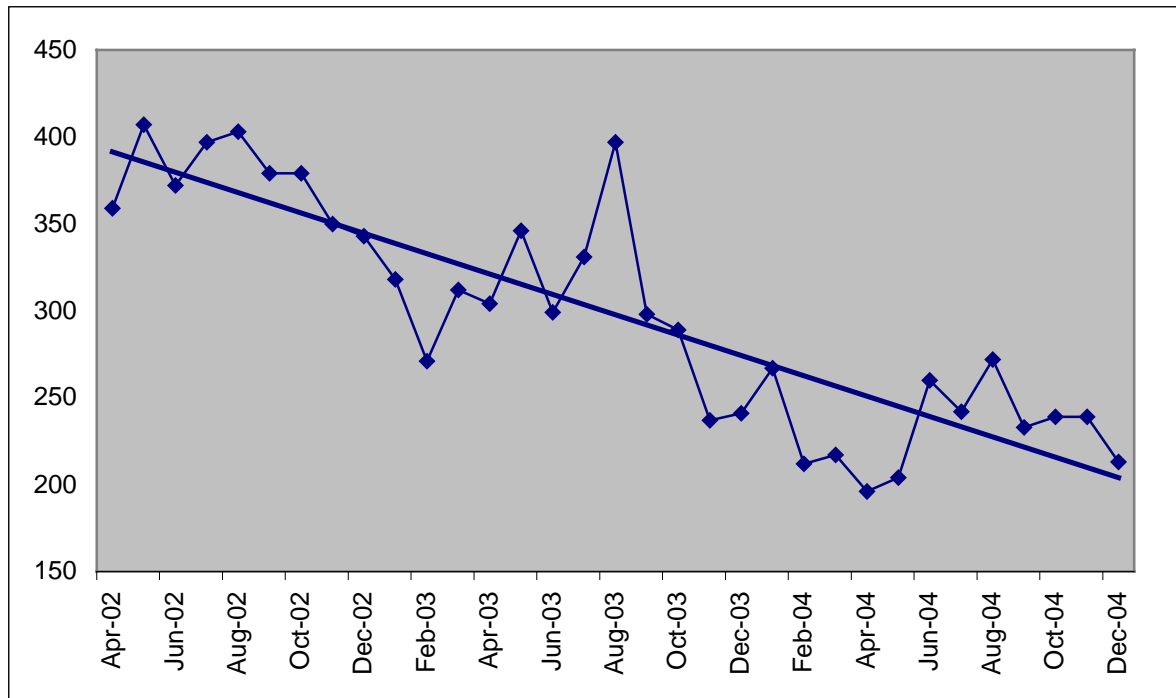
3.4.4 Anecdotally they support the fast track approach by citing the following live case:



**Friday 8<sup>th</sup> April**

- 08:33 Bourne Cricket Club report a burglary to Lincs Police
- 10:29 The last of 4 fingerprints found arrive in the bureau
- 13:19 Identification to Divisional DIU
- 15:34 Suspect Arrested, later search of his house reveals the stolen property and his trainers with glass embedded in their soles
- 21:15 Charged with the burglary

- 3.4.5 In pursuing the idea of 'real time' forensics Lincolnshire have encountered certain difficulties with this fast track process. These relate to the need to compress fingerprint images to send them electronically. These compressed images are acceptable for the purpose of searching NAFIS and for making an identification, however, the administrators of NAFIS will not presently allow for storage of compressed images on the national database. This means that although Lincolnshire can fasttrack the identification process they still have to load the original set of scene marks onto the system by conventional means. At the time of writing, this issue was being debated at HO level in an attempt to overcome this obstacle.
- 3.4.6 Irrespective of this, Lincolnshire view the use of mobile data technology as an essential and cost effective measure in tackling priority crimes. This technology also has the added benefit of allowing SOCOs to input forensic submission information directly from scene onto their forensic management system.
- 3.4.7 In terms of actual cost, Lincolnshire state that the total package of Laptop, Scanner, GPRS facility and SOCRATES Licence cost in the region of £1,500 for every SOCO.
- 3.4.8 Lincolnshire claim that the continued success of Operation Cesare has made a considerable contribution to a reduction of 50% of all the force's recorded Burglary Dwelling offences as shown below:

**Chart 3: Lincolnshire – Burglary Dwellings Recorded 2002-2004**

### 3.5 Operation Converter

3.5.1 This is a West Yorkshire Police Initiative that commenced in October 2003 having received financial support from the PSU. The aim of the operation was to maximise crime detection outcomes from science by using small selected teams of police officers to work full time and exclusively on the investigation of scientific suspect identifications. These teams were based within each division and operated to a corporate model. This model comprised of three main elements:

- The fast track processing of Fingerprint and DNA evidence from scene to investigative disposal;
- The timely apprehension of suspects following receipt of scientific evidence;
- The effective and professional interviewing of suspects.

3.5.2 To support this forcewide initiative it was necessary to deploy dedicated teams within each division, typically made up of 2 Sergeants and 10 Constables providing 7 day cover. They respond to direct tasking from the daily/weekly divisional operational meetings. Incorporated within this team are 4 selected experienced detectives who form the 'Converter' prisoner interview team. The principle of the Operation is that divisions support and drive the initiative which is managed by uniform and not CID.

3.5.3 The tasking team are solely responsible for the arrest of Converter targets and the searching of any related properties. Post arrest, this team actively enforces bail and court breaches emanating from Converter.

3.5.4 The team of 4 detectives are experienced in matters of disclosure and take 'ownership' of all prisoners prolific in core crime offences. This includes post charge 'intelligence' interviews and prison visits enabling the exploitation of secondary detection opportunities. This

investigative arm is aided from the centre by a forensic intelligence team who were responsible for putting together the Ident packages and conducting Crime Pattern Analysis.

- 3.5.5 Finally, the team received strong management support from both the centre and divisions that ensured that all Converter team members were 'red circled' and free from abstractions and the demands of work not associated with the operation.

### 3.6 Converter - Findings

- 3.6.1 Converter had a 'built in' overall TRT Service Level Agreement of **28 days**, however hits for Burglary Dwellings always received priority and it would be unusual if these cases were not actioned within **24 hours** of receipt of the ident.
- 3.6.2 Between October 2003 and April 2004 Operation Converters Cumulative Divisional Performance was **101%** conversion rate of Ident packages into primary detections. One division achieving **216%**. The force's corporate target for the first year of the initiative was 140%. In the first three months of the scheme (October 2003 – December 2003) being rolled out, the level of Burglary detections from forensics rose to **46.2%** compared to a figure of 33.5% for the same period in 2002.
- 3.6.3 In light of West Yorkshire's approach, other forces have recommended and implemented Converter style initiatives with varying degrees of success.
- 3.6.4 Lancashire implemented Converter approximately 18 months ago trialling in one division. They have now implemented the initiative in five of their six divisions with a view to going forcewide this year. Their model is similar to West Yorkshire in that they operate with totally dedicated teams, 'red circled' from abstraction and conflicting priorities.
- 3.6.5 In terms of outcome they cite improved response to forensic led crime, enhanced volume, improved crime customer satisfaction and improved performance.

### 3.7 Operation Safer Homes

- 3.7.1 The Safer Homes initiative run by West Midlands Police has now been operative for three years and was initially funded by the PSU. The initiative targets all the force's Burglary offences and extends to vehicles involved in those Burglary offences or linked to prolific offenders.
- 3.7.2 Safer Homes utilises a number of forensic services ranging from fast track DNA Intelligence samples, evidential conversions and footwear comparisons. The fingerprint Bureau also offers a similar fast track service for all initiative submissions. All processes are controlled by agreed TRTs and contracted SLA arrangements with external service providers. This initiative began in December 2001 and continues to date as Safer Homes 3.
- 3.7.3 Force data illustrating performance improvement in TRTs is shown below.

**Table 4: TRTS for Safer Homes Initiative (Pre and Post)**

Process	December 2001	December 2004	Differential
1. Initial Report to Scene Examination	1	1.7	+0.7
2. Scene examination to Lab Submission	9	3.2	-5.8
3. Lab examination to loading on NDNADB	11	2.89	-8.11
4. Total – Scene Examination to Lab Analysis	20	6.09	-13.91
5. Total- Initial Report to Lab Analysis	21	7.79	-13.21
6. Load to NDNADB to match report (Custodian Time)	6.1	0.54	-5.56
7. Match Report to FLINTS Package Distribution to BCUs	11	0.92	-10.08
8. Flints Report to Charge	48.9	22.62	-26.28
<b>Scene Examination to Charge (4+6+7+8)</b>	<b>86</b>	<b>30.17</b>	<b>-55.83</b>

- 3.7.4 Substantial performance improvement has been gained and sustained through the imposition of defined turnaround times for all forensic processes and the back-end investigative process.
- 3.7.5 Driving these improvements in terms of timeliness is a **5 day** TRT from offence report time to receiving the DNA Match Report. West Midlands have set a target of 80% for achieving this TRT. They are currently achieving 83% for YTD.
- 3.7.6 Additionally, upon receipt of the match by their Forensic Intelligence Unit, the Hits package is compiled and allocated to the respective BCUs within **24 hours** in accordance with targets. This target is currently being achieved in over 85% of cases.
- 3.7.7 Targets for investigative TRTs for priority crimes are set at **7 days** from receipt of FLINTS Package to final outcome. This is currently being achieved in 87% of all cases although the example above does show certain 'creep' caused by recent conflicting force priorities.

### 3.8 Best Practice Conclusions

- 3.8.1 The purpose and the aims of all three initiatives was to maximise the potential of scientific hits and convert into detections. This was achieved, through differing approaches, by a combination of dedicated resources, challenging SLAs with external service providers, specifically tailored systems and effective and supportive management.
- 3.8.2 Performance, monitoring and accountability are key to any such fast track process and to adopt a similar model within Bedfordshire would require commitment from senior management in terms of appropriate resources, suitable accommodation and an

understanding of the need to 'red circle' staff to alleviate their involvement in competing areas of investigation. All three forces reviewed have made a considerable commitment to resources, some with dedicated teams to tackle 'cradle to grave' processes, others concentrating on the scientific services aspects supported by divisional investigative support and mobile data technology.

- 3.8.3 Whether Bedfordshire should consider embarking upon a model similar to any one of those initiatives should be contemplated only if tangible business benefits can be achieved. In the first phase the challenging TRTs and targets documented in Section 2.5 should be established with divisions having the flexibility of approach to meet these. However, if the Force finds itself not meeting these targets then dedicated resources either at the centre or on divisions may need to be considered.
- 3.8.4 B Division exhibit good practice in the processing of forensic idents utilising a dedicated Burglary and Autocrime Unit that incorporates an Intelligence capability and also exploits the potential of SICAR footwear evidence. The unit has a mixture of detective/uniform experience and incorporates the forensic intelligence and ident allocation functions. Under the supervision of an experienced Detective Sergeant the team perhaps presents the best opportunity for Bedfordshire to mirror such an initiative as Operation Converter. B Divisions performance against the other divisions is shown below.

**Table 5: Divisional Performance – Forensic Outcomes**

Status of FP Idents + DNA Hits received Apr 2004 -Mar 2005	B Div	%	C Div	%	D Div	%
Pending	2	1%	3	1%	4	2%
Allocated	22	7%	30	8%	19	10%
PNC	4	1%	8	2%	13	7%
Arrested/Bail	8	3%	21	5%	10	5%
<b>Detected</b>	143	<b>48%</b>	168	<b>43%</b>	80	<b>39%</b>
Legit Access	59	20%	78	20%	27	14%
NFA	57	19%	65	16%	36	18%
Scene to scene	2	1%	5	1%	0	0%
Foreign	0	0%	17	4%	10	5%
<b>TOTAL</b>	<b>297</b>	<b>100%</b>	<b>395</b>	<b>100%</b>	<b>199</b>	<b>100%</b>

- 3.8.5 Further support for such a dedicated response comes from two sources. Firstly, from within recommendations of the 2004 PSU report:
- 3.8.6 *"Consideration should be given to the formation of investigators based on divisions. These investigators should have the primary function of investigating DNA Hits and Fingerprint Identifications. The officers in these units should be closely linked with the SSD and should be provided with training specific to the role. Following implementation further analysis should be conducted with a view to identifying any benefits from developing them into a force-wide resource based centrally."*
- 3.8.7 Secondly, the SWIM Project makes a recommendation that the force consider the implementation of dedicated detection teams or 'Docket Squads' that focus on forensic idents. SWIM believes that this will give the force its best chance of sustaining enhanced performance brought about by the new TRT targets.

- 3.8.8 Local consultation with both operational staff and CJ agencies reinforces the notion that there is a paucity of knowledge and experience in handling forensically generated investigations. This is despite of recent wide circulation of the ACPO DNA Good Practice Manual that gives useful advice and guidance on Investigative Interview Techniques and Disclosure.
- 3.8.9 Finally, by comparing Bedfordshire with the three forces reviewed we can determine how sustained their performance has been since the inception of their initiatives and identify if there is a viable business case for adopting a similar approach within Bedfordshire.
- 3.8.10 The tables below show the Home Office's most recently published General Data Returns (GDR) for the first 6 months of 2004-2005:

**Table 6: Crime Scene Examination (GDR)**

	<b>Beds</b>	<b>Lincs</b>	<b>West Mids</b>	<b>West Yorks</b>
Burglary Dwelling Scenes examined	<b>97%</b>	<b>92%</b>	<b>91%</b>	<b>81%</b>
Theft of Motor Vehicle Examined	<b>52%</b>	<b>45%</b>	<b>54%</b>	<b>39%</b>

**Table 7: Evidence Recovery**

	<b>Beds</b>	<b>Lincs</b>	<b>West Mids</b>	<b>West Yorks</b>
<b>FP Recovery</b> From scenes examined				
Burglary Dwelling	<b>35%</b>	<b>31%</b>	<b>22%</b>	<b>33%</b>
Theft of Motor Vehicle	<b>58%</b>	<b>54%</b>	<b>45%</b>	<b>67%</b>
<b>DNA Recovery</b> From scenes examined				
Burglary Dwelling	<b>11%</b>	<b>6%</b>	<b>10%</b>	<b>5%</b>
Theft of Motor Vehicle	<b>25%</b>	<b>17%</b>	<b>22%</b>	<b>22%</b>

**Table 8: Identifications**

	<b>Beds</b>	<b>Lincs</b>	<b>West Mids</b>	<b>West Yorks</b>
<b>F/P Idents</b> (From Recovery)				
Burglary Dwelling	<b>15%</b>	<b>19%</b>	<b>20%</b>	<b>26%</b>
Theft of Motor Vehicle	<b>24%</b>	<b>23%</b>	<b>22%</b>	<b>30%</b>
<b>DNA Matches</b> (From Recovery)				
Burglary Dwelling	<b>12%</b>	<b>28%</b>	<b>41%</b>	<b>42%</b>
Theft of Motor Vehicle	<b>41%</b>	<b>34%</b>	<b>31%</b>	<b>24%</b>

**Table 9: Conversion of Identifications into Detections**

	<b>Beds</b>	<b>Lincs</b>	<b>West Mids</b>	<b>West Yorks</b>
<b>F/P Idents to Detections</b>				
Primary Detections per Ident	<b>34%</b>	<b>56%</b>	<b>30%</b>	<b>35%</b>
Total Detections per Ident	<b>121%</b>	<b>115%</b>	<b>61%</b>	<b>91%</b>
<b>DNA Matches to Detections</b>				
Primary Detections per Match	<b>48%</b>	<b>71%</b>	<b>32%</b>	<b>44%</b>
Total detections per Match	<b>91%</b>	<b>120%</b>	<b>71%</b>	<b>107%</b>

- 3.8.11 From the above comparative data it can be seen that Bedfordshire currently perform well in almost all scientific led process areas under scrutiny of the Home Office.
- 3.8.12 Both scene attendance and evidence recovery shows Bedfordshire in a favourable light, particularly in relation to Burglary Dwelling offences. Operation Blythe may be a contributory factor in this area of performance.
- 3.8.13 Most disappointing is the number of Idents/Matches obtained from evidence recovered with the exception of Theft from Motor Vehicle offences.
- 3.8.14 More encouraging, however, is the conversion rate where Bedfordshire outperform all three forces in terms of total detections per Fingerprint Ident.
- 3.8.15 Individually the other forces performed well in specific areas such as West Yorkshire who achieved more identifications than the other forces. Significantly, however, they did not convert these Idents into detections albeit that they were the only force with dedicated investigative resources.
- 3.8.16 Conversely, Lincolnshire had average performance in relation to achieving identifications but were best performers in converting idents to detections.
- 3.8.17 By way of further comparison with these forces, Bedfordshire performs well when considering Burglary Dwelling Detection Rates for the period 01/05/2004 – 30/04/2005. Crimes Recorded relate to the period 01/02/05 and 30/04/05 (Table 10).

**Table 10: Crimes Recorded/Detected for Burglary Dwelling**

	Bedfordshire	Lincolnshire	West Midlands	West Yorkshire
Crimes Detected	15.94%	12.89%	11.98%	18.02%
Crimes Recorded per 1000 Households	3.962	1.949	4.660	4.483

### 3.8.18 Operation Burette and Operation Aztec

3.8.19 These are two local initiatives being run in C and D Divisions respectively which were commenced at the start of 2005 in response to the falling levels of vehicle crime scene examinations and loss of detection potential. Each division was resourced by one dedicated SOCO who was tasked through the FRMU to attend as many 'Theft of Motor Vehicles' and 'Theft From Motor Vehicles' that had forensic potential.

3.8.20 Previous to these initiatives, both divisions were not meeting Standard of Service targets which were set at 50% examination rate for TOMV and 30% examination rate for TFMV.

3.8.21 Recent performance figures (December 2004 – May 2005) for both categories of crime show improvement in both divisions with the force overall achieving a 46% examination rate for TOMV and 21% examination rate for TFMV. Albeit that these performance levels still fall below Standard of Service Targets, vast improvement has been made by use of dedicated resources.

3.8.22 In conclusion, it is felt that to trial a Converter style initiative in one division for a defined period is a viable option and would give the force an opportunity to evaluate performance for dedicated forensic led investigations following imposition of new targets for end-to-end TRTs. Any such trial would, however, be totally reliant on high level support and commitment in terms of resources. It would also need to be completed by the end of 2005 to allow for any budgetary considerations that would emanate from force-wide implementation.

3.8.23 Conversely, if standardised TRTs are to be adopted on divisions, BCU Commanders should be allowed to develop their own strategies for dealing with forensic led investigations. If this fails to achieve the desired performance improvement then a force-wide dedicated resource could then be considered.

3.8.24 Views at senior stakeholder level appears to support the latter option of local control and management of investigations.

#### **BVR Recommendation 2:**

Divisions to develop and implement strategy for investigating forensic generated identifications in accordance with agreed force-wide turnaround time targets.

## 4 Information Technology Workstream

### 4.1 Introduction

- 4.1.1 One of the main drivers for improvement in the area of IT was the findings of HMIC's 'Under the Microscope' that recognised that *'many forces still have difficulty in managing the transformation of forensic intelligence into detections'*.
- 4.1.2 The report added *'The greatest disappointment is the submission of performance data by all forces in the annual return to ACPO. Although some improvement has occurred since the publication of 'Under the Microscope', some forces were unable to provide data, and those that did, the quality was such as to make interpretation unreliable'*.
- 4.1.3 This was a situation that was recognised even earlier in the ACPO/FSS report 'Using Forensic Science Effectively' 1996 that recommended that forces adopt *'better performance indicators that encouraged measurement and supported successful outcomes, not just the level of activity'*.
- 4.1.4 Prior to HMIC 'Under the Microscope' there was little evidence of forces collecting such key performance data and where performance management was evident HMIC found that such forces were not collecting standardised information thus rendering benchmarking impossible. The report highlighted two specific examples of the inadequacies of force data collection stating that most forces were unaware of how many detections originated from forensic idents and most had difficulty reconciling legitimate access outcomes to identifications.
- 4.1.5 The PSU Review of Bedfordshire SSD in 2004 also recognised a gap in forensic performance management and recommended the establishment of a Performance Manager's post to act as a single point of contact responsible for co-ordinating and presenting management information and performance data. All of the above requirements and recommendations are dependent on the extraction of quality data from IT systems that house and incorporate forensic tracking and outcome information and that satisfies the needs of the Home Office in terms of the quarterly General Data Returns(GDR).

### 4.2 Current Position

- 4.2.1 Bedfordshire's current position is that it operates with a forensic tracking and management system called SOCRATES. This system incorporates a suite of other functions that record exhibit movement and associated forensic processes. It allows all three disciplines within SSD to log and track all their respective forensic exhibit submissions.
- 4.2.2 Certain performance data can be extracted from SOCRATES but this relates to forensic output tracking processes from scene examination to forensic identification. SOCRATES does not currently interface with any other IT System used by the force. However an interface to the new crime recording system is about to be implemented in July 2005. This will allow all crimes recorded to be married up with any associated forensic activity.
- 4.2.3 Performance and tracking data for post identification processes are recorded on a home grown 'hits' database that does not interface with SOCRATES. This system is currently

administered on divisions by the Forensic Identification Co-ordinators with input of ident notification from the Submissions Manager and Fingerprint Bureau.

- 4.2.4 The Performance Manager for SSD has to currently 'mine' these separate systems to extract performance outcome data that satisfies Home Office GDR requirements. As the Performance Manager spends in excess of one week retrieving this data, it does not reflect effective and efficient use of resources.
- 4.2.5 The Home Office require police forces to produce quarterly data in the following areas of forensic business:
- Crime Scene Examination (% of Burglary dwelling & Theft of Motor Vehicles examined)
  - Evidence Recovery (Fingerprint & DNA recovery from B/D & TOMV scenes)
  - Identifications (% of Identifications/Matches achieved from BD and TOMV recovery)
  - Conversion of Idents into Detections
- 4.2.6 In addition to the above GDR, the force provides the HO with forensic data for all Crime Categories and Identifications in progress.
- 4.2.7 The provision of this information is not optional and forms the basis for national benchmarking. Bedfordshire comply with the above requirements and gather additional internal performance data in relation to individual staff outputs.

### **4.3 Comparison and Consultation with other forces**

- 4.3.1 Of the twelve other Best Value Reviews examined, the vast majority highlighted issues within their forces in relation to performance management and the need for IT solutions.
- 4.3.2 Particular issues were identified with North Yorkshire still employing manual methods of data collection; South Wales requiring an IT Solution for the management of identifications and subsequent communications with BCUs; and Derbyshire, Merseyside and West Midlands requiring an IT System that fully integrates and supports SSD business.
- 4.3.3 Approximately 21 Home Office forces now use the SOCRATES System tailoring the system to meet their individual needs.
- 4.3.4 Other known systems being employed include Trak X, SCIman, FLINTS and LOCARD. These are all systems that employ a forensic tracking element, some with additional functionality to record investigative activity, others providing a data warehousing facility that links forensic intelligence to the other core systems. In addition, there are certain forces that have developed bespoke systems that meet their own specific requirements such as the FAS (Forensic Allocation System) in Essex.
- 4.3.5 Trak X is a system that was previously used by Bedfordshire pre- SOCRATES and is now viewed by the force as not fit for purpose.
- 4.3.6 SCIman is a system developed by Lancashire in 2002 that tracks and manages their identifications providing a full audit for performance management purposes. This system was highlighted by the HMIC as good practice in 2002 and recent consultation with Lancashire reveals that subsequent developments have led to the integration of SCIman with their crime recording system.

- 4.3.7 FLINTS (Force Linked Intelligence Systems) was originally developed by West Midlands Police in 1999 in conjunction with the FSS. The system accesses a data warehouse of all the key policing systems including crime, custody, intelligence, command and control, forensic and fingerprint data and so can be successfully utilised across different policing functions. This system does not, however, incorporate a performance management function and has led to West Midlands exploring other options.
- 4.3.8 Nationally, however, it would appear that the two most employed systems are SOCRATES and LOCARD. Understandably, these appear to be the systems that offer greatest functionality, flexibility, search capability and web based access. Of our Most Similar Forces, three use the SOCRATES System, one uses LOCARD and one TRAK X.
- 4.3.9 Hertfordshire have recently launched a home grown IT System following recommendations from their 2003 Best Value Review. SETS (Scientific Evidence Tracking System) is an evidential tracking system that incorporates elements of performance management, however, it would appear that direct input of investigative outcomes is not accommodated, thus making the system reliant on input from sources outside the control of the performance manager.
- 4.3.10 This appears to typify the gap that exists currently with most of the systems being employed by forces, being unable to provide a comprehensive package that offers a full audit trail of process activity and performance data from 'cradle to grave'.

#### **4.4 Forensic Outcome Tracking System (FOTS)**

- 4.4.1 Currently being trialled in Warwickshire, Gwent and Avon and Somerset forces, FOTS is an additional application to the SOCRATES Suite that enables the creation and subsequent management of forensic outcome packages and relevant automatic notifications that can be updated and finalised via the force's intranet.
- 4.4.2 Consultation with these forces reveals that although trials only began in May 2005, early indications are that the FOTS application will allow:
- Creation of work packages in SOCRATES from the Ident Source;
  - Allocation and update of packages to the allocating officer;
  - Allocation from the Allocating Officer to an officer on division;
  - Progress Tracking of the package once allocated;
  - Outstanding dates to be set at various stages of packages lifecycle to ensure compliance with TRTs;
  - Search and Report facilities to enable production of statistics in accordance with HO GDR requirement.

#### **4.5 Findings and Overall Conclusions**

- 4.5.1 Improvement in the way the force manages forensic led performance is being driven by the centre with the requirement that all forces will produce quarterly data covering the previously mentioned areas.
- 4.5.2 It is reasonable to suggest that Bedfordshire are proficient in this area already producing the required data to comply with the Home Office and generating additional suites of reports for internal management purposes.

- 4.5.3 This has been achieved, largely, by the appointment of a Performance Manager who coordinates this data collection and is the single point of contact (SPOC) for the force. This post was generated in response to both HMIC and PSU recommendations and was funded by the DNA Expansion Fund.
- 4.5.4 The issue in terms of efficiency appears to be in the method and complexity of extracting the required data from sources that are currently not integrated. SWIM found that “*Performance is hampered by poor data quality and data gaps*”. It cites SOCRATES failure to interface with the Crime System and the HITS Database as being the cause for gaps in the current performance measurement system.
- 4.5.5 SWIM recommends the force implements more robust systems for end-to-end process performance management/measurement by:
- Improving understanding of capabilities, needs and benefits of current systems;
  - Implement appropriate information modules.
- 4.5.6 To achieve this SWIM supports the findings of the review in that the force should consider the purchase of additional modules to the SOCRATES System that allows for the ‘closed loop’ measurement of the processes.
- 4.5.7 FOTS appears to be the only product available at present that offers total end-to-end tracking and performance management functionality that will alleviate the current delays encountered with data mining.
- 4.5.8 Should FOTS fully meet the force’s requirement, consideration should be given to funding the purchase of the system through the DNA Expansion Fund which allows for the procurement of IT for performance management purposes. The estimated capital cost for FOTS is £13,000 including training.

**BVR Recommendation 3:**

To conduct a full evaluation of the FOTS three force pilot, resulting in a Business Case to purchase the system should it fully satisfy the requirements of Bedfordshire Police.

## 4.6 Mobile Data

- 4.6.1 In conjunction with this workstream the review has also considered other advancements in scientific service delivery.
- 4.6.2 One advancement was mentioned previously (See Section 3.4.3) in relation to Operation Cesare where Lincolnshire Police issue all SOCOs with a Laptop and Scanner for use to scan fingerprint images from scene, within seconds, direct to the Fingerprint Bureau utilising GPRS Technology.
- 4.6.3 Bedfordshire currently lift fingerprints from scenes by conventional methods but do have the facility to scan the image from divisions.
- 4.6.4 The laptop facility also allows SOCOs to input their evidential seizures at scene directly onto their forensic tracking system thus saving time and keeping resources available for tasking on divisions.

- 4.6.5 Similarly. Dorset Police are trialling a 'smart pen' that has been issued to SOCOs to enable them to complete the recording of their evidential submissions at scene. The pen works by reading, capturing and interpreting the inputters written comments and either transferring them immediately by way of GPRS to the force's forensic management system or allowing the pen to be docked and downloaded once back on station.
- 4.6.6 Approximate basic cost for such a pen is £140.00 per unit with the main business benefit being remote access of corporate systems whilst enabling more time to be spent at scene and less time spent travelling to and from SOCO offices.
- 4.6.7 Both forces boast cost benefits in terms of time saved with burdensome administrative tasks. The capital cost for a laptop and scanner is estimated to be £1,500.

**BVR Management Action 1:**

Force to conduct evaluation of 'Smart Pen' trial in Dorset with a view to purchase if trial successful and meets Best Value requirements.

**BVR Recommendation 4:**

The Force's Mobile Data project should include a pilot based on the Lincolnshire Fast Track Forensic Model to utilise mobile data technology with laptops/scanners for Bedfordshire SOCOs.

## 5 Business Operating Model Workstream - Background

### 5.1 Introduction

- 5.1.1 The ACPO/FSS report 'Using Forensic Science Effectively' states '*The successful use of forensic science in police work depends on the following principles:*
1. *Good communication between all those involved in the initial investigation, through scene examination, evidence collection, and case submission through to scientific analysis and interpretation*
  2. *Sound and effective management mechanisms based on maximising teamwork, ownership focus and direction and fitness for purpose*
  3. *An appropriate level of understanding of forensic science, the law and the investigative process for the role to be performed successfully.*
  4. *Partnership between police and forensic suppliers based on trust that both are working together in the shared aims of efficient investigation of crime leading to the identification and prosecution of the guilty and the rapid elimination of the innocent from investigation.'*
- 5.1.2 With a view to the force aspiring to the above principles, this review has sought to examine the effectiveness of the current Scientific Services operating model and has considered options for change that are likely to improve performance, efficiency and long term business benefits. In essence, does the current structure of the Department provide value for money whilst being fit for purpose. Alongside this, consideration has been given to opportunities that exist for the outsourcing of certain functions and processes. Equally the review has explored potential areas for greater collaboration of services.
- 5.1.3 The following workstream is presented in a way that baselines SSD in its current form and current levels of performance.

- 5.1.4 It was felt by the review team that the most effective way of considering SSDs effectiveness as a key service provider was to subject the department and its processes to a SWOT analysis.
- 5.1.5 It is envisaged that this process will identify all key areas for service improvement whilst adding to the overall picture of whether highlighted areas for improvement would be best achieved in the current business operating model or an alternative such as centralisation.

## 5.2 Organisational Structure

- 5.2.1 The Scientific Services Department operates within the force's Specialist Crime Services and delivers services through the main three scientific disciplines of Scenes of Crime, Imagery and Fingerprint Bureau. The department is headed by a Civilian Scientific Services Manager who reports directly to the force's Head of Crime.
- 5.2.2 In financial terms the SSD had a total Budget of £2,767,399 for the 2004/05 fiscal year. This was supported by the DNA Expansion Fund of £669,345. The year's spend was divided as follows:

**Table 11: SSD Financial Budget 2004/05**

ITEM	ANNUAL COSTS
General Budget	£97,300
Forensic	£671,600
Pathology	£41,100
DNA	£184,214
Nafis Sundries	£5,000
Salary Costs	£1,641,085
Overtime	£36,210
Subsistence	£3,900
Mileage	£20,200
Vehicles and Communications	£66,790
TOTAL	£2,767,399

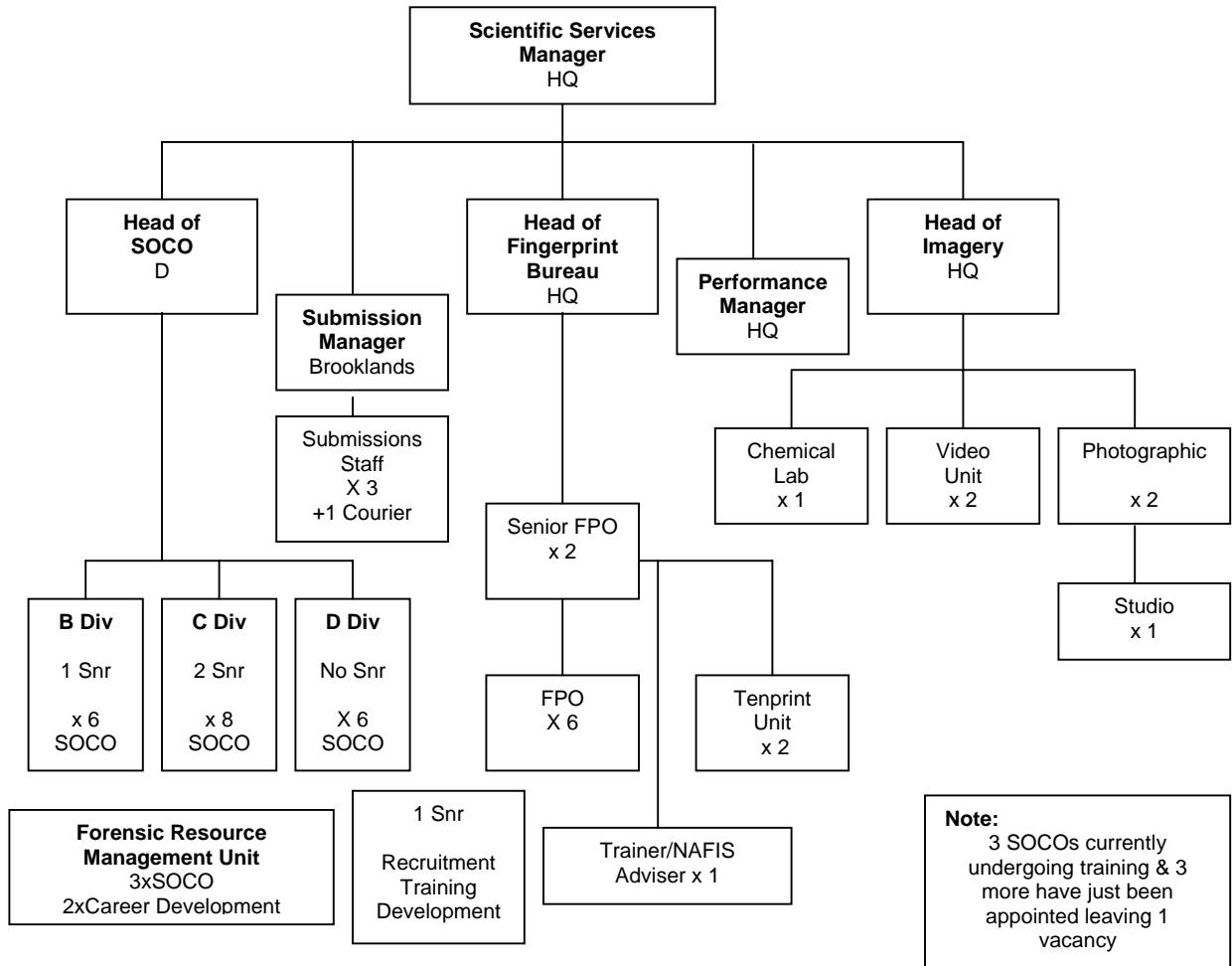
- 5.2.3 SSD budget for 2004/05 represents **3.4%** of the force's total budget with no growth for 2005/06. Unfortunately, for the purpose of this review, there is no way of identifying the percentage of SSD budget spent specifically on Volume Crime.
- 5.2.4 Comparison with our MSF in terms of SSD budget allocation is as follows:

**Table 12: MSF Budget Comparison**

A & S	Hampshire	Kent	Leicestershire	Northants
3.0%	3.3%	2.2%	3.6%	2.99%

- 5.2.5 The individual roles and responsibilities within the SSD disciplines has been explained previously in this review at Section 1.3 but a visual breakdown of the departments management structure and resource composition may assist further:

**Chart 4: SSD Organisational Chart**



**5.2.6 Scenes of Crime:**

5.2.7 As can be seen, the current operating model means that the majority of scientific services is based at Headquarters with only SOCOs and their Seniors located on the three territorial divisions with the Submissions Unit based at a separate site. The situation of SOCOs sited on divisions has existed for many years. The only variance has been with operational management and responsibility for those resources. The present situation is that there is an establishment of 28 SOCOs who come under the overall control of the SSM but who are line managed by their seniors on divisions.

5.2.8 SOCOs presence on divisions has inevitably led over the years to a certain degree of parochialism with Divisional Managers viewing these resources as their own and tasking to local priorities. Consultation with staff from the respective disciplines seems to suggest that such geographic division between SOCO and SSD colleagues has engendered communication issues that impact on performance.

5.2.9 Currently resource levels in SOCO are 1 under establishment with existing resources being used to staff the FRMU.

5.2.10 By way of comparison, the establishment of our family of most similar forces is as follows:

**Table 13: SOCO Establishment**

<b>Force</b>	<b>Establishment, Structure and Coverage</b>
Avon & Somerset	<ul style="list-style-type: none"> <li>Avon and Somerset employ <b>7</b> Crime Scene Investigator Team Leaders and <b>36.5</b> Crime Scene Investigators forcewide. CSIs are based on BCUs but managed and budgeted for from the centre. All other disciplines are located at HQ.</li> <li>They operate between 0800 and 2200.</li> </ul>
Hampshire	<ul style="list-style-type: none"> <li>Hampshire employ <b>45</b> Crime Scene Investigators and <b>12</b> Volume Crime Scene Investigators forcewide.</li> <li>Hampshire's CSIs are based on BCUs but both staff and budgets are managed from the centre.</li> <li>They operate between 0800 and 2200.</li> </ul>
Kent	<ul style="list-style-type: none"> <li>Kent have <b>10</b> Senior Crime Scene Investigators and <b>42</b> CSIs based within their 9 BCUs.</li> <li>In addition they have a total of <b>9</b> Volume Crime Scene Examiners located at 4 of their BCUs.</li> <li>Their organisational structure is based on local deployment of CSI but centrally managed. All other disciplines are based at HQ.</li> <li>They operate between the hours of 0800 and 2200.</li> </ul>
Leicestershire	<ul style="list-style-type: none"> <li>Leicestershire have <b>4</b> Senior SOCOs, <b>4</b> Asst Senior SOCOs and <b>28</b> SOCOs.</li> <li>VCSEs are incorporated within establishment.</li> <li>In Leicestershire SOCOs are based on BCUs but managed centrally.</li> <li>They operate 4 shifts between 0700 and 2200.</li> </ul>
Northants	<ul style="list-style-type: none"> <li>Northants have <b>14</b> Crime Scene Examiners and <b>15</b> Volume Crime Scene Examiners forcewide.</li> <li>They have CSEs based at Force HQ along with the other disciplines. This is not a fully centralised model however, as there are CSEs based at a depot elsewhere ensuring better coverage of the county.</li> <li>They operate between 0800 and 2200.</li> </ul>

5.2.11 National research has been conducted in relation to SOCO establishment and concluded that there is a wide variation in the numbers of SOCOs per Force and their ratio against numbers of Police Officers and Recorded Crimes. There is no agreement on an ideal ratio.

#### 5.2.12 Imagery Department:

5.2.13 Based at HQ it provides the force with its photographic capability, video analysis and Chemical Laboratory. The department currently employs seven staff including an administrative post. Some staff are multi-tasked due to lack of resilience in the Chemical Lab. The department is currently operating at one under establishment level with a vacancy in the Photographic Department.

#### 5.2.14 Fingerprint Bureau:

5.2.15 The bureau is based at HQ and incorporates the Tenprint Unit, Fingerprint Officers and Shoewear capability. They are currently one post under establishment operating with one full time FPO vacancy.

#### 5.2.16 FRMU

5.2.17 The unit has an establishment of 3 SOCOs drawn from operational duties and two additional staff seconded on career development attachments from the call handling function. The unit operates seven days a week, 7am – 10pm Monday to Saturday and 8am to 9pm Sundays.

#### 5.2.18 Brooklands

5.2.19 The unit operates with a Submissions Manager, 2 staff processing DNA submissions, 1 staff member dealing with general submissions and 1 Courier. There is one part time vacancy in DNA submissions.

### 5.3 Baseline Performance

5.3.1 To give some perspective to where SSD are now in terms of performance, the review has benchmarked Bedfordshire against its Most Similar Forces. The tables below provide benchmarking data that relates to the first two quarters of the 2004-05 year. This data is provided on a monthly basis to the Home Office by the Performance Manager and fulfils the force's GDR (General Data Report) requirement.

#### 5.3.2 Crime Scene Examination

**Table 14: MSF Crime Scene Examination Performance**

	<b>BEDS</b>	<b>MSF</b>
Burglary Dwelling Scenes examined	<b>97%</b>	<b>84%</b>
Theft of Motor Vehicle examinations	<b>52%</b>	<b>53%</b>

Source: iQuanta

5.3.3 Since the publication of these figures Bedfordshire has embarked upon two localised initiatives in C and D Division namely Operation Burette and Operation Aztec. The aim of these initiatives is to target vehicle crime, deploying additional resources to achieve greater evidential yield through higher examination rates.

5.3.4 In line with force objectives Burglary Dwelling scene attendance is given priority reinforced by a SLA of 100% and so the 97% figure should be expected.

## 5.3.5 Evidence Recovery

**Table 15: MSF Evidence Recovery Performance**

	Beds	MSF
<b>F/P Recovery</b> (From Scenes Examined)		
Burglary Dwelling	35%	40%
Theft of Motor Vehicle	58%	52%
<b>DNA Recovery</b> (From Scenes Examined)		
Burglary Dwelling	11%	9%
Theft of Motor Vehicle	25%	20%

Source: iQuanta

## 5.3.6 Identifications

**Table 16: MSF Identifications Performance**

	Beds	MSF
<b>F/P idents</b> (From Recovery)		
Burglary Dwelling	15%	15%
Theft of Motor Vehicle	24%	28%
<b>DNA Matches</b> (From Recovery)		
Burglary Dwelling	12%	30%
Theft of Motor Vehicle	41%	44%

Source: iQuanta

5.3.7 The 12% figure appears low by comparison with our MSF but can be explained by the fact that during the period of comparison Bedfordshire were focusing on Operation Blythe where SOCOs had been advised to concentrate their efforts on carrying out more speculative DNA swabbing. However, the proportion of matches to swabs taken were low and therefore the policy has had to be reviewed.

## 5.3.8 Conversion of Identifications into Detections

**Table 17: MSF Conversion Performance**

	Beds	MSF
<b>FP Idents to Detections</b>		
Primary Detections per Ident	34%	39%
Total detection per Ident	121%	75%
<b>DNA Matches to Detections</b>		
Primary Detections to Match	48%	39%
Total Detections per Match	91%	90%

Source: iQuanta

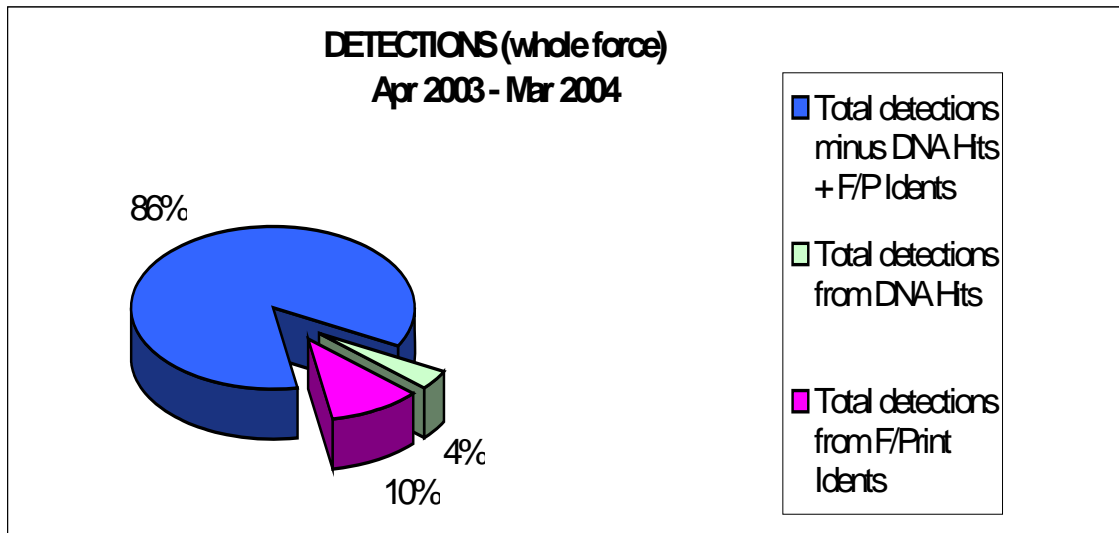
5.3.9 The detection figure of 121% can be accounted for as a figure that includes secondary detections and multiple detections gained from single idents.

5.3.10 When considering the department's performance internally and its contribution to overall force detection rates it can be seen in the charts below that SSD outcomes appear small by comparison. This is due in part to SSD effort being directed towards Control Strategy crime which accounts for approximately one third of all crime.

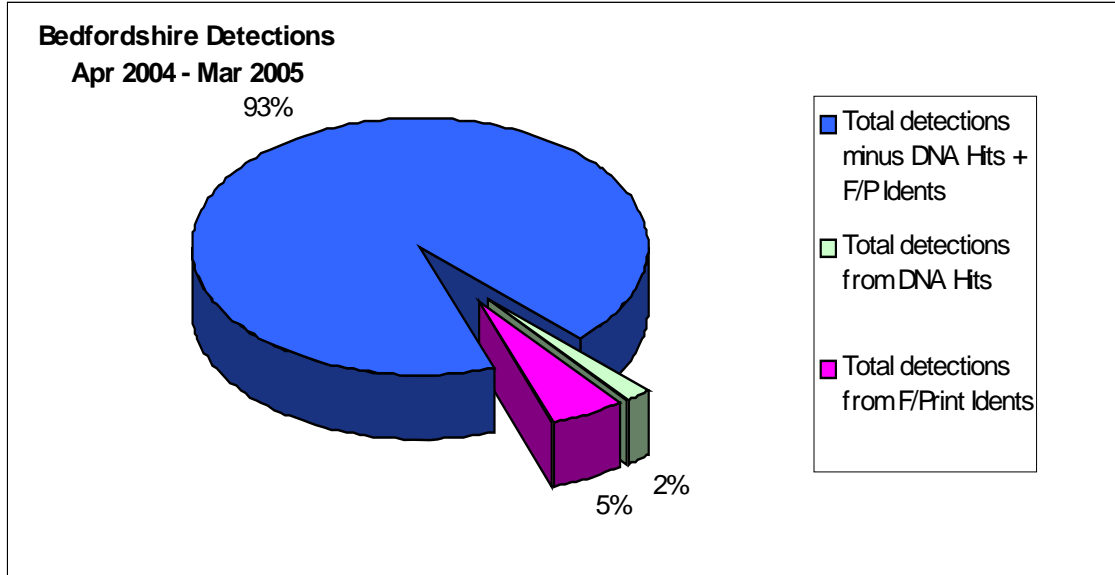
5.3.11 Equally, it can be seen that there appears to be a downturn in performance between 2003-04 and 2004-05 which does not correlate with SSD performance against its Most Similar Forces. This can be attributed, in part, to a combination of high clear up rates for Cheque Fraud cases in 2003-04 and the introduction of new and inexperienced SOCO staff in 2004-05. Additionally performance improvement in other non – forensic led areas over the past 18 months may portray SSD performance in a misleading light.

5.3.12 To add further perspective, it is worthy of mention that DNA contribution appears small but statistics given at the 2004 FSS Conference suggests that DNA is only loaded onto the NDNADB from 5% of all crime scenes. Its value, however, is evidenced nationally by the fact that where DNA is present at Domestic Burglaries, detection rates rise from 15% to 46%, likewise TFMV detections rise from 7% to 61%. With a 50% decrease in forensic led detections over a 12 month period it may, however, be appropriate to consider setting performance targets for 2005/06.

**Chart 5: 2003/04 FP and DNA Contribution to Detections**

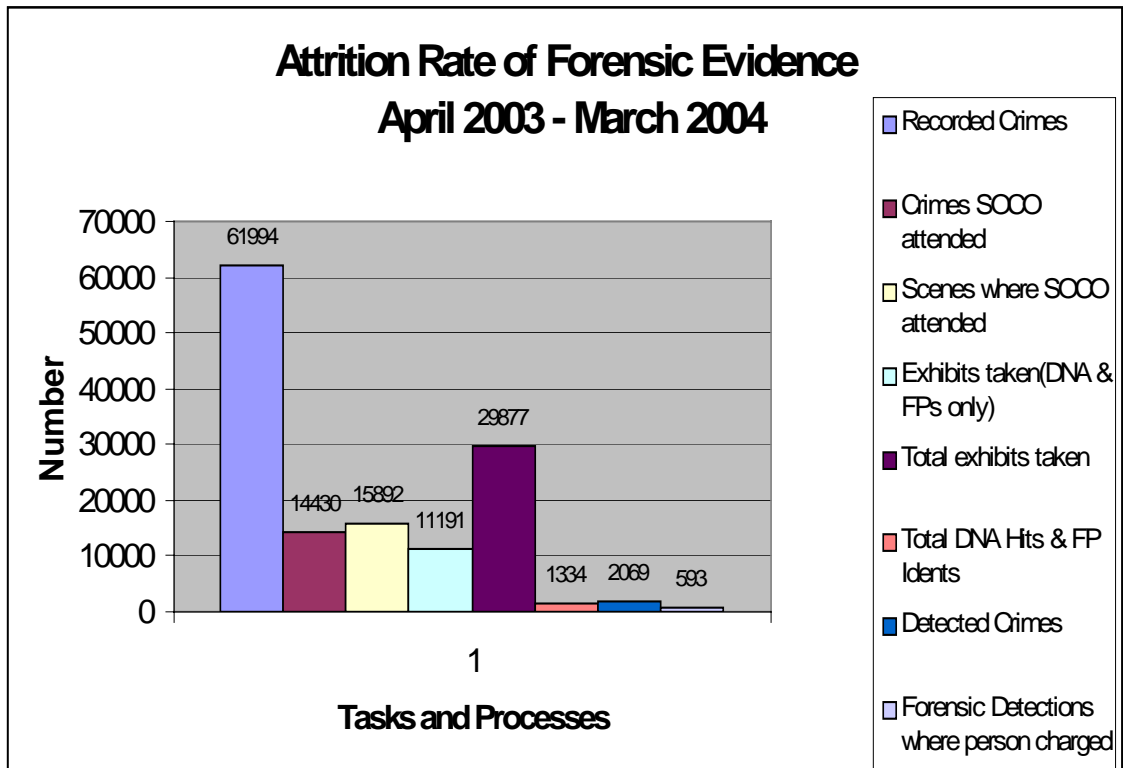


**Chart 6: 2004/05 FP and DNA Contribution to Detections**



5.3.13 The attrition rates shown below take 2003-04 recorded crime and illustrate how the force performed in terms of judicial outcome from scientific led outputs.

**Chart 7: 2003/04 Attrition Rates**



- 5.3.14 Examining the attrition rate data further it shows that SOCO attended 25% of all recorded crime scenes which produced a DNA/Fingerprint yield of 70%. Of this yield 12% resulted in Idents/Hits. The resultant conversion rate of Identifications to Detections was 155%. This may stimulate the debate instigated by HMIC in 'Under the Microscope' that the more scenes attended, the greater the yield. Greater yield results in more Idents and subsequent higher detection rates.

## 6 Business Operating Model Workstream - SWOT Analysis

### 6.1 Strengths

- 6.1.1 The overall performance of the SSD compares well against its family of most similar forces in most of the measurable elements required by the Home Office. It also appears to be performing well against those forces that are deemed by the Home Office to be exhibiting good practice within their forensic disciplines.
- 6.1.2 SSD were reviewed by the PSU in 2004 and SSD have implemented the majority of the 33 recommendations that sought to address matters of process and performance management. Included in these recommendations were the requirement that the force creates posts for Performance Management and Submissions Management.
- 6.1.3 Funding from the DNA Expansion Fund has been put to good use in facilitating the creation of the Performance Manager's post, three more SOCOs and the three Forensic Identification Co-ordinators posts on divisions.
- 6.1.4 Through the creation of the Performance Managers post, marked improvements have been achieved in the collection and dissemination of scientific performance data with the force now being compliant with Home Office data requirements. By comparison with other Best Value Review forces, this is an area where Bedfordshire performs well.
- 6.1.5 The SSM has also ensured that Scientific Services are obtaining value for money in terms of outsourced services. This has been achieved by constant review of external service provision, SLAs and competitive contracts with alternative suppliers such as the agreement with LGC for processing of the CJ samples.
- 6.1.6 With a developed external market place for forensic services, the outsourcing of the Scenes of Crime function, in particular, has been considered. Consultation with FSS reveals that such a service is available but contractual and legal difficulties combined with staffing issues makes any such service agreement not viable at this time. This type of arrangement has been attempted previously with Warwickshire entering into a temporary agreement with FSS to provide Volume Crime Scene Examiners. However, overall outcomes did not inspire the force to renew this arrangement.
- 6.1.7 Equally, in relation to Fingerprint Services, there is at present no viable alternative to the current in-house approach but an acknowledgement that future regional collaborative opportunities may be an option. The Imagery Department is in a similar position in that all Crime Photography is part of the investigative process and, as such, a core business area that is inappropriate for outsourcing. Additionally where there is potential for outsourcing of non-core business such as film processing, the force are now self sufficient with their own digital mini-lab.

- 6.1.8 Although it is joint ACPO Home Office Policy that states that the FSS "*should remain the principal provider of scientific services*" it is evident that the force regularly explore alternative service provision. Collaborative and Joint Tendering arrangements are also in existence with neighbouring forces and include the use of Bedfordshire's Palmprint facility with Hertfordshire along with the sharing of major case records. Hertfordshire are also monitoring the effectiveness of the FRMU with a view to possible collaboration.
- 6.1.9 Another collaborative arrangement exists between the force and RAF whereby fingerprint services are provided under a contracted basis. Similarly, the force has explored the possibility of engaging RAF SOCOs as an alternative service provider, however, legislative restrictions and MOD regulations render this option impractical.
- 6.1.10 Other cost benefits have been achieved through the creation of a Submissions Managers post. Savings in excess of £100,000 being achieved in the last financial year through improved monitoring and quality control of forensic submissions.
- 6.1.11 Strategically, the force has a Forensic Champion in the DCC who meets regularly with the SSM and Head of Crime to chart the strategic direction of forensic services. A force Forensic Strategy Group also exists to ensure that scientific services focus on meeting both force and divisional objectives and provides an input for Crime Managers.
- 6.1.12 In 2005 SSD achieved ISO 9002 status in all three disciplines. Such additional scrutiny can only help to reinforce a quality approach within the disciplines.
- 6.1.13 In relation to scientific service delivery to victims of crime, the review consulted with 40 victims of Volume Crime via Customer Satisfaction Surveys conducted between July 2004 and January 2005.
- 6.1.14 Victims responses to SOC service received were categorised as follows:

**Table 18: Victim Satisfaction with SOC Services**

	<b>Victim Kept Informed</b>	<b>Promptness</b>	<b>Positive Contribution by SOCO</b>	<b>Reassurance Given</b>
<b>Satisfied</b>	4	7	5	11
<b>Not Satisfied</b>	3	3	4	3

- 6.1.15 Acknowledging the small sample size, the survey revealed that the majority of respondents were satisfied with the timeliness of the SOCO response and were particularly praiseworthy of the support and reassurance given whilst at scene.
- 6.1.16 One area of concern was that victims felt that they were not being listened to on occasions, when offering suggestions for lines of investigation and areas for examination. In these instances victims felt that SOCO had not made a positive contribution to the investigation as the examination had no victim input.
- 6.1.17 The survey raises three questions for consideration by SSD management.
- Who quality assures the work of SOCOs?
  - How do we currently gauge service provision to internal users?
  - Do we need to survey the external user to determine quality of service?

**BVR Management Action 2:**  
 Through the Senior Survey Manager, Quality of Service Surveys to be amended to incorporate collection of specific satisfaction and reassurance data that determines service delivery to victims having contact with SOCO.

6.1.18 Remaining with Quality of Service issues, the review examined service delivery at the very ‘front end’ and the initial contact made between victims and the force’s Call Handling Centre. It found that Call Handlers access a ‘script’ incorporated within the CHIMPS facility that gives advice and guidance to victims on initial actions and scene preservation. The nature of the advice given appears appropriate and is viewed as giving good service and reassurance at the initial point of contact.

**6.2 Weaknesses**

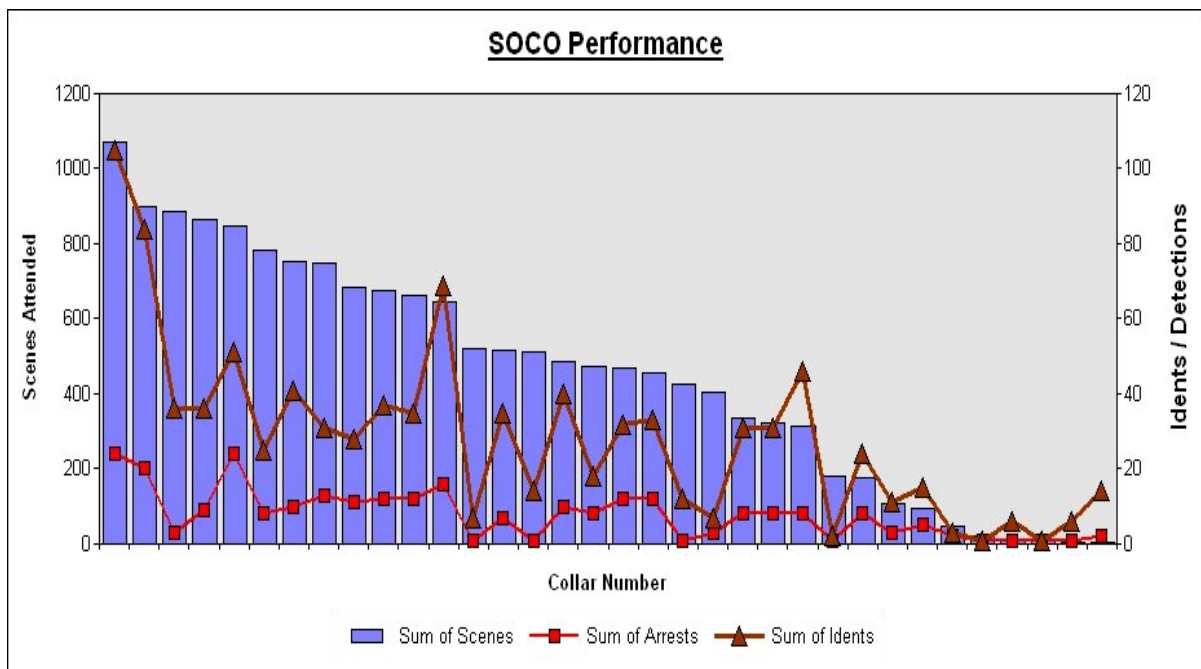
6.2.1 The SWIM Project has identified gaps in the ‘end to end’ performance of Scientific Services.

6.2.2 It identifies a 79 day overall ‘end to end’ process time and highlights the following specific areas for improvement that are within the control of the department:

- **Scene attendance** – Currently achieving 3.38 scenes per day per SOCO. Target: 4 per day.
- **Evidence Submission Times** – Currently 7.4 days. Target: 2 days.
- **Fingerprint TRTs** – Target: 14 days.

6.2.3 Individual SOCO performance variability has also been identified within SWIM findings as an area for performance improvement. Inexperience and lack of a structured mentoring programme are cited as contributory factors for disparity between levels of scene attendance and outcomes.

**Chart 8: Individual SOCO Performance (SWIM)**



- 6.2.4 Such is the level of variance that the best practice by the high performers is seen as an opportunity for the department to share such practice with the inexperienced staff through a structured training programme.

**BVR Recommendation 5:**

Develop a Skills Development Plan that takes place post training and incorporates a structured coaching programme to reduce the variance in SOCO performance plus improve Customer Care.

- 6.2.5 FRMU began operationally in February 2005 with the following aims:
- Monitor requests for SOCO attendance at scenes and allocate ensuring timely response
  - Track movements of SOCO to ensure most effective deployment
  - Maintain contact with victim and advise regarding scene preservation
  - Assess reported crimes for determine forensic potential before deployment.
- 6.2.6 As the unit has only been in operation for 3 months, limited evaluation of its performance has been possible, however, research suggests more scenes have been attended between April and May 2005 and Theft from Motor Vehicle examinations have increased to an average of 25%.
- 6.2.7 Consultation with divisional users would suggest, however, that they are not totally satisfied with the service that they are receiving and feel that resources normally based within their respective divisions are being diverted away from local priorities to supplement demand in other divisions. Vehicle crime is singled out by divisions as an area being overlooked. Comment from Divisional Crime Managers refers to FRMU not being part of the 'communication loop', being unaware of individual divisional priorities, targets and hotspots.
- 6.2.8 The review sees this issue as a potential 'quick win', with divisions communicating with FRMU on a daily basis, updating them electronically with the tasking priorities and direction prompted by the daily Divisional Tasking Meeting.
- 6.2.9 There are also issues of resilience whereby difficulty has been encountered with resourcing the unit for seven day two shift coverage. In the event of resource shortfalls, the service has had to resort back to FIR control causing variance in service delivery.
- 6.2.10 SOCOs themselves are divided as to the effectiveness of central control with loss of local ownership and self- tasking cited as concerns. The other consideration is whether the deployment of three experienced SOCOs to the FRMU is the most effective use of specialist staff.

**BVR Management Action 3:**

SSD to review and amend SOCO Attendance Policy to better reflect the tasking requirements of divisions whilst addressing the conflicting priorities of the force, the victim and the crime scene potential.

- 6.2.11 The review, in consulting with operational staff on divisions, has identified a knowledge gap and a clear training need in relation to initial scene assessment and preservation. Consultation with SOCOs concur with this view and cite it as an area where time can be wasted with unnecessary scene attendance.

- 6.2.12 Reinforcing this view are the findings from 'Under the Microscope' that identified that the first officer attending a scene invariably had the responsibility of deciding on SOCO attendance. The report states '*It is not uncommon for the first officers attending to ask for SOCO and this may support the argument that they are not particularly effective in identifying DNA productive scenes*'.
- 6.2.13 In April 2006, the new Initial Police Learning and Development Programme (IPLDP) will present an opportunity for the force to address the training needs through more localised training and structured attachments.
- 6.2.14 Present training of probationers comprises of classroom based inputs on Levels 3 and 5 relating to the Scenes of Crime Department, Fingerprint Bureau and the Forensic Science Service. IPLDP, through its modular approach, will provide a more practically based training environment with officers shadowing staff from the three disciplines.
- 6.2.15 Another area for service improvement is in the reduction in Legitimate Access Indents. With the force's 2004 total indent tally comprising 20% legitimate access marks there is obvious scope for improvement. With the main cause of the problem being the failure to take elimination prints at scene or at the earliest opportunity, coupled with confusion over whose responsibility this task is, delays have been caused within the bureau and at investigative stage.
- 6.2.16 Impetus for improvement in relation to this comes from HMIC who states that "*Forces have an obligation to prevent the growth of legitimate access marks being retained and subsequently searched*". This has been acknowledged by the SSM and the resultant focus on this area of performance has led to improvements in 2005.

**BVR Management Action 4:**

SSD to develop and implement a procedure that addresses the taking of Elimination Prints from Volume Crime Scenes. [A target of 10% Legitimate Access Indents to be set and monitored through the Performance Management Process]

- 6.2.17 Maximising opportunities to exploit forensic intelligence has been flagged up by the review as a critical area where SSD are viewed by divisions as not fulfilling their obligation to the NIM process. Consultation with divisional Crime Managers confirms that SSD are not represented on the Divisional Tactical Tasking and Co-ordination Group (DTTCG) or at the daily tasking briefings. Divisions consider scientific support contribution as crucial in intelligence driven tasking and would expect SOC representation at senior level.

**BVR Management Action 5:**

SSM to ensure that SSD are represented on TTCG as Standing Members.

- 6.2.18 The Forensic Identification Co-ordinators (FIC) on divisions who are responsible for compiling the identification packages are another resource that does not appear to be fully exploited and may present scope for involving them more in the intelligence aspects. Funded by the DNA Expansion Fund and created to provide co-ordination between forensic disciplines and divisional investigators, the postholders have become more focused on administrative functions at the expense of the collation and sharing of forensic intelligence.

6.2.19 There is certainly scope for them to feed intelligence into the appropriate divisional channels and provide the representation on the daily Divisional Tasking Meeting effectively plugging the communication gap between HQ and division that has been identified by Crime Managers.

6.2.20 B Division are fortunate in this respect in that they have both a FIC and a Forensic Intelligence Officer who contribute more to the divisions investigative capability and effectiveness.

**BVR Management Action 6:**

Review and amend role requirement of Divisional Forensic Identification Co-ordinators to incorporate a more proactive Intelligence role with monitoring via the annual appraisal framework.

6.2.21 In relation to Budgetary Control, the overall SSD budget is managed by the SSM with allocation of small budgets to departmental heads for the procurement of consumables. One aspect of the budget that falls outside of the control of the SSM but not the responsibility for is that of SOC. This is the largest budget within SSD and includes FSS, NAFIS, DNA and Pathology. This is managed by the SOC departmental head.

6.2.22 It appears sensible to leave the day to day budgetary matters with the departmental head but realign overall control of SOC budgets to the person who has overall responsibility, the SSM.

**BVR Recommendation 6:**

Head of SCS to realign overall SOC Budgetary responsibility to the SSM

6.2.23 Finally, another weakness revealed during the consultation process with SSD staff was of communication gaps and strained working relationships within the Scenes of Crime department. Such was the frustration amongst SOC staff towards certain supervisory and management issues, which were compounded by ongoing accommodation matters, that performance was clearly being impacted upon.

6.2.24 These concerns were flagged up by the Review Team who established that the management were already addressing the problem.

### 6.3 Opportunities

6.3.1 Driving change for procurement of forensic services is the HO Science and Technology Strategy and ACPO Forensic Integration Strategy.

6.3.2 It is envisaged that by 2008 forces there will be a fully competitive market place reforming the way forces procure forensic services and leading to:

- Offence based procurement
- Common delivery and performance definitions
- Standards and associated payment terms
- Open and cost effective tendering process
- Smaller numbers of contracts
- Access to national collections of data

- Best Value
- 6.3.3 Such development will provide the force with an opportunity to engender more collaborative partnership relationships whilst affording them access to a wider variety of new and improved technologies.
- 6.3.4 In the interim period, Bedfordshire have entered into a regional collaborative arrangement that seeks to achieve even greater discounts for external services. This arrangement commenced on 1st June 2005.
- 6.3.5 The DNA Expansion Fund allocation for 2004/05 of £669,345 has allowed for growth in the SSD in key areas such as SOCO, Submissions, Forensic Intelligence and Performance Management with similar development opportunities expected in 2005/06.
- 6.3.6 As of April 2006, current probationer training arrangements will be replaced by an 'in force' training programme called the Initial Police Learning and Development Programme (IPLDP). This will create an opportunity to address, through structured attachments, the forensic knowledge gap that exists at probationer level.
- 6.3.7 Information Technology opportunities have been discussed earlier in the report in relation to improved end-to-end performance monitoring and the utilisation of mobile data to reduce overall process times.
- 6.3.8 Without exception all forces that have been consulted within the review have stated that they operate with Volume Crime Scene Examiners (VCSE). Their rationale being that vehicle crime, in particular, is a Control Strategy crime which forces do not exploit fully forensically. This is illustrated by Bedfordshire's low attendance rates in the past and the need for divisions to respond with dedicated initiatives such as Operation Aztec and Burette. Both UTM and the PSU Report make reference to the value of VCSE and the need for forces to actively task more SOCOs to volume crime scenes. Findings from UTM was that forces employing VCSEs found that Fingerprint Bureau workloads increased by 25% due to the increased yield submission. Bedfordshire do not operate with VCSEs but have previously trained newly appointed staff to VCSE levels in the recent past. Demand, however, required that these staff were upgraded to full SOCO skill levels.
- 6.3.9 It is fair to say that the force have made improvement recently in its attendance at vehicle crime scenes, with TOMV inviting 46% attendance and TFMV 21% with outcomes improving as a consequence. This improvement came predominantly from Operations Burette and Aztec with 9 DNA Hits and 12 Fingerprint Idents collectively for May 2005. The review therefore suggests that the force consider deploying VCSEs as a dedicated response to Volume Crime.
- 6.3.10 Remaining with resource issues, shift patterns for SOCO present an opportunity for review. SOC staff have expressed concern regarding the current 5 shift system suggesting that it does not represent best use of resources. In particular, the requirement to work up until midnight. This is seen by staff as being unproductive and merely an opportunity to catch up on outstanding paperwork not attend scenes at unreasonable hours.
- 6.3.11 SWIM have profiled reported crimes and frequency of reporting over 24 hours and their findings support previous research on demand curves that suggest that there are still crimes being reported up until midnight but the peak is between 9am and 5pm. They conclude,

through change simulation, that bringing the Late Shift forward by 2 hours will have little effect on attendance or service delivery as these are scenes that are unlikely to be examined until the following day due to the lateness of hour. SWIM suggest that by moving the Late Turn finishing time back to 2200 hours it creates a 7 hour overlap with the previous shift and hence signals an opportunity to rationalise the current 8 week shift pattern to something less complex plus improve the work/life balance.

- 6.3.12 By comparison with our family of Most Similar Forces, none of them employ SOCOs after 2200 hours, offering cover after this time through a call-out facility. SWIM suggest a change to the current shift pattern would benefit staff in terms of work/life balance without impacting on performance.

**BVR Management Action 7:**

SSD to review and amend current shift pattern to reflect optimum use of resources between the hours of 0800 and 2200.

- 6.3.13 Footwear development is another growth area for scientific services that HMIC has promoted through the UTM report. Bedfordshire have recently acquired an intelligence database from FSS that allows for scene marks to be identified by shoe category and the force have trained two members of staff from the Fingerprint Bureau in the use of the system. To complement this training all SOCOs have been given a footwear awareness input. In addition one division makes use of a commercially manufactured system called SICAR (Shoeprint Image Capture and Retrieval) to capture scene marks and compare scene to scene or scene to suspect marks.
- 6.3.14 In the first month of a footwear pilot running in D Division that utilised the FSS Database, 43.5% of shoeprints submitted to the bureau were classified by make and model.
- 6.3.15 It is reasonable to suggest, however, that Bedfordshire do not fully exploit footwear's forensic potential force-wide and may be losing valuable detection or corroborative opportunities. The situation, however, is not aided by the fact that both footwear system operatives in the bureau are completing this new work in addition to their normal fingerprint responsibilities and are therefore already over capacity servicing just one division's work.
- 6.3.16 It is imperative, therefore, that the force view footwear evidence as adding value to volume crime investigation and attach the appropriate level of support to resourcing a dedicated footwear response operating within the Fingerprint Bureau.

**BVR Recommendation 7:**

A dedicated post to be created within the Fingerprint Bureau that manages and co-ordinates the force-wide response to footwear evidence.

- 6.3.17 Lancashire are considered by HMIC to be exhibiting best practice in this area submitting more footwear marks to FSS than any other force. Their outcomes being equally positive because of the screening process employed prior to submission.
- 6.3.18 The IDENT1 project will soon take over from the existing NAFIS system. It will enhance accuracy and efficiency and provide a platform for a wider range of identification services including a national automated palmprint system.

- 6.3.19 Finally, both the findings of the Review and SWIM support the need for the force to identify an individual to take overall ownership for end-to-end performance of scientific led investigations. It would be unrealistic for the SSM to solely inherit this responsibility as there is an investigative process that is outside of their control. Equally Senior Crime Managers on divisions would not have control of the forensic processes involved.
- 6.3.20 It would, therefore, seem appropriate that the Head of Specialist Crime Services, who has overall strategic responsibility for both investigative aspects, inherit this role, 'championing' operational performance.

## 6.4 Threats

- 6.4.1 Scientific Services Department, through the continuing demand placed on their services, are now finding that they are outgrowing their present accommodation. This has been a gradual development, onset by the increase in establishment and introduction of new functions, processes and technologies.
- 6.4.2 Firstly Fingerprint Bureau have the following accommodation issues:
- Insufficient space for Tenprint Unit
  - Insufficient space for Fingerprint Officers and and Palm Searching System
  - Insufficient space to develop forcewide footwear project
  - Fingerprint and Case Storage overload
  - No private space for Principal Fingerprint Officer.
- 6.4.3 A legislative change in the form of Sections 7 and 8 of the Criminal Justice Act means that all persons brought into custody will have their Fingerprints taken. Forces estimate that this will increase the workload of some fingerprint bureau by approximately 40%. Similarly, Imagery now find that Office and Studio space is now inappropriate for the transition over to digital.
- 6.4.4 Scenes of Crime are faced with an acute accommodation problem whereby Luton have just had their overall office space reduced due to the division reclaiming an office back. This leaves 17 staff working in an environment suitable for 10 and as such is a genuine Health and Safety issue that is acknowledged following an inspection by the Health and Safety Advisor.
- 6.4.5 SOCO based in D Division are no longer based at the divisional HQ and are now based at Leighton Buzzard in accommodation that is in poor condition and not deemed fit for purpose. There are also IT/Communication issues unique to this location making transmission of data difficult.
- 6.4.6 In the case of B Division, SOCOs are housed in facilities now reaching capacity, but who are also facing a move with the expected wholesale relocation from Greyfriars.
- 6.4.7 FRMU based at HQ are operating out an office that allows no scope for expansion and Brooklands in Kempston is potentially being earmarked for additional functions outside of SSD with existing space insufficient to accommodate the Submissions Manager with their own office. In addition, Brooklands is not owned by the force with its temporary lease expiring in November 2006.

- 6.4.8 Another threat comes in the form of recruitment and retention of staff. SOC in particular have lost five members of its team recently to neighbouring forces with staff primarily citing financial considerations and shift patterns as reasons for their move.

## 6.5 Business Operating Model - Findings

- 6.5.1 The following extracts are from authoritative reports, inspections and recent research and give a balanced selection of views that either support centralisation of SSD as a preferred model or an alternative.

- 6.5.2 HMICs Report 'Under the Microscope' 2002 states:

*The devolvment of functions from HQ to BCU has been a trend in police management over the last few years. It is often at BCU level that staff are best able to respond to local needs and in doing so, secure improved value for money. There remains however, a need for corporacy and HQ control and influence.*

- 6.5.3 Forensic Science and Crime Investigation 1996 (H.O. Study of 12 Forces SSDs) under the heading of 'Structure' the reports says:

*"In terms of geographical arrangements of SOCO within Forces, this varied widely in the study. Some had SOCOs based at HQ, normally where the HQ was fairly central and meant that travelling time to scenes was never more than 30 minutes. In more geographically dispersed forces different patterns existed, with SOCOs having their own bases to save on travelling time and some covering more than one division. The most effective arrangement appears to be that of where SOCOs are based on divisions and share premises with operational officers, enabling informal communication about cases and feedback on scene visits."*

- 6.5.4 The H O Research Document 24/04(Management of Crime Scene Investigation) states:

*"Scientific Services Departments performance was not directly dependant on whether SOCOs are located in BCUs or at HQ. Performance was more closely associated with the integration of SSD activity into crime investigation and the way in which SOCOs were managed within the overall approach."*

- 6.5.5 The PSU Report on Bedfordshire SSD2004 made the following recommendation:

*"Consideration should be given to the full centralisation of scenes of crime personnel. Furthermore the regionalisation of offices at division with a senior SOCO based at each site should be considered as an interim measure. The isolation of officers should be avoided where possible and a dedicated line manager should be located at the same station. This decreases the number of procedural variations and promotes standardisation. In addition it aids both quality and performance management.*

- 6.5.6 Following a successful ISO 9001 Inspection and Audit of SSD in February 2005, feedback was received in the form of a recommendation to improve overall efficiency of Scientific Services. It stated:

*"Bring together all disciplines within SSD under one roof. This will enable the better use of resources, together with greater flexibility of the Scenes of Crime Officers. The introduction of FRMU has enabled better use of resources by allowing SOCOs to be directed where needed during their shift, but they are still restricted by having a fixed area. Because of the size of the county, travel between job should not be an issue.*

*A single location would also enable a greater 'team spirit' to be generated together with a better understanding by all staff of the problems encountered by other disciplines, leading to quicker solutions and efficiency improvement.*

- 6.5.7 SWIM when considering attendance of SOCOs reveal that 67% of crimes are attended within 24 hours with best practice forces from their research achieving 80%. Swim suggest that centralisation of SOCOs will improve potential for attendance time by 44%.
- 6.5.8 Options for Consideration
1. Centrally managed and BCU based SOCO
  2. Centrally managed and Centrally based SOCOs
  3. BCU managed and BCU based SOCOs
- 6.5.9 **Option One** is the existing model being operated within force that current levels of performance can be associated with. Consultation at senior user level suggests that although they are not satisfied with current levels of service, consensus is that this model is preferable to centralisation as divisions want to retain SOC resources locally citing attendance times, quality of service and local tasking as factors. The majority of SOC staff, themselves, do not support a centralised model suggesting that locally based resources provide superior service delivery in terms of timeliness, task prioritisation and the benefits of operating with staff that have local knowledge.
- 6.5.10 The forcewide accommodation issues, however, are now deemed by SSD Managers and staff to be at a critical stage with SOCOs operating out of locations that are being rendered unsuitable under Health and Safety guidelines. Scenes of Crime Departments are traditionally heavy users of space, particularly for storage and examination and would certainly benefit from a central storage facility that cannot presently be catered for by the Brooklands Site. It should also be remembered that the Brooklands Site is not owned by the force and only leased up until November 2006. Consultation with the Estate Manager confirms that there is presently little scope for expansion of scenes of crime facilities on divisions.
- 6.5.11 **Option Two** is the fully centralised model with all SSD resources 'under one roof'. This is an option that is supported by senior management within the department who see the need for a 'one team' approach. This model would require a 'new build' or acquisition of a suitably located existing premises as there is no spare divisional or HQ capacity to accommodate such a change. Geographically, these premises would need to be located central to the county to ensure that response times guarantee improved service delivery to all divisions. The obvious perceived benefits of this model is that it allows SSD to pool all its resources, creating one unit with collective experience, skills and synergy and complemented by enhanced levels of supervision. Issues such as Budgets, Procurement and Training could be managed more effectively whilst service delivery should be more consistent and standardised.
- 6.5.12 Other potential cost benefits could be realised through rationalisation of certain roles e.g. Supervision, Submissions and Administration. Equally, divisions and HQ would benefit from the freeing up of accommodation currently used by SSD.
- 6.5.13 Senior Divisional Users views are that to adopt a centralised model would still require a divisionally based resource to provide a communication link that could bridge the NIM gap that exists presently and act as trouble shooter for service delivery issues.

- 6.5.14 Nationally, there does not appear to be overwhelming support for a centralised model and all forces consulted within the review tended to operate within a similar structure to Bedfordshire's current model.
- 6.5.15 The nearest to a centralised model within our family of most similar forces was Northamptonshire Police who have located all disciplines under one roof but who still require a depot at the other end of the county to give more effective coverage.
- 6.5.16 Other recent reviews and inspections such as the PSU Report and SWIM make reference to the adoption of a centralised model offering performance improvement and standardisation of practices and procedures as benefits.
- 6.5.17 Bedfordshire need to consider, would such a business change also impact favourably on such factors as, SOCO workload, policies on attendance, the skills and abilities of individual SOCOs and any practical restraints that SOCOs operate under.
- 6.5.18 **Option Three** is the model where SOCOs are both based and managed on BCUs. The only fundamental difference that this option has from Option One is that SOCOs are managed and budgeted for by divisions with no control or accountability for 'front end' processed from the SSM and even less for overall performance. In giving divisions autonomy of SOCO resources it allows local tasking towards policing priorities and greater synergy with divisional resources. This model was in operation approximately 5 years ago but changed to central governance under Specialist Crime Services.
- 6.5.19 Consulted Forces who have considered this option previously cite a concern that divisional managers do not have the specialist knowledge to professionally line manage the function neither did they want responsibility for additional staff or budgets.

**BVR Discussion Point for Strategy Board:**

Which Business Operating Model for Scientific Support and Services is preferred:

Option 1: Centrally managed and BCU based SOCOs

Option 2: Centrally managed and Centrally based SOCOs

Option 3: BCU managed and BCU based SOCOs

## 7 Conclusions

- 7.1.1 The focus for this review has been on the performance of the SSD in dealing with volume crime and consideration of whether the department's current operating model is still fit for purpose. It has also focused on the relationship between SSD and its main users and suppliers and sought to establish that Best Value principles are being applied to service delivery.
- 7.1.2 The review acknowledges that the force's Scientific Services Department has been subject of much scrutiny recently with both Police Standards Unit Review 2004, ISO 9002 Inspection and National HMIC Reports 2000 & 2002 placing additional obligation on the department to consider and implement a raft of diverse recommendations.
- 7.1.3 The burden of inspection has been compounded somewhat further by implementation of both the SWIM Project and the Best Value Review itself.

- 7.1.4 What is encouraging from a BVR viewpoint is that overall performance of the department has been good when benchmarking against our Most Similar Forces and those forces deemed to exhibit Best Practice.
- 7.1.5 It is also encouraging to report that following such internal and external scrutiny over the last eighteen months the department has implemented the vast majority of recommendations that have doubtless contributed to recent performance improvement.
- 7.1.6 Both the Best Value Review and SWIM, however, find that there is scope for further improvement and have highlighted the need for change in a number of key areas such as Process Lead Times, procurement of integrated Performance Management Systems, use of Mobile Data Technology and adoption of Best Practice Investigation Models.
- 7.1.7 Fundamental to all proposed recommendations, however, is the need to accommodate all three scientific disciplines, either individually or collectively, in an environment where performance can continue to improve whilst delivering a quality of service to its main divisional customers.
- 7.1.8 Three operating models exist that could accommodate the force's current approach to forensic led investigations and debate can be expected over the need for change when overall performance of the department is more than comparable with the force's family of forces.
- 7.1.9 In consideration of these options the review has been cognisant of much authoritative research that does not entirely support centralised models for Scientific Service Departments, instead favouring slight variations on Bedfordshire's present model. Equally all the forces consulted with during the life of this review did not operate with totally centralised resources. The wider force perspective would appear to highlight a variance in opinions on the benefits and dis-benefits of centralised resources. Key divisional users tending to favour the existing structure.
- 7.1.10 Counter to this, there is informed support for a model that will bring all disciplines under one roof, enabling improved response times, the pooling of specialist skills, economies of procurement and the opportunity to rationalise certain posts.
- 7.1.11 The Review Team's opinion of such key business change is that any decision has to be made on sound strategic and financial grounds as the force effectively has three options:
- Leave SOC resources on divisions and address the existing management and accommodation issues;
  - Co-locate all SSD resources in a 'new build' or existing site central to the county;
  - Consider regional or cross border collaboration for key scientific service provision to release resources.
- 7.1.12 The increasing use of scientific services in all aspects of investigation means that it is probably, in terms of resources, one of the fastest expanding areas of policing business and one that requires a large team of specialists demanding of increasing amounts of purpose built accommodation.
- 7.1.13 The current Estates Strategy cannot inform the review further, as this is dependent on the long-term operational strategy. Neither can the review, at this stage, be certain of government intention in relation to reorganisation of force boundaries.

7.1.14 Without this operational vision the review has had difficulty in identifying the most viable option for change and recommend that any decision is taken after consideration by the Force Strategy Board.

## 8 Appendix A: 4C Model

### **Challenge**

- External agencies and service providers such as FSS, Forensic Alliance and Laboratory of the Government Chemist contacted to determine if potential exists for outsourcing existing services
- Examination of potential collaborative arrangements with other forces

### **Compare**

- Bedfordshire's family of 'Most Similar Forces' were used to provide Benchmarking and service delivery comparison.
- Lincolnshire was visited as they were deemed by the Home Office to be exhibiting Best Practice in fast track end to end processes
- West Yorkshire and West Midlands Police Initiatives were examined for good practice elements

### **Consultation**

#### Internal

- Police Authority Review Board
- Force Executive
- Senior Users
- Divisional Commanders
- Project Managers new Probationer Training Project
- Operational officers, staff and supervision (Patrol, CID, Enquiry Office)
- Call Handling Staff
- SOCO

#### External

- Forensic Science Service, Forensic Alliance and Laboratory of Government Chemist
- Family of Most Similar Forces (Avon and Somerset, Kent, Hampshire, Leicestershire, Northamptonshire)
- Best Practice Forces (West Midlands, West Yorkshire & Lincolnshire)
- Other Best Value Forces
- Victims of Crime
- Criminal Justice Agencies( CPS )
- LCJB
- IT Systems and Mobile Data Providers

### **Compete**

- Other external suppliers such as FSS examined to identify areas for alternative service provision/ collaboration/financial savings.

### **Main Sources of Reference :**

HMIC 'Under the Microscope' 2000 and 2002  
 HO Research 'Using Forensic Science Effectively' 1996  
 Police Standards Unit Report for Bedfordshire 2004  
 SWIM Project Report 2005-06-15  
 HO Research - Forensic Science and Crime Investigation 1996  
 Police Science and Technology Strategy 2003-2008

## 9 Appendix B: Other forces' Best Value Review Recommendations

(Recommendations common across a number of forces highlighted in **bold**)

<p><u>Greater Manchester Police</u></p> <ul style="list-style-type: none"> <li>• Implement a blanket Allocation and Attendance Policy for key volume crimes</li> <li>• <b>Senior SOCOs to attend divisional Tasking and Co-ordinating Meetings</b></li> <li>• Increase resource levels across the board for Senior SOCOs, SOCOs and Volume Crime Scene Examiners</li> <li>• Implement a 24/7 shift pattern for SOCOs</li> <li>• <b>Refresher training for operational officers in scene preservation</b></li> <li>• Develop force Scientific Services Strategy that takes cognisance of force and divisional priorities</li> <li>• <b>SOCOs to be based on divisions but controlled from the centre and with the centre managing the budgets</b></li> <li>• Review to be carried out in relation to the dissemination and use of forensic intelligence</li> <li>• <b>Intelligence training for SOCOs and SOCO Seniors</b></li> </ul>
<p><u>North Yorkshire</u></p> <ul style="list-style-type: none"> <li>• <b>Provide better management information by exploiting computurised resources</b></li> <li>• <b>Streamline data collection and procedures in relation to exhibit tracking</b></li> <li>• Improve accessibility of key performance and exhibits data</li> <li>• Improve footwear intelligence systems to aid offender identification</li> <li>• <b>Develop a fast track DNA system that enables earlier identification and arrest of offenders</b></li> </ul>
<p><u>Cambridgeshire</u></p> <ul style="list-style-type: none"> <li>• <b>Provide Scientific Services input to all probationer constables</b></li> <li>• Review current business arrangement with FSS with a view to determining new policy for developing competition in this area</li> <li>• <b>Force and PA to develop a formal framework agreement at regional level covering collaboration on the delivery of scientific support services</b></li> </ul>
<p><u>South Wales</u></p> <ul style="list-style-type: none"> <li>• Review policy and procedures with a view to maximising recovery of DNA evidence from crime scenes</li> <li>• <b>Computerisation of DNA and FP notifications to divisions including improvement of FP and DNA Identification Packages</b></li> <li>• Negotiate Best Value Agreements with forensic science service providers to reduce expenditure and improve quality.</li> <li>• Developmental Training in intelligence gathering for SOCOs</li> <li>• <b>Developmental Training for divisional staff in forensic awareness</b></li> <li>• Reorganisation of SOC offices in line with Force Intelligence Led Philosophy</li> </ul>
<p><u>Derbyshire</u></p> <ul style="list-style-type: none"> <li>• <b>Force to procure and implement an IT System that supports SSD</b></li> <li>• Increase in FP Bureau staffing levels to accommodate legislative changes</li> <li>• Realignment of resources between SOCO and FP Bureau staff</li> </ul>

West Midlands

- Produce a Crime Scenes Management Policy incorporating an attendance and submissions policy
- **Scene Assessment Guidelines to be issued to all operational staff**
- Greater investment in examination of stolen vehicles by employment to two full time vehicle scene examiners
- Senior SOCO to be on BCU TTCG
- **Improved provision of performance information allowing more effective audit and measurement of performance**

Merseyside (SWIM generated recommendations)

- **Review SOCO shift patterns to determine best shift that meets force demands**
- Devise scripts for Call Handlers and Crime Bureau to assist in scene preservation
- Write Deployment Policy for SOCOs to ensure earliest attendance at Volume Crime Scenes
- Conduct a TNA concerning forensic awareness of operational staff
- Write policy for retention of stolen vehicles for 24hours to allow for examination
- Write a Communications Plan for all BCUs that relates to communication of intelligence between SOC, BCU and FSS
- Implement a dispatch box system for all SSD submissions
- SSD to record all submission errors and provide monthly feedback to SOC and BCUs
- **Ensure that IT systems will give the force the ability to task SOCOs and monitor performance from initial scene attendance to significant disposal**
- **Examine accommodation to establish if current arrangements meets the needs of the department**
- Establish a process to quality assure the different forensic suppliers.
- Ensure Merseyside maximise the benefit of DNA database by having policies that load and sample all offender profiles, avoid replication and ensure vetting and selectivity of crime scene submissions.
- To pilot Operation Converter
- **To review the needs and requirements of the force in relation to the new Criminal Justice legislation regarding the taking of fingerprint and DNA samples from all arrestees**
- Introduce daily collections of FP and DNA crime scene samples
- **IT System to be put in place that tracks scientific identifications and provides statistics for no returns**

Hertfordshire

- **That the force strengthens the performance management culture within scientific services**
- **That opportunities are created and developed by appropriate awareness, standardised tasking and increased attendance at volume crime scenes**
- That Scientific Services Branch increase capabilities for processing forensic evidence
- That BCUs ensure they have the capability to deal with and utilise all forensic identifications

## 10 Appendix C: Summary of Key SWIM Recommendations

### **Key SWIM Recommendations**

- Improve Fingerprint Bureau lead times
- Improve Detection lead times
- Reduce individual SOCO performance variability
- Increase SOCO numbers to full establishment
- Raise Fingerprint Officer number to full complement
- Reduce individual Fingerprint performance variability
- Improve cross functional Process Management
- Implement more robust systems for end to end Process Performance Management
- Close Data gaps relating to Identification and Detection Processes

## 11 Appendix D: A Summary of PSU Report Recommendations

### **SUMMARY OF PSU 2004 REPORT RECOMMENDATIONS**

- A System to be in place that provides evidence tracking and performance management capability.
- Establishment of a post that has responsibility of performance.
- Regular analysis of SOCOs individual performance
- Service Level Agreements to be formed between SSD and Divisional Crime Managers
- Revision of the Scene Attendance Policy in relation to Volume Crime Scenes
- All SOCO examinations to be cross referenced with generated Crime Numbers.
- Adopt a new Shift Pattern that provides greatest level of operational resilience.
- Consideration to be given to full centralisation of Scenes of Crime personnel.
- Implement an authorisation structure in relation to forensic laboratory submissions.
- Additional recruitment of personnel to Submissions Unit
- Regular 3 monthly relaunch of unidentified prints on NAFIS
- Service Level Agreements to be established between Scientific Services and Divisional Commanders
- Standard Operational Procedures to be in place in relation to the taking of Elimination Prints
- Consideration to be given to the formation of dedicated units on divisions dealing with forensic idents.
- The development of guidance for investigators dealing with Fingerprint and DNA evidence.
- Consideration to be given to the imposition of timescale targets for processing of forensic led Investigations.

## 2 Appendix E: Forensic Disciplines - 'End to End' Process Map

