PROGRAM 3: CRIME DETECTION

SUB-PROGRAMS 3 & 4:

- The **CRIMINAL RECORD CENTRE** provides for an effective and credible CRC / LCRC service in respect of crime scene management / processing and the provision of criminal history & related information.

- The **FORENSIC SCIENCE LABORATORY** funds forensic science laboratories, which provide specialized technical analysis and support to investigators regarding evidence.
PERSONNEL PROFILE

Occupational Classification

- **SAPS**
  - Male: 2,499 [54%]
  - Female: 2,171 [46%]
  - Total: 4,670 [67%]

- **PSA**
  - Male: 377 [11%]
  - Female: 360 [11%]
  - Total: 737 [11%]

- **I/F**
  - Male: 128 [3%]
  - Female: 99 [3%]
  - Total: 227 [3%]

- **C/M**
  - Male: 577 [19%]
  - Female: 577 [19%]
  - Total: 1,296 [19%]

- **A/M**
  - Male: 719 [20%]
  - Female: 577 [19%]
  - Total: 1,296 [19%]

Employment Equity

- **A/F** 31%
- **C/M** 6%
- **C/I** 5%
- **I/F** 10%
- **W/F** 8%
- **W/M** 2%
- **A/M** 36%

Employees with Disabilities: 57 [0.8%]
IMPROVEMENT IN EMPLOYMENT EQUITY
SR 1 – 7: 2010 vs 2012

June, 2010

- W/F: 10%
- A/M: 34%
- I/F: 10%
- I/M: 2%
- C/F: 6%
- C/M: 5%

June, 2012

- W/F: 8%
- A/M: 36%
- I/F: 1%
- I/M: 2%
- C/F: 6%
- C/M: 5%
- A/F: 34%
IMPROVEMENT IN EMPLOYMENT EQUITY
SR 8 – 12: 2010 vs 2012

June 2010
- W/F: 12%
- W/M: 33%
- A/M: 35%
- I/F: 1%
- I/M: 3%
- C/F: 2%
- C/M: 7%

June 2012
- W/F: 12%
- W/M: 30%
- A/M: 36%
- I/F: 1%
- I/M: 4%
- C/F: 2%
- C/M: 8%
## BUSINESS PROFILE

<table>
<thead>
<tr>
<th>Criminal Record Centres: 91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Points: 26</td>
</tr>
<tr>
<td>Crime Scene Laboratories: 69</td>
</tr>
<tr>
<td>Investigative Psychology Unit: 1 [National]</td>
</tr>
<tr>
<td>Explosives Units: 46</td>
</tr>
</tbody>
</table>

### Criminal Record & Crime Scene Management

<table>
<thead>
<tr>
<th>FORENSIC SCIENCE LABORATORIES</th>
<th>BALLISTICS</th>
<th>BIOLOGY</th>
<th>CHEMISTRY</th>
<th>SCIENTIFIC ANALYSIS</th>
<th>QUESTIONED DOCUMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastern Cape [Port Elizabeth]</td>
<td></td>
<td>[Evidence Recovery]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gauteng [Pretoria]</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>Kwazulu-Natal [Durban]</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Western Cape [Cape Town]</td>
<td></td>
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</tr>
</tbody>
</table>
CORE BUSINESS
[OVERVIEW OF RESPECTIVE BUSINESS UNITS / DISCIPLINES]
CRIMINAL RECORD & CRIME SCENE MANAGEMENT

- Updating, Maintenance & Archiving of Criminal History
- Providing of Criminal History & Related Information
- Administration of Wanted Persons Information
- Issuing of Police Clearance Certificates upon application
- National coordination of all information & issues iro operational forensic crime scene investigation activities
- Coordinating crime scene management & evidence handling team initiatives / developments
- Ensuring the monitoring, coordination of effective utilization and maintenance of AFIS [Automated Fingerprint Identification System] & CRIM [Criminal Information System]
- A 24-hour Service to Investigating Officers
The management & maintenance of a bomb disposal capacity in the SAPS & the control over explosives nationally

**Investigation** of Explosives related incidents, bomb threats & incidents and suspect articles & vehicles

**Prior Searching for & Safeguarding** of Premises & Vehicles against Explosive Devices

**Searching for & Collection of Evidence** at Explosive-related Scenes

**Maintenance of Bomb Data Centre & Computerized System** to assist with control of the Import, Export, Storage, Transport & Use of Explosives

**Investigation, Safekeeping, Transport & Disposal** of Explosives, Accessories for Explosives, Explosive Weaponry & Incendiary / Flammable Services

**Control of manufacture of Explosives** – Excl Licensed Factories & Research Facilities

**Handling & Disposal of Radioactive & Toxic** Substances
Advising, Informing & Assisting I/O, other Government Departments & Public on matters pertaining to Explosives

Evaluating standard of Explosive Detection Dogs & Handlers

Training Inspectors of Explosives appointed to Section 2 of Explosives Act

Compiling & Setting Standards & Specifications for Storage, Transportation & use of Explosives

Testing & Appointment of Learner Blasters & Magazine Masters

Licensing of Explosives Magazines & Vehicles Transporting Explosives and Handling Applications for Permits as per Section 32 of Arms & Ammunitions Act

Inspections to ensure adherence to requirements of Explosives Act
INVESTIGATIVE PSYCHOLOGY

To promote and implement the effective use of forensic psychology to the benefit of SAPS investigations:

- Provisioning of operational assistance & advice to investigators dealing with psychological motivated crimes
- Provisioning of expert evidence and courtroom support
- Liaising with experts in related fields for investigative purposes
- Facilitate training to SAPS employees in Investigative Psychology related matters
Firearm & Tool Mark Examination & Identification

Identification of Firearms & Ammunition

Restoration of Defaced / Removed Numbers on Metals [Etching]

Internal, External & Terminal Ballistics [Angels, distances, etc]

Research in the field of Firearm & Ammunition Technology

Reconstruction of Vehicle Accident Scenes

Examination of Wheels & Tyres

Assist in Vehicle Theft-related Examinations [Mechanical tests]

Examination of Filaments / Fibre

Reconstruction & Examination of Illegal Entries & Exits

Queries concerning Fields of Mechanical & Metallurgical Engineering in general
The examination of biological exhibit material to determine the identity & relationship thereof

**Evidence Recovery**: Body Fluids & Hair

**Preliminary Testing of Body Fluids**

**Blood Spatter** Pattern Analysis

**DNA Analysis & Comparison of DNA Profiles**

**Microscopic Comparison of Hair**

**2D & 3D Facial Reconstruction**

**Mummified Fingerprinting** [Decomposed Bodies]

Establishment of a **DNA Statistical Data Base & Criminal Intelligence Data Base** [Link individuals to crime scenes]
CHEMISTRY

Identification & Classification of **Drugs** controlled under Drugs & Drug Trafficking Act

Identification & Classification of **Medicines** scheduled under Medicines & Related Substances Act

Attendance of Drug and/or Medicine Related Crime Scenes

Identification of Substances involved in illicit (clandestine) synthesis & formulation of drugs and/or medicines

Generation of Drug **Intelligence Reports**

**Fire Origin and Cause** Determination & **Arson** Chemistry [Determination of Fuel Element]

**Poison Analysis**, **Toxicology** related Crime Scenes & **Alcohol** Analysis
The forensic investigation of cases concerning matters in electronic & electrical engineering, a variety of chemical analyses as well as science & physics

**Audio Enhancements** on Magnetic Tapes

**Voice Comparisons** & **Audio Authentication**

**Electrical & Electronic** Investigations

**Assisting in Arson** Related Investigations

**Polygraph** Investigations & Truth Verification

**Specialized Forensic Photography**

**Image** Processing & Analysis

**Analysis** of Rubber, Plastics, Polymers & Tape, Explosives, Explosive Devices & Explosive & Propellant Residues, Fibers, Ropes, Liquids, Paint, Glue, etc
Precious Metal Analyses

Analyses of Jewelry & Gemstones

Analyses of Gun Shot Residue

Analysis of Soils & Related Materials

Analysis of Cables & Wires

Comparison of Impressions & Prints

Analysis & Classification of Ivory

Examination of Glass

Analysis of Material pertaining to Environmental Pollution & Toxic Waste

Elemental Analysis & Profiling of all Materials
The forensic examination of documents and document-related exhibits

**Individualization** of Handwriting, Signatures, Typescript, Printed Matter & Stamped Impressions

Identification of **Forgeryes, Erasures & Additions**

**Examinations**: Writing Instruments, Ink, Paper & other media used in committing Criminal Offences

Identification or Elimination of Source & Output of **Mechanical / Electronic Imaging Devices** [Printers, Copy Machines, etc]

Establishment of Date, Source, History, Sequence of Preparation, Alterations or additions to **Documents & Relationships of Documents**

**Decipherment & Restoration** of Erasures, Deleted / Damaged Parts of Documents

Deciphering of **Obscured Writing** & Indentations
To identify missing and unidentified remains or bodies

- Facilitation of ante-mortem data collection of victims
- Assisting in recovery of remains & property of victims on disaster / crime scenes
- Facilitating the post-mortem process of remains of victims
- Ensuring an effective data reconciliation, reporting & liaison service
QUALITY MANAGEMENT

TQM Model
Customer Focus
Total Participation
Planning Process
Process Improvement
Process Management

Continuous Improvement

Assemble
Deploy
Manage
SOA
Model

WASTE

Quality Guarantee
To establish an enabling mechanism for improved business performance & the accreditation of the forensic services laboratories

- Provide strategic direction on Medical Surveillance, instruments, utilization and acquisitions
- Applying standards for information security, as prescribed by the Minimum Information Security Standards and Legislation relating to the protection of information.
- Provide technical management expertise in respect of Forensic Services equipment and instrumentation.
- Ensure the implementation of the Explosive Act, NEMA Act and the COIDA Act.

- Apply quality assurance and quality control to Forensic Databases
STRATEGIC DIRECTION & PERFORMANCE
**MANDATE:**
To support the investigation of crime through the processing of crime scenes, forensic evidence & maintenance of criminal Records

**STRATEGIC OBJECTIVE:** Contribute to the successful prosecution of crime, by investigating, gathering and analyzing evidence, thereby increasing the detection rate of priority crime

**PROVISION OF FORENSIC EVIDENCE TO IN THE MAIN FOCUS ON INVESTIGATION OF [BUT NOT LIMITED TO]:**

- Trio Crimes
- Crimes against Women & Children
- Serious & Violent Crimes
**STRATEGIC DIRECTION [REVISED] 2010 - 2014**

- **CRIME SCENES**
  - Concerted effort to improve collection & processing of evidence at crime scenes by crime scene experts

- **UPDATING RECORDS OF OFFENDERS CONVICTED**
  - Improve procedures for updating of records of offenders convicted of crime to reduce the incidents of bail being awarded to hardened offenders

- **STRATEGIC SHARING OF DATA BASES WITH OTHER ORGANS OF STATE**
  - Strengthen capacity of SAPS in identifying individuals involved in crime
STRATEGIC DIRECTION [REVISED]

2010 - 2014

EXPAND INFRASTRUCTURE

To support decentralization of services provided

ENHANCE TECHNOLOGICAL CAPACITY

Procure new technology or expanding existing technology to deal with expected increase in workload

IMPROVE SERVICE DELIVERY OF INDIVIDUAL EMPLOYEES

Improve training & competency certification, in accordance with international standards

ENHANCED FUNCTIONALITY OF EXISTING DATABASES

Proposed legislation enabling SAPS to take fingerprints of all arrestees

PROCESSING OF FORENSIC & FINGERPRINT EVIDENCE

Enhance processing of forensic and fingerprint evidence
<table>
<thead>
<tr>
<th>Strategic Priority</th>
<th>Performance Indicator</th>
<th>Audited / Actual Performance</th>
<th>Estimated Performance 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the procedures for updating the records of offenders</td>
<td>% of original previous conviction reports for formally charged individuals generated within 20 days</td>
<td>63.41% [750 844] previous conviction reports generated within 30 days</td>
<td>95% previous conviction reports generated within 20 calendar days</td>
</tr>
</tbody>
</table>
% Previous Conviction Reports generated

- **2009/10**: 63%
- **2010/11**: 76%
- **2011/12**: 80%
- **2012/13**: 95%

**Target** vs. **Performance**
## ANNUAL TARGETS & PERFORMANCE INDICATORS - 2012/13

**SUB-PROGRAM: FORENSIC SCIENCE LABORATORY**

<table>
<thead>
<tr>
<th>Strategic Priority</th>
<th>Performance Indicator</th>
<th>Audited / Actual Performance</th>
<th>Estimated Performance 2012/13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving the collection and processing of crime scene evidence</td>
<td>% of case exhibits [entries] processed by <strong>Forensic Services</strong> within <strong>28 working days</strong></td>
<td>86% [189 569] of case exhibits [entries] processed by <strong>forensic analysts</strong> within 35 days</td>
<td>92% of case exhibits [entries] processed by <strong>forensic services</strong> within <strong>28 working days</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>94% [297 955] of case exhibits [entries] processed by <strong>forensic analysts</strong> within 35 days</td>
<td></td>
</tr>
</tbody>
</table>
FORENSIC SCIENCE LABORATORY
ANNUAL PERFORMANCE

% Exhibits [Entries] Analyzed

- 2009/10: 86%
- 2010/11: 94%
- 2011/12: 77%
- 2012/13: 92%

Target: Green, Performance: Red
FSL PRODUCTION [ENTRIES RECEIVED]
2010/11 vs 2011/12

<table>
<thead>
<tr>
<th>Scientific Analysis</th>
<th>Questioned Documents</th>
<th>Chemistry</th>
<th>Biology</th>
<th>Ballistics</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11</td>
<td>4104</td>
<td>34309</td>
<td>54404</td>
<td>63627</td>
<td>87822</td>
</tr>
<tr>
<td>2011/12</td>
<td>4355</td>
<td>41417</td>
<td>62230</td>
<td>84331</td>
<td>128396</td>
</tr>
</tbody>
</table>
REDUCED BACKLOG
ANNUAL COMPARISON

<table>
<thead>
<tr>
<th>Date</th>
<th>Backlog</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>01 April 2009</td>
<td>59023</td>
<td>-19.25%</td>
</tr>
<tr>
<td>01 April 2010</td>
<td>47660</td>
<td>-66%</td>
</tr>
<tr>
<td>01 April 2011</td>
<td>16200</td>
<td>-30%</td>
</tr>
<tr>
<td>01 April 2012</td>
<td>11310</td>
<td></td>
</tr>
</tbody>
</table>
STRATEGIC PRIORITIES
2012/13
2012/13 KEY PERFORMANCE AREAS

The rendering of an effective & efficient CRIMINAL RECORD & CRIME SCENE MANAGEMENT SERVICE

The rendering of an effective & efficient FORENSIC SCIENCE SERVICE

The establishment of an enabling mechanism for improved business performance and ACCREDITATION of Forensic Science Laboratories

The rendering of an effective & efficient MANAGEMENT SUPPORT function in accordance with the organizational policing priorities

The provision of strategic direction within the Division
KEY DELIVERABLES:
CRIMINAL RECORD & CRIME SCENE MANAGEMENT

- Enhanced Collection & Processing of Evidence at Crime Scenes
- Fast-track Processing of Exhibits by Crime Scene Laboratories
- Enhanced Processing of Criminal History & Related Information
- Standardization
- Capacitate the Criminal Record Centre & Crime Scene Management
- Provide Advanced, Specialized Investigative Psychology Support
- Compliance with Provisions of the Explosives Act
KEY DELIVERABLES:
FORENSIC SCIENCE LABORATORY

- Processing of Case Exhibits
- Identification of Individuals involved in Crime [Hits]
- Capacitate Forensic Science Laboratories
- Standardization
- The establishment of a Victim identification Centre to assist in identifying missing and unidentified remains or bodies
### Key Deliverables: Quality Management

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment of forensic processes &amp; plans to ISO standards</td>
<td>[ISO9001, ISO17025, ISO14001 &amp; OHSAS 18001]</td>
</tr>
<tr>
<td>Establishment &amp; management of forensic databases for effective governance</td>
<td>[Including the acquisition, utilization &amp; replacement of equipment/instruments]</td>
</tr>
<tr>
<td>Ensuring the competence &amp; proficiency of analysts/examiners &amp; all employees in the Division</td>
<td></td>
</tr>
<tr>
<td>Accreditation</td>
<td></td>
</tr>
<tr>
<td>Forensic Awareness</td>
<td></td>
</tr>
</tbody>
</table>
REVAMP OF THE CRIMINAL JUSTICE SYSTEM

CRUCIAL FUNCTION within the CJS, as *everything that follows depends upon the outcome of their work*
1. To ensure a forensic human resource capacity, responsive to the needs of the criminal justice system

2. To advance the development of personnel in forensics

3. To provide support to the criminal investigation & judicial process through the detection, collection and use of quality forensic evidence

4. To ensure the provision of reliable and timely forensic processing, analysis & examinations to support the fairness and effectiveness of the Criminal Justice System

5. To establish an enabling mechanism for improved business performance and the accreditation of the forensic service laboratories

6. To create forensic awareness

7. To expand and decentralize the Forensic Service and Criminal Record and Crime Scene Management capacity

8. To facilitate the modernization of systems
COMPLETION AND OFFICIAL OPENING OF FORENSIC SCIENCE LABORATORY, PLATTEKLOOF IN THE WESTERN CAPE

REVISED STRUCTURE

- To enhance capacity
- Elevation of Section: Quality Management to a Component Level
- Centralized Support capacity
- Nodal Support Centers established to enhance service delivery in the respective environments

ACCREDITATION OF THE LABORATORY

- Capacitating Quality Management
- Study Tours to capture best practices

PROCUREMENT / DECOMISSIONING OF EQUIPMENT / INSTRUMENTATION

- Process established to curb unnecessary procurement of equipment / instrumentation
  - Expert Forum & Technical Capacity
SERVICE DELIVERY HIGHLIGHTS

ERADICATION OF CORRUPT PRACTICES WITHIN THE DIVISION

• Lifestyle Audits conducted by DPCI [Chemistry]

FORENSIC AWARENESS

• Processes & Structures established
• Interventions / Initiatives Implemented [Internal]

REDUCED BACKLOG

• Forensic Backlog
• Criminal Record & Crime Scene Management [Central Firearm Register]

FORENSIC SCIENCE LABORATORY

• Sustained technologies
• Eradication of backlog in respective disciplines
• Kick-started implementation process for Crime Index (CI)
  – To improve turn-around times for casework
CRIMINAL RECORD & CRIME SCENE MANAGEMENT

- Database for foreign nationals established
- Purification of Wanted Database done in co-operation with Detective Services
  - Comparisons between SAPS & Dept of Home Affairs databases
- Police Clearance Certificates
  - Help Desk established to ensure prompt service to other government departments
- IDECO Contract
  - Long term Contract reviewed and reduced from 15 years to 5 years
  - Contract customised to be self-funding & will generate revenue for the State
  - Government departments [without exception] to be serviced by SAPS at no cost
- Establishment of Provincial Evaluation Teams to assess & determine status of the Labs
- Evaluation Teams at SMS & MMS level to conduct monitoring and evaluation at LCRCs
- Visits by the Divisional Commissioner to LCRCs to determine challenges and status of LCRCs
THE VALUE OF DNA IN SUPPORTING THE INVESTIGATION OF CRIME
Durban Axe Murderer Phindile Ntshangwana
DNA linked the Durban Axe serial murderer to some of his previous crime scenes.
Awaiting Trial

Vredendal Serial Murderer
Suspect previously convicted for a rape-murder in 1998 and sentenced. He committed a further rape-murder in November 2011.
Suspect subsequently linked by DNA, interviewed by Investigative Psychology Unit and confessed to the recent murder.
Awaiting Trial

Springs Serial Murderer Lucky Shezi
3 Murder cases & 2 rape cases linked by DNA. Located in Westville prison by Investigative Psychology Unit.
Awaiting Trial
## INVESTIGATIVE PSYCHOLOGY & DNA PROFILING - PROMINENT CASES

<table>
<thead>
<tr>
<th>CASE</th>
<th>DETAIL</th>
<th>SENTENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Westonaria Serial Rapist</td>
<td>Suspect committed 13 rapes. Link established to other rape cases through DNA Database.</td>
<td>Suspect pleaded guilty to all charges - Sentence pending</td>
</tr>
<tr>
<td>Uria Molefe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hillbrow Serial Rapist</td>
<td>12 Cases at start of investigation. Suspect linked to other cases through DNA.</td>
<td>Awaiting trial</td>
</tr>
<tr>
<td>Mlungisi Mtshali</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muldersdrift Serial Rapist</td>
<td>Suspect linked through DNA database to rape of 10 year old girl. Found guilty on 6 counts of rape, 2 counts of theft &amp; 3 counts of robbery with aggravating circumstances.</td>
<td>2 Life Sentences [+ 95 years in total]</td>
</tr>
<tr>
<td>Shavani Phophi</td>
<td></td>
<td>Convicted: 06 June 2011</td>
</tr>
<tr>
<td>Khayelitsha Serial Rapist</td>
<td>Suspect linked to 21 rapes of minor children and murder of 1 child. He was arrested in September 2011 and has been conclusively linked by DNA to 10 of the cases to date.</td>
<td>Awaiting Trial</td>
</tr>
<tr>
<td>Soyisiso Athwel Nofemele</td>
<td></td>
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</tr>
</tbody>
</table>
CHALLENGES / INHIBITING FACTORS
INHIBITING FACTORS

STAFF TURN-OVER [Scarce Skills]

INFRASTRUCTURE / ACCOMMODATION
- Inadequate Drug Storage Facilities [Silverton]
  - Insufficient Storage Facilities
  - Insufficient Accommodation
  [Scattered / Shared / Leased, etc]
  - Un-finished DPW Projects

INADEQUATE SECURITY
• [CCTV, Access Control, etc]

System Capacity / Network Infrastructure

TMS & SCM
• ‘Red Tape’ / Delayed Processes

Multiple Stand-alone Systems
MILESTONES
FORECASTED MILESTONES

Accreditation

Implementation of Legislation:
- Explosives Act
- ‘DNA-Bill’

Test Firing of SAPS Firearms [Acquiring on IBIS]

Purification of Wanted Database

Expansion / De-centralization [Rural Areas]
“It is not the strongest of the species that survives, nor the most intelligent; It is the one that is most adaptable to change”

- Charles Darwin -