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Foreword to ENFSI Scenes of Crime Best Practice Manual

This Best Practice Manual has been produced as a collaborative project by the ENFSI Scene of Crime Working Group members. A sub group was formed in 2012 to draft this document based on the QCC template for Best Practice manuals. It has been distributed for comment and amendments to all Members and Associates of the Working Group. All comments have been taken into consideration and implemented as far as possible allowing for the wide potential user profile from across EU Crime Scene Organisations.

Consequently it can be seen that the manual is intended to reflect the working practices of both police based crime scene examiners, as well as those scene attending specialists based in forensic institutes. It is also intended to cover the full range of crime scene activities, from ‘minor’ volume to serious and complex crime scenes. To achieve this aim the manual is by necessity generic in nature and does not descend into detailed operational practice, this will be captured in the Standard Operating Procedures (SOPs) which will underpin this manual.

Finally this is a living document which will be regularly reviewed by the ENFSI Scene of Crime Working Group to ensure it continues to reflect current practice in this diverse and rapidly changing forensic science discipline. In addition all readers of the manual are actively encouraged to make any suggestions for amendments via the EUROPOL Platform for Experts Scene of Crime Portal, details of which can be obtained from the working group secretary (doris.faerber@bka.bund.de).

Keith Fryer,
Chair ENFSI Scene of Crime Working Group
December 2012
1. Aims
The purpose of this document is threefold:

a) To provide a framework of standards, principles and approaches for the detection, recording and recovery of forensic evidence at the crime scene in compliance with the requirement of ISO 17020, as interpreted for crime scene examination.

b) To provide a systematic approach for crime scene investigators to establish and maintain working practices in the field of crime scene examination that will deliver reliable records of the crime scene in overview and detail, maximise the quality of the recovery and collecting procedures, and produce robust evidence.

c) To encourage more consistent methodology and hence the production of more comparable results, so as to facilitate interchange of data between crime scene investigators and their partners in law enforcement.

2. Scope
2.2 The manual addresses the entire forensic process at the scene of crime as it is covered by the standard ISO/IEC 17020, from the arrival of the first officer at the crime scene to the point where the report from the crime scene is written. It encompasses the systems, procedures, personnel, equipment and accommodation requirements for the whole spectrum of the process.

The process has various stages of action including the following:

- Undertaking initial actions at the scene
- Developing a scene examination strategy
- Undertaking scene examination
- Interpreting scene findings and order further examination
- Reporting findings
2.2 The law enforcement framework and the legal systems within which scene examination takes place will determine the degree of direct control that an individual Scene of Crime Examiner (SCE) has over each stage of a process, but even where he/she is not directly involved in any particular stage he/she should still be in possession of comprehensive advice on best practice.

3. Establishing the customer requirement

3.1 The decision for a Scene of Crime Examiner to attend any given crime scene will be made in reference to the organisations scene attendance criteria and related policies. This may also include response to current local crime trends.

3.2 It is essential before starting any examination at a scene to understand, or agree with the customer, the purpose of the examination requested. The customer in this context can be defined as the person in charge of the investigation. This should be expressed in terms of what the customer is seeking to establish rather than a menu of tasks to be carried out, i.e. has an offence been committed and if so can those who have committed the offence be linked to the crime scene through the use of forensic evidence.

3.2 Protocols should be in place therefore to determine:

- what information is being requested in respect of scene examinations
- the customer’s priorities for the examination
- what other information is or may be available
- what constraints may exist (e.g. the need to preserve material for other purposes, cost)
- the intended end use of the information, i.e. intelligence or evidence

This may be defined in the forensic strategy for the investigation. All scene examinations should be carried out within the parameters of the forensic strategy.

\[1\text{ It is good practice to always recover material to an evidential standard as intelligence may become evidence in the future.}\]
3.3 It is also important to have in place communication protocols for feedback to, and from, the customer as his/her requirements may change before, during or as a result of scene examination. Issues that may affect the requirement or priorities include:

- changes in the direction of the investigation
- changes in the status of a scene, e.g. weather conditions
- changes in the status of suspects and victims
- changes in the urgency for information
- new and significant information coming to light
- the impact of results already reported
- contamination issues

4. Case assessment

4.1 Introduction

4.1.1 Whether examining the scene of an incident, recovering evidential material from a suspect, from a victim or dealing with material to be examined in the laboratory, the next step should be to make an assessment of what is technically possible and what is necessary in order to meet the customer’s requirement.

4.1.2 The general approach to case assessment will be the same regardless of the evidence types involved and an individual’s involvement in an investigation. This manual provides advice on the general aspects of case assessment but the detail which will apply to specific crime scene examinations will be defined within each organisation’s standard operating procedures (SOPs). For example, there will be differences in the resources committed to the examination of serious crime versus volume/minor crime. It is also likely that the range of samples taken will be less in the case of investigating a volume crime scene, perhaps focussing on fingerprint and DNA.

4.1.3 Any work carried out will be to meet a particular customer requirement. At each stage, however, it is important that the course of action selected is based on an assessment of information available at the time which of course may be subject to change.
4.2 Information requirements

4.2.1 The type and extent of the information that will be required to make a proper assessment of the crime scene will vary from case to case. However, as a minimum, the following information should be sourced:

- what is suspected or known to have occurred before, during and after the incident
- the persons involved
- the sequence and timings of events
- the nature and characteristics of the items that may have come into contact
- if there was any opportunity for transfer between the suspect(s) and victims(s) prior to the incident
- the persons responsible for and the sequence and timing of events in the recovery of items submitted for examination

This information may be obtained from several sources including the initial incident recording, the first responder, the investigating officer, the victim(s) and witnesses. However, it is important to bear in mind that information obtained from witnesses and other persons should be verified.

4.2.2 During the scene assessment consideration should also be given to the potential occurrence of contamination, that is, the undesirable introduction of substances or trace materials to exhibits which will be subject to forensic examination.

In order to assess contamination risks, it is necessary to establish whether:

- the actions of the first responder could have introduced trace materials to the crime scene
- there has been any opportunity for transfer between the suspect(s) and victim(s) and the scene, or items seized from the suspect(s) and victim(s) and the scene, since the incident
- were items recovered relating to the suspect(s), victim(s) or scenes, properly handled/packed in separate areas, by different people at different times?
- was there any opportunity for secondary transfer between suspect(s), victim(s) and/or scenes
4.2.3 Throughout the scene examination reassessment may be necessary as further information becomes available or circumstances change.

4.3 Health and safety

4.3.1 Health and safety considerations are extremely important in all aspects of the work and at all stages of the forensic process. The materials dealt with can be inherently hazardous and/or often found in hazardous circumstances but the exact facts are not always known or communicated to everybody in the process.

4.3.2 Consideration also needs to be given to the fact that materials may have to be handed back to others with no scientific training or particular facilities for handling the materials. Ultimately they may go back to members of the public or could be encountered by them in situations such as at court. There is an obligation on those involved in the forensic process to ensure the safety of anyone handling materials that are inherently hazardous or rendered hazardous by the scientific examinations performed.

4.3.3 In setting up any process consideration must be given to these issues and it is suggested that as a minimum the following should be carried out:

- an assessment of the hazards at the scene of incidents where crime scene examinations are to be carried out, for example at a fire scene the risk of building collapse, and how to minimise these
- an assessment of the risks involved in all the scientific processes carried out at the crime scene
- the documenting of any safe systems of work (or equivalent) required, the details of which should be provided in the Standard Operating Procedures
- the appropriate protective clothing and equipment for all processes involved in the examination of crime scenes is identified in the SOPs
- the mechanism for documenting and communicating the risks associated with any stage of the process and especially where materials may be brought into the public domain (e.g. courts)
4.4 Assessment at the scene

4.4.1 There is normally only one opportunity to carry out an examination and recover relevant material from the scene of an offence or incident. It is vitally important, therefore, that all the possible evidential avenues at the scene are considered before any practical work commences.

4.4.2 All relevant available information about the incident should be obtained before starting any examinations and an agreement should be reached with the customer as to what is required to be ascertained. All possible hypotheses, from all sources, should be considered as part of this process.

4.4.3 Based on the customer requirement and the potential scientific and technical processes appropriate for the crime scene examination the Scene of Crime Examiner should develop a scene examination strategy. The aim of the scene examination strategy should be to maximise recovery of forensic evidence and information from the scene within the parameters of the forensic strategy, existing policies and with due regard to cost effectiveness.

4.4.4 In developing the scene examination plan consideration should be given for other expert/specialists to attend the scene in support of the investigation or in compliance with organisational policy. It is best if the scene can be preserved until all the experts are available. Where this is not possible or practicable, each scene examiner should ensure that adequate records are made of the scene prior to any disturbance of the scene on their part and during their subsequent examinations.
5. Undertaking the scene examination
This section of the manual describes the recommended approaches for the preservation, recording and recovery of items and other material during crime scene examination. It must be remembered, however, that in most instances the scene will be a source of material from a number of evidential areas. It is essential, therefore, for full consultation between all interested parties to be undertaken before any work is commenced if the maximum information is to be extracted from the scene.

5.1 Scene preservation
5.1.1 All scenes, indoor, outdoor or vehicles, should be protected at the earliest opportunity to reduce the risk of the loss of any material or post-incident movement or contamination.

5.1.2 Particular emphasis is given in this manual to the procedures for the preservation of evidence and the avoidance of contamination. Advice is given to assist individuals to manage the specific risks associated with crime scene examinations.

5.1.3 The guidance is directed towards ensuring that nothing is done by anybody attending the scene of an incident, or by others responsible for taking samples from the victim(s) or suspect(s), that may lead to the loss, degradation or contamination of forensic evidence.

5.1.4 Preservation of the crime scene is paramount and must be considered from the moment an incident is reported. The first contact officer and first responder have a responsibility to ensure the scene is preserved to the greatest possible extent to give the Scene of Crime Examiner(s) the maximum opportunity for forensic recovery.
5.1.5 All personnel attending the crime scene have a responsibility to ensure their actions do not compromise the recovery of forensic evidence. Scene preservation measures should include, as a minimum:

- Removal of non-essential personnel from the scene and subsequent controlled entry by means of a scene log
- Cordons around the crime scene and other areas with potential forensic yield
- Establishing and using a Common Approach Path
- Wearing appropriate barrier (protective) clothing

5.1.6 Anti-contamination precautions should be based on the assumption that any trace evidence types may be subject to contamination and therefore should encompass all potential risks.

5.1.7 Measures are required to reduce the possibility of cross contamination prior to the safe packaging of the materials at the crime scene. The minimum preventative measures include:

- the use of the correct protective clothing and disposable equipment which should be changed when necessary during an examination
- equipment should be decontaminated after use
- the effective management of the collection of different items in the same case for which connections are being sought
- the use of different personnel for collecting material from the victim(s) and each suspect
- when suspects are transported or interviewed ensure different vehicles, rooms and officers are used
- having checks in place to ensure that recovered items, or materials obtained from them, cannot be mixed up with or transposed with other items or materials
- the preventative measures required to avoid cross-contamination due to local environmental conditions
- the principle that after material has been recovered, packaged and sealed it must only be re-opened under controlled conditions and preferably not before laboratory examination
5.1.8 No-one should attend or examine multiple scenes unless this is absolutely unavoidable and must then have thoroughly decontaminated themselves (e.g. by showering and changing their clothing).

5.2 Searching the crime scene

5.2.1 Prior to searching the scene consideration should be given to using non-invasive techniques to gain an initial record of the scene. The extent and level of detail of this recording may be limited in the first instance however it will ensure that a record of the scene prior to any disturbance is captured. Further more detailed recording methods can be used once the scene has been searched and indeed will be continued throughout the examination.

5.2.2 Scenes should be searched systematically and thoroughly for the relevant materials, targeting and prioritising areas which, in the context of what has been alleged, are most likely to yield significant material of evidential value.

5.2.3 Consideration should be given to using a range of light sources to locate potential evidence which cannot be visualised using white light sources. Scene of Crime Examiners using this type of equipment must be fully trained in its use and ensure appropriate health and safety measures are taken to protect themselves and others present at the crime scene.

5.2.4 Items/areas of interest should be noted to ensure all potential evidence is subsequently recorded and recovered. The use of numbered markers should also be considered to assist with the recording of the scene.

5.2.5 The parameters of the search should be agreed and documented.

5.2.6 Additional searches may be carried out by specialists, for example dogs, specialist search teams. Such searches should be co-ordinated via the Crime Scene Manager to prevent contamination and loss of evidence.

5.2.7 The scene may need to be searched again if new information is received which changes the course of the investigation. It is therefore important to preserve the scene as long as possible for such eventualities.
5.3 Recording the crime scene

5.3.1 The crime scene should be accurately recorded prior to evidence recovery. The exception to this would be if there was a risk of losing evidence, e.g. through inclement weather, whilst this process was being carried out. However, in this instance and if practicable, markers should be used to indicate where evidence has been recovered from.

5.3.2 The aim of recording the scene is to be able to clearly show the scene and any items within, for the following purposes:
   - briefing authorised parties
   - evidential purposes
   - recording of any significant features of the scene
   - prior to examination and subsequent recovery of items
   - recording of any significant items.

5.3.3 The methods used to record the crime scene can include:
   - Still photography
   - Video/digital recording
   - 360° imaging
   - Plan drawing
   - Taking of notes
   - Any other suitable means: photogrammetry, lasergrammetry, etc.

5.3.4 The recording should be carried out in a methodical manner to ensure all areas are captured thoroughly and should be continued throughout the examination as necessary.
5.4 Recovery of forensic evidence from the crime scene

5.4.1 Recovered material should be handled as little as possible and packaged at the earliest opportunity. Control/reference materials must be kept strictly separate from any surfaces, items, clothing or people with whom it might subsequently be significant to establish contact.

5.4.2 Recovery of exhibits and sampling will be case specific and reference should be made to organisational SOPs to ensure that the appropriate samples are taken and are truly representative of the material available.

5.4.3 Consideration should be given to the following general points in the advice:

- identifying the right samples to take and how to ensure they are representative
- the minimum amount of material required to obtain meaningful results for interpretative purposes
- the amount and number of separate control samples required
- guidance on methods for sampling that aid/assure the prevention of cross contamination
- the need to preserve material for subsequent analysis by others (prosecution or defence)

5.5 Preservation and packaging

5.5.1 The material for recovery needs to be protected from interference or alteration and from the possibility of subsequent degradation and contamination. Consideration of health and safety issues must also be made. Suitable containment is normally achieved through the selection and correct use of approved packaging material. Packaging materials must be appropriate for the given applications and compliant with your organisations SOPs.
5.5.2 Precautions must be taken to ensure the integrity of evidence, reduce the risk of contamination and minimize degradation. These will include:

- sealing containers such that any tampering will reveal evidence of such
- sealing containers such that the prevention of accidental loss or contamination is ensured
- providing adequate protection to containers during transportation and storage to prevent damage and hence subsequent loss or contamination of samples
- checking items at all stages of transfer throughout the chain of custody to ensure that their integrity has not been compromised

5.5.3 All items should be packaged and sealed as soon as they are taken, using bags or containers of an appropriate size to avoid the packaging being damaged or the seals being broken.

5.5.4 Packages should be sealed in such as way that all gaps are covered and secure, e.g. folded bags should be sealed with adhesive tape along all open edges and not by stapling.

5.5.5 Once sealed, packages should not be re-opened unless within a quality controlled environment such as a laboratory to avoid contamination. If under exceptional circumstances they are re-opened then comprehensive documentation detailing the conditions under which they are opened must be made.

5.6 Labelling and documentation

5.6.1 For legal purposes, in order to maintain the chain of custody, it is essential to be able to prove who has handled which item and what he/she did with it. The organisation must have SOPs to describe how items and evidential material recovered from an incident should be logged and labelled at the time of seizure, where appropriate.
5.6.2 The crime scene examination must be comprehensively documented. Documentation may include hand written notes, voice recorded notes, taking information directly onto computer, sketches and diagrams, photographs, video recordings, etc.

5.6.3 A contemporaneous record should be made, at the time of seizure of items from the scene describing the exact locations from where the items were recovered. It is also helpful to mark this location on a sketch/plan of the scene or person.

5.6.4 Labels should be attached to each package at the time of packaging. Whilst the legal status and use of labels can vary, the minimum details that should be recorded and be directly and unequivocally attributed to each package are:

- a unique identifying mark
- the name of the person and organisation (e.g. police force, pathology department, etc) responsible for collecting and packaging the material
- a concise and accurate description of the material
- the location or person from where or from whom the material has been seized
- the date and time the material was seized
- protective clothing worn during the recovery and packaging process

5.7 Transport
5.7.1 SOPs should include reference to transportation arrangements including reference to any constraints governing the movement of materials of interest. These should include:

- local postal restrictions
- regulations limiting the movement of ‘dangerous’ materials (e.g. flammable materials, compressed gases, pathogenic organisms, etc.)
- the need for import/export licences when moving materials (e.g. drugs) across national frontiers
5.7.2 The method of transport should be chosen to ensure that the integrity and state of preservation of the materials is maintained. The mechanisms for maintaining full records of all involved in the transportation should also be covered, so that the chain of custody is complete.

5.8 Review scene findings and order further examinations

5.8.1 Following the examination of a crime scene where there is a large number of forensic exhibits, the scientific support co-ordinator or crime scene manager, will collate the exhibits and identify the examinations that should be carried out. A conference between the senior investigator, scientific support co-ordinator, crime scene manager, exhibits officer and forensic scientist will take place to determine if any further examinations are required. A formal record of the decisions will be made.

5.8.2 Items recovered from the crime scene that require further detailed forensic examination should be identified and an evidence recovery plan developed for each item.

5.8.3 Where there is more than one item and/or evidence type involved in the examination of a case then priorities and sequences for the examinations will need to be considered.

5.8.4 Before commencing any examinations within a case the following matters should be considered:

- the urgency and priority of the customer’s need for specific aspects of the information
- the other types of forensic examination which may have to be carried out and whether examination for a particular evidence type or by a given examination technique will compromise subsequent examinations
- which evidential types or items have the potential to provide the most information in response to the various propositions and alternatives
- the perishable nature of any material that may be present
- health and safety and/or security considerations
5.8.5 Considerations for further examinations should also include:

- the availability of items for examination
- the amount of material, within the items, available for examination
- the number and nature of the different forensic examination techniques that will be usable, dependent on the above
- the potential value of the information available from each technique and which will provide the most information in response to the various hypotheses

5.8.6 To minimise the possibilities of contamination it is preferable to examine all items relating to one individual or scene before commencing with items relating to other people or scenes.

5.9 Reporting findings

The Scene of Crime Examiners’ findings are normally provided in the first instance in written form, as a report or statement of witness, for use by the investigator and/or the prosecutor/court. Oral evidence, in addition, may be required subsequently. This may be restricted to factual observations and findings or if the legal framework permits may also include interpretation and opinion.

5.9.1 Written Presentation of Findings

5.9.1.1 The purpose of the report/statement is to provide the reader with all the relevant information in a clear, concise, structured and unambiguous manner, to make the task of assimilating the information as easy as possible.
5.9.1.2 Whilst formal advice is available\(^2\) on the format of reports and statements the scope for consistency may be limited by the requirements of the criminal justice system for the country of jurisdiction. In general, however, the following should be included:

- the unique case identifier
- the name and address of the organisation where the witness is employed
- the identity of the witness, and evidence of his/her status and qualifications where this is a requirement
- the signature of the author
- the date on which the report/statement of witness was signed
- the date of attendance at the crime scene that has been examined
- a list of all recovered material
- details of all relevant information
- the purpose of the examination, as agreed with the customer
- details of the examinations carried out
- the results of the examination
- comment covering any item or part of the crime scene that was not examined, and the reasons for this
- details of any material forwarded for further examination, including reference to the chain of evidence
- finally, where the criminal justice system allows, conclusions and interpretation by the crime scene examiners including justification for the conclusions.

5.9.1.3 Subjective or speculative information/observations should be avoided wherever possible

5.9.1.4 The use of a tabular format can be a helpful aid in presenting the information clearly.

\(^2\) General criteria for the operation of various types of bodies performing inspection, section 7.4 (Reporting the results), ISO/IEC 17020, International Organisation for Standardisation, 2012
IAF/ILAC A4, Guidance on the application of ISO/IEC 17020, section 7.4 (Reporting the Results), Inter Laboratory Accreditation Cooperation, 2004
5.9.2 Oral Presentation of Findings

5.9.2.1 Persons expected to present oral testimony should have received instruction and/or mentoring in the procedural requirements of the particular criminal justice system in which the evidence is to be presented.

5.9.2.2 Information which is supportable by the examinations carried out should be presented, unless specifically directed by the court. All information that has been received should be available to the court if required.

5.9.2.3 Witnesses should resist responding to questions that take them outside their field of expertise unless specifically directed by the court, and, even then, a declaration as to the limitations of their expertise should be made.
6. Quality Assurance

6.1 Introduction
Given the precise and critical nature of forensic examinations, it is highly desirable that it can be demonstrated that there are effective quality control and quality assurance measures in place. The ENFSI Members wish to promote consistent and reliable evidence throughout the whole forensic process, from scene of incident to court. As one part of this aim, it is the policy of the ENFSI Members that all Member organisations should have achieved, or should be taking steps towards, ISO 17020 compliant accreditation for their crime scene examination activities. In determining this policy, the ENFSI Members accept that progress will be slower in some countries than in others for a number of reasons, including differences in national accreditation systems and differences in the operation of legal systems. Where ISO 17020 compliant accreditation cannot be achieved, the ENFSI Members encourage the use of other quality management standards with broadly equivalent objectives.

6.2 Purpose
The purpose of this section of the Manual is to provide advice to Member organisations that will assist them to put into place a quality system that will provide a systematic approach to crime scene examinations so as to establish and maintain working practices that will provide reliable and fit for purpose results. The approach should also ensure that the quality of the derived information is maximised and therefore provide robust evidence. Adherence to the guidelines should also provide a greater degree of consistency across organisations which will, in turn, facilitate the interchange of data and the construction of meaningful databases.

6.3 Personnel
People are likely to be the most important resource in any forensic application and in order to allow staff to work effectively and efficiently everybody concerned in the process must understand the nature of the tasks and the human qualities required to perform them. Information is provided, therefore, in this manual that defines the key roles, the responsibilities and also the competencies required by these post holders.
Due to variations in the size of different organisations and variability within different operating systems, absolute standardisation of staffing cannot be achieved. It is also accepted that an individual may be responsible for more than one of the defined roles and this manual states where this is the case.

6.3.1 Roles and responsibilities

The key roles recognised for the examination of crime scenes are:

- **Scene of Crime Examiner** – an individual whose primary role is the initial assessment at a crime scene and the subsequent collection of material for detailed scientific examination.

- **Crime Scene Manager** – The central role of the Crime Scene Manager is to supervise the scene examination in a way that facilitates the input of specialists so that the maximum evidence and information is extracted from the scene. The Crime Scene Manager will be directly responsible to the Senior Investigator and the Scientific Support Co-ordinator for the management of the crime scene.

- **First Officer Responding** - The first officer attending is responsible for all initial measures at the scene of a crime. This concerns police practices like initial general assistance, first aid, calling for necessary assistance, aversion and termination of dangerous attacks, and criminal procedures like protecting the crime scene area and avoid contamination.

Other roles are involved in the examination of crime scenes include:

- Crime Scene Co-ordinator
- Reporting Scientist
- SIO
- Forensic Medical Examiner
- Plan Drawer
- Firearms/ballistics expert
- Exhibits Officer
- Coroner’s Officer

An overview of these roles is provided in Appendix 2 however the qualifications and required competencies are only defined for the main roles detailed above.
6.3.2 Competence requirements

ENFSI wishes to promote consistent and reliable scientific evidence throughout the whole forensic process from the scene of crime to court. An aim of this is the policy of ENFSI members must have a formal and documented system for the assessment of competence of their forensic practitioners and must accept and abide by the ENFSI Code of Conduct (reference number BRD-GEN-003). The competence assurance system shall be an integral part of the quality system according to ISO/IEC 17020 and/or ISO/IEC 17025.

The qualifications, competencies and experience that individuals require to carry out the various aspects of crime scene examination will depend on the intellectual and practical demands of the various aspects of the work. This manual identifies the standards of competence required for individuals to undertake the particular aspects of work, the training required and the assessments that will be applied.

6.3.2.1 Qualifications and experience

The practitioner should be educated to an appropriate standard and successfully completed recognised training as defined by his/her own organisation. The ENFSI Scene of Crime Working Group (Soc WG) is currently working towards developing an agreed European Scene of Crime Examiner curriculum.

6.3.2.2 Competencies

Performance Based Standards for Forensic Science Practitioners have been developed by the ENFSI QCC Competence Assurance Project (CAP) Group for use by all ENFSI forensic science practitioners. (Reference QCC-CAP-003).

The standards are presented in a generic format. They cover the ‘forensic’ process from the actions of the first officer attending the scene, through scene examination, examination in the laboratory, interpretation and reporting to presenting evidence in court. They are not prescriptive.
They recognise that there may be more than one acceptable way of carrying out a task. The standards are written in terms of outcomes. They give the desired outcome of carrying out a task. In other words they describe WHAT a competent practitioner should be able to achieve but they do not describe HOW that outcome is achieved. In addition they indicate the knowledge and understanding that a forensic practitioner needs to achieve competent performance.

The standards relevant to crime scene examination are contained within the following activities:

- Activity A: Undertake initial actions at the scene of the incident
- Activity B: Develop a scene investigation strategy
- Activity C: Undertake the scene investigation
- Activity D: Interpret scene findings and order further examination
- Activity I: Report Findings

The following experience and areas of competence would be expected as the minimum standard for the key roles defined above, in crime scene examination:

**First officer attending** – knowledge of procedures (including health and safety requirements) applicable to undertaking initial actions at the scene of an incident. This includes ensuring control is taken of the scene so that it is protected for those individuals who carry out detailed examination of the scene.

- Activity A: Undertake initial actions at the scene of the incident
  - Standard A1: Undertake initial preservation and control actions at the scene

**Scene of Crime Examiner** – knowledge of the theories, techniques and procedures (including health and safety requirements) applicable are:

- Activity A: Undertake initial actions at the scene of the incident
  - Standard A1: Undertake initial preservation and control actions at the scene
• Activity B: Develop a scene investigation strategy
  o Standard B1: Determine the requirements of the investigation
  o Standard B2: Make assessment of the scene and determine requirements

NB. The development of a scene examination strategy for complex incidents will become the responsibility of the Crime Scene Manager. The Scene of Crime Examiner should only undertake this activity within the parameters of their knowledge, training, experience and local requirements.

• Activity C: Undertake the scene investigation
  o Standard C1: Establish and preserve control of the scene
  o Standard C2: Prepare to examine the scene
  o Standard C3: Examine the scene
  o Standard C4: Collect potential evidence material
  o Standard C5: Pack items and samples

• Activity D: Interpret scene findings and order further examination
  o Standard D1: Analyse the likely sequence of events
  o Standard D2: Decide on which items and samples are to be examined further
  o Standard D3: Transfer the items to the designated locations
  o Standard D4: Store items and samples

• Activity I: Report Findings
  o Standard I1: Produce report
  o Standard I2: Participate in consultation before trial.
  o Standard I3: Present oral evidence to courts and inquiries
**Crime Scene Manager** – knowledge of the theories, techniques and procedures (including health and safety requirements) applicable to Activities A – D & I as above. As this role includes the management and supervision of staff it is expected that they will demonstrate competence in these areas.

6.3.2.3 Training and Assessment
Organisations should have written standards of competence for each role; a documented training programme; and processes for assessing that trainees have achieved the required level of competence. Refer to ENSFI Guidance on the Assessment of Competence for Forensic Practitioners QCC-CAP-001.

Scene of Crime Examiners need to maintain and have evidence that demonstrates on-going competence. It is generally agreed that practitioners should be carrying out scene examinations on a regular basis. It is difficult to specify the number and type of scene examinations that should be undertaken.

All training and the outcome of the assessments should be documented on the individual’s training records.

A trainee should be recognised as competent only when he or she has been assessed as meeting the defined standards of performance and only then be permitted to undertake scene examination under the minimum of supervision, in the relevant area.

6.3.2.4 Maintenance and Reassessment of Competence
Individuals will be required to demonstrate that they have maintained their competence. There should be a system of ongoing assessment. A complete reassessment should be performed at regular intervals in accordance with the local quality management systems procedures.

Guidance should be provided on the assessment and the sources of evidence required for the ongoing assessment of competence(s) in any particular work area for each of the role types involved.
Evidence to maintain competence should reflect recent work and actual knowledge/experience.

Examples of these sources of evidence are:

- successful involvement in a specified number of examinations of that type in the previous period of time
- documentary evidence of examinations reproduced by other ‘competent’ members of staff
- peer review (including re-examination of exhibits)
- performance in competence tests
- assessment through internal and external audits
- feedback including customer and defence examinations
- evidence of registration by an external accreditation body on competence assessment
- review of a portfolio of recent and actual experience (court performance, publications, training, projects, workshops, seminars, conferences, etc.)
- validation projects

6.3.2.5 Reassessment due to change of circumstances

If an individual cannot produce records to show that he/she has actively carried out work in the relevant area within a period of time, the competency of this individual should be deemed to have lapsed. This should also be deemed the case if the assessor is not satisfied with the quality of the records produced.

In such instances a development plan should be put in place to facilitate any required refresher/new learning to enable the individual to re-attain a competent standard.
Before individuals can carry out casework requiring the competency, they must demonstrate that they have regained a competent standard. For this reassessment a procedure should have been developed.

- practical tests
- written and oral examinations
- role exercises, e.g. simulated court situations
- scene examinations conducted under close supervision
- a portfolio of previous work

6.4 Proficiency testing

ISO 17020 does not include any requirement for proficiency testing however, it is best practice that regular proficiency and competency tests are carried out, and it is an ENFSI requirement.

6.5 Documentation

6.5.1 The organisation should have a documented Quality Management System for controlling all systems, processes and methods used in the examination of crime scenes.

6.5.2 The QMS should include requirements for the following minimum documentation relating to crime scene examination to be maintained:

- Casework administration procedures:
  - details of systems for the safe storage of casework material
  - records of all transfers of possession of casework material, for proof of the chain of evidence
  - records of all relevant communications
  - details and results of all examinations carried out
  - original crime scene examination notes and statements/reports
  - records of case file review
• Equipment:
  o inventories of equipment held and those responsible for them
  o records of commissioning, suitability for purpose and validation records
  o maintenance schedules and records of breakdowns, work carried out etc
  o calibration records

• Materials and chemicals:
  o records of acceptance testing

• Protocols and Standard Operating Procedures:
  o for the examinations and processes used
  o for calibration and quality control
  o for recording and presenting results

• Training:
  o competence standards, training programmes and assessment protocols
  o training packages
  o training/competence records for individuals

6.6 Equipment

6.6.1 The equipment inventory should record the manufacturer, model, serial number, date of acquisition, date placed in service and the current location for each piece of equipment.

6.6.2 The manufacturer’s operating manual for each item of equipment should be readily available at the work place together with the repair and maintenance documents.

6.6.3 The performance of each item of equipment should be checked in accordance with the requirements of the examination protocol and records kept.
6.6.4 Only appropriate and properly operating equipment should be employed in crime scene examination, and then only within the limits of the performance checks carried out.

6.7 Materials and reagents
6.7.1 All materials and reagents used for crime scene examination should be of a suitable quality and have been demonstrated as fit for purpose.

6.7.2 Reagents should be shown to be functioning correctly with a reference sample prior to their use in casework. The results of these tests should be recorded.

6.7.3 All reagents, whether produced internally or obtained from external suppliers, should be labelled with their identity, concentration (if appropriate), date of preparation or receipt, date of opening, date of expiry and any special storage or safety requirements necessary to comply with organisational policy or other regulations.

6.8 Accommodation
6.8.1 The facilities used for the storage or further examination of items recovered from the crime scene should be subject to an appropriate quality management system, such as ISO 17025.

6.8.2 Accommodation should ensure:

- segregation between incompatible activities in order to prevent cross contamination
- details of any access control measures that are necessary, both from the point of view of anti-contamination control and security
- recommendations on the measures required to ensure good housekeeping, detailing any special requirements as appropriate
6.9 Validation

6.9.1 Validation is the confirmation by examination and the provision of effective evidence that the particular requirements for a specific intended use are fulfilled.

6.9.2 For established technical procedures records of the validation documents should be retained and be available for inspection.

6.9.3 The scene of crime examiner should use only validated techniques and procedures for the examination of crime scenes.

6.9.4 Validation requires as a minimum that:

- there is an agreed requirement for the technique or procedure
- the critical aspects of the technique or procedure have been identified and the limitations defined
- the methods, materials and equipment used have been demonstrated to be fit for purpose, robust and reliable in meeting the requirement
- there are appropriate quality control and quality assurance procedures in place for monitoring performance
- the technique or procedure is fully documented
- the results obtained are reliable and reproducible
- the technique or procedure has been subjected to independent assessment, and where novel, preferably also peer review
- the individuals using the technique or procedure have been trained and have demonstrated that they are competent

6.9.5 Where the techniques or procedures adopted have been validated elsewhere, the organisation is required to carry out a verification exercise to demonstrate that it can achieve the same quality of results in its own environment.
6.10 Case review
It is important in certain aspects of crime scene examinations for protocols for case review to be established. These may include:

- Statements/reports should be reviewed by line manager or competent individual to ensure they comply with organisational requirements and legal frameworks
- Review (walkthrough) of a major crime scene by a competent individual

A written record of these checks must be made on the case notes, bearing the signatures of both the Scene of Crime Examiner and the reviewer/peer.

6.11 Management review
A fundamental aim of management review is that the customer’s requirements have been adequately addressed and that a value for money service has been provided.

Examples of management review could include:

- Key Performance Indicators
- Customer satisfaction
- Data on detections

6.12 Audit
6.12.1 Audits covering all aspects of crime scene examination (operational, research and development, training etc) should be conducted on a regular and planned basis by an appropriate individual in conjunction with the QA Manager.

6.12.2 Where scene examinations are reviewed in audits, they should normally be chosen randomly.

6.12.3 Records of each audit must be kept. These must include the date of the audit, the name of the auditor, the findings and any corrective actions necessary.

6.12.4 All corrective actions must be designated to a nominated, appropriate individual for completion by an agreed specified date. The QA Manager should ensure that the action is completed as agreed.
7. Appendix 1 Definitions and Terminology

In this document, the following definitions are used:

**Audit:** A systematic, independent and documented process for obtaining audit evidence and evaluating it objectively to determine the extent to which audit criteria are fulfilled. [ISO/IEC 9000:2005]

**Calibration:** Operation that, under specified conditions, in first steps, establishes a relation between the quantity values with measurement uncertainties provided be measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication. [International Vocabulary of Basic and General Terms Metrology : 1993 6-11 and ISO/IEC Guide 99:2007]

**Competence:** The ability to perform the task of a certain role by virtue of their training and/or experience and demonstrated knowledge, skills and abilities.

**Competence Assessment:** A formal assessment to check whether or not an individual meets the standards of performance. [QCC-CAP-006]

**Contamination:** Contamination is the undesirable introduction of substances or trace materials to exhibits which will be subject to forensic examination.

**Crime scene:** The term "crime scene" is used to identify a scene of incident prior to establishing whether a criminal or illegal action has taken place or not. The crime scene is not solely restricted to the location of the incident, but also includes areas where relevant acts were carried out before or after the crime. Suspects and victims who are subject to an examination for the recovery of forensic and/or medical evidence can also be considered to be crime scenes.

**Customer:** The customer is the person(s) requiring the crime scene examination. Whilst ultimately this is the Criminal Justice Service/Public Prosecutor and the public for all practical purposes the customer is the senior investigating officer responsible for the outcome of the investigation to which the crime scene is related.
Chain of custody: Documenting and recording how items recovered from crime scenes are preserved, transported and examined throughout the forensic process.

Documents, records: As a rule, documents and records can be stored in either hard copy or electronic form (on PC). For electronic storage, regulations must be in place governing access, authorisation and saving.

Evidence: Evidence is anything which may prove or disprove an assumption to be true, for example an exhibit or the lack of expected findings.

Exhibit: An exhibit is an item or sample recovered as part of an investigation. This includes everything recovered from a crime scene including swabs, whole objects, debris, etc and derived items like casts of footprints, finger mark lifts, etc.

First Responder: The first officer arriving at the crime scene. This person is responsible for all immediate action taken at the scene of the crime. His responsibility ends when the officer responsible for the crime scene takes over official responsibility for the crime scene examination. Also known as ‘first intervener’.

First Intervener: See First Responder

Forensic process: Forensic process is the gathering, evaluation and assessment of all types of evidence using scientific procedures as well as the location, documentation and preservation of evidence.

Forensic Strategy: Developed by the Senior Investigator this forms the foundation for the application of forensic science to the investigation and will inform scene examination plans/strategies.

Investigator: A person, however named, trained to perform crime scene examinations and/or investigations. Other names used for this function are Scene of Crime Officer (SOCO), Crime Scene investigator, Crime Scene Examiner, etc.

Management/Case Review: – a review of the case file and report, in each case, to ensure that the customer’s needs have been properly addressed, compliance with laboratory policy and, for the report, editorial correctness.
Quality Assurance: Part of quality management focused on providing confidence that quality requirements will be fulfilled [ISO/IEC 9000:2005].

Quality Control: Part of quality management focused on fulfilling quality requirements [ISO/IEC 9000:2005].

Quality System: This term is used to refer to the documented system used for managing the technical aspects, quality, administrative procedures, etc of an organisation.

Scene of Crime Examiner (SCE): A person competent to perform crime scene examinations. Other names used for this function include Scene of Crime Officer (SOCO), Crime Scene investigator, Crime Scene Examiner, etc.

Scene Examination Plan/Strategies: Devised by the SCE or Crime Scene Manager to meet the requirements of the Forensic Strategy and to maximise the forensic opportunities.

Trace Evidence/Material: In the context of forensic examinations evidence types such as fibres, hairs, glass, paint, soil, etc.

Validation: Confirmation by examination and provision of objective evidence that the particular requirement for a specific intended use is fulfilled [ISO 8402: 1994 -2.18].

Verification: Where the techniques or procedures adopted have been validated elsewhere, the organisation is required to carry out a verification exercise to demonstrate that it can achieve the same quality of results in its own environment.
8. Appendix 2 Roles and Responsibilities

In a coordinated approach of the crime scene, several specialists are attending the crime scene, each with their specific role and responsibility. The exact names, roles and responsibilities may vary per country. It may also be possible for the same person to carry out more than one role at the same time.

**First officer attending**

The action of the first officer attending the crime scene is crucial to its subsequent successful examination and the recovery of all available evidence. It is therefore essential that all officers are aware of the importance of scene preservation and the actions they need to take to ensure that any subsequent scene examinations are not compromised.

The first officer attending is responsible for all initial measures at the scene of a crime.

A summary of these practices is given in the table below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess the scene</td>
<td>• Primary function: Preservation of life</td>
</tr>
<tr>
<td></td>
<td>• Considering and recording contamination risks</td>
</tr>
<tr>
<td></td>
<td>• Taking notes of the names of all persons at the scene</td>
</tr>
<tr>
<td>Protect the scene</td>
<td>• Identifying the extent of the scene and setting cordons</td>
</tr>
<tr>
<td></td>
<td>• Preventing access by any other persons</td>
</tr>
<tr>
<td></td>
<td>• Protecting the scene if there is a likelihood of a loss or damage to</td>
</tr>
<tr>
<td></td>
<td>evidence by adverse weather, etc.</td>
</tr>
<tr>
<td>Communicate the situation at the</td>
<td>• Inform control of the full situation</td>
</tr>
<tr>
<td>scene</td>
<td>• Request specialist support and a supervisor</td>
</tr>
<tr>
<td>Commence log of scene</td>
<td>• Recording of all persons, police and other agencies from outside the</td>
</tr>
<tr>
<td></td>
<td>cordon, together with vehicles attending the scene. Date and time of</td>
</tr>
<tr>
<td></td>
<td>arrival and departure, and reason for visit are recorded as well.</td>
</tr>
<tr>
<td></td>
<td>• Recording of any initial actions taken to preserve the integrity of</td>
</tr>
<tr>
<td></td>
<td>evidence.</td>
</tr>
</tbody>
</table>


First police supervisor

The first police supervisor is usually the highest-ranking officer present at the scene. The tasks of this person are summarised below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure that the above actions have been completed</td>
<td>• The actions mentioned in the previous paragraph, allocated to the first attending officer, have to be completed</td>
</tr>
<tr>
<td>Review and/or implement appropriate cordons</td>
<td>• It is better that cordons are set too large than too small: they can always be reduced later.</td>
</tr>
<tr>
<td>Protect the scene</td>
<td>• Where there is likelihood that physical evidence may be damaged or destroyed by weather conditions or other means, undertake appropriate emergency preservation.</td>
</tr>
<tr>
<td>Establish a rendezvous point</td>
<td>• A rendezvous point should be established at the outer cordon • The rendezvous point should be communicated to all staff in order that they can report to the Crime Scene Loggist on arrival at the scene.</td>
</tr>
</tbody>
</table>

Scene of Crime Examiner

Following the actions taken by the first officer and supervisor at the scene, a Scene of Crime Examiner will attend and make an early assessment, taking any actions necessary to further preserve the scene prior to starting the examination. In the case of serious and major crime the SCE may wait for the Crime Scene Manager before commencing the examination. In these cases the Senior Investigator in consultation with the Crime Scene Manager, will agree a scene examination plan based upon this early assessment and the overarching forensic strategy.
Apart from the assessment, it is the responsibility of the Scene Examiner to locate and gather photographic, video and forensic evidence, using a variety of techniques. He/she should also document all actions carried out with regard to the preservation and recovery of evidence.

The tasks of this person are summarised below:

<table>
<thead>
<tr>
<th>Task</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Examination at the scene    | - On arrival, review and revise the scene protection afforded by a properly managed cordon  
- Initiate a Scene Examination Log of all evidence gathering activities undertaken.  
- Establish what police action has already taken place at the scene.  
- Identify, search and secure a Common Approach Path to the scene or deceased and ensure that this is identified by the use of crime scene tape.  
- Undertake an initial assessment of the scene and communicate the findings to the Crime Scene Manager  
- Record the initial scene by use of video, photographic equipment and/or sketch plans.  
- Take any necessary actions to secure and preserve physical evidence to allow the subsequent removal of the deceased  
- Prior to removal of the deceased record its position by suitable means.  
- Search for, identify, preserve and recover all types of contract trace evidence  
- Provide specialist support to Forensic Scientists and other Scientific Support personnel at the scene  
- Ensure the integrity and security of evidence recovered from the scene  
- Provide appropriate documentation of all actions taken to the Crime Scene Manager  
- Prepare an indexed photograph album of all photographs taken and pass to the Crime Scene Manager  
- Provide consultancy regarding the submission of forensic evidence for examination |
Post-mortem examination

- Photograph the deceased to assist with identification.
- Photograph the deceased to show injuries, using scales and other indicators as necessary.
- Receive samples taken from the deceased by the forensic pathologist.
- Package and exhibit deceased’s clothing in liaison with the Exhibits Officer.
- Assist in packaging, exhibiting and storage of the Pathologist’s samples from the deceased.
- Take fingerprints and palm prints of the deceased at the conclusion of the post-mortem and footprints where it may assist the investigation. Consider the use of other forensic specialists in the identification process (e.g. Forensic Odontologists).
- Attend any subsequent Pathologist’s examination of the body, whether it be for the Defence or Prosecution, taking any further forensic samples and photographs as required.
- Ensure that any weapon taken to a post-mortem is packaged, boxed and exhibited so that it can be viewed through a polythene window for the Pathologist’s information, without fear of contamination.

Crime Scene Manager

The central role of the Crime Scene Manager is to supervise the scene examination in a way that facilitates the input of specialists so that the maximum evidence and information is extracted from the scene. The Crime Scene Manager will be directly responsible to the Senior Investigator and the Scientific Support Co-ordinator for the management of the crime scene.
Scene examination should be driven by any available intelligence and directed pro-actively to solve investigative problems. This will be achieved by attention to the following points:

- Assess, prioritise and advise the Scientific Support Co-ordinator (if appointed) on the requirement for Scientific Support services.
- Provide for a structured approach, co-ordinate resources and disseminate information concerning scene examinations, briefing Scene Examiners accordingly.
- Ensure all persons entering the scene wear protective clothing, overshoes, face masks and gloves and that they are exhibited.
- Provide advice and quality assurance on all scientific matters, including the storage and packaging of exhibits and release of the scene.
- Record all actions and policy decisions within an appropriately designed Crime Scene Manager's Log Book.
- To receive actions from the Scientific Support Co-ordinator (if appointed) in relation to scene examinations, forensic and other scientific support matters.
- Ensure compliance with Health and Safety legislation and regulations.
- Brief the Scientific Support Co-ordinator and Senior Investigator on completion of the scene examination prior to its release.
- Ensure the welfare needs of those attending the scene are met.
- If not appointed, carry out the duties of the Scientific Support Co-ordinator.
- Take responsibility for receipt and co-ordination of all scene examination documents created during and subsequent to the scene examination.
- Take responsibility for all photographic albums produced.
- In complex cases such as those involving multiple scenes it may be necessary to appoint a number of Crime Scene Managers, one for each crime scene. In consequence, a contamination log should be kept in such cases in order that no problems arise in this area. In such cases it is recommended that a Crime Scene Manager be appointed for each scene to ensure that no contamination occurs.
- In cases of multiple offenders, it is recommended that a different Scene Examiner is used for each individual.
Scientific Support Co-ordinator

The role of the Scientific Support Co-ordinator (or Crime Scene Co-ordinator) within the major incident management team is to ensure:

- All aspects of the scene examination are conducted in a co-ordinated manner
- A full range of Scientific Support techniques are made available.
- Effective and efficient communication channels between Scene of Crime Examiners and the investigation team are essential in every case
- The optimum use of forensic, photographic and fingerprint evidence
- The Senior Investigator is fully informed and properly advised
- The provision of accurate briefings to all agencies involved in the investigation
- Minimum risk to Investigating Officers from any health hazards
- Quality assurance of scene examination and subsequent forensic submissions
- Through liaison, a structure and priority for any subsequent examination of forensic submissions
- A full debrief on completion to consider items of good practice/strategy for future use, health and safety and risk assessment.

Senior investigator

The Senior Investigator is the law enforcement officer in charge, and therefore has overall responsibility for the management of the investigation, including the scene examination.

The Senior Investigator acts as the interface between investigators and crime scene officers, forensics scientists, experts and the justice and prosecution services.

The duties of the Senior Investigator also include conferring with the court or prosecution service with regard to further measures following consultation with the crime scene officers and investigators, forensic scientists and other experts.
Forensic pathologist

The tasks carried out by the forensic pathologist are summarised in the table below.

<table>
<thead>
<tr>
<th>Task</th>
<th>Activities</th>
</tr>
</thead>
</table>
| Attend the scene                  | • Give an estimate of the time of death  
• Assist in the interpretation of the scene with reference to general disposition of the body and its surroundings  
• Identify the remains as human, its gender and approximate age. On occasion, the movement of a body from the scene may hamper the findings at a subsequent post-mortem examination. The examination of the body in situ, by a Pathologist, may prove invaluable. |
| Carry out the post mortem examination | • Determine the cause of death  
• Comment on how death occurred and give a scientific/medical evaluation as to the time of death  
• Produce a body plan of the deceased, recording every injury  
• Examine all injuries to the deceased, giving indications as to the sequence of the attack, nature of weapons used and degree of force used  
• Provide comparison between any recovered weapons and injuries sustained  
• Take anatomic samples for further analysis |

Forensic Scientist

A forensic scientist can enhance the scene examination, possibly increasing the value of the recovered evidence in the criminal justice chain. The decision as to whether or not a Forensic Scientist attends the scene should normally be made by the Scientific Support Co-ordinator following consultation with the Senior Investigator.
The presence of a Forensic Scientist can enhance the scene examination in the following ways:

- Advising on the most appropriate items/samples to be taken to further advance the investigation
- Examination and interpretation of the scene to establish the sequence of events leading up to an incident
- Giving an opinion on whether the information provided by witnesses is supported by the scientific evidence
- Applying techniques not available to scientific support staff to locate or enhance scientific evidence
- On completion of the scene examinations to fully brief the Senior Investigator and provide a preliminary, written, scene examination report outlining all the main observations.

**Other experts**

The Scientific Support Co-ordinator will decide whether the attendance of other specialists is required at the crime scene in consultation with the Senior Investigator. The scene of any crime involving the loss of life warrants the deployment of a scientific support coordinator or a designated crime scene manager. However, the level of response needs to be tailored to the nature and complexity of the offence being investigated.

**Forensic Medical Examiner**

It is the role of the forensic medical examiner (where appropriate) is to certify the death of the deceased, to record the time this was done and to give the Senior Investigator an estimate of the time of death and any opinion as to the cause.

**Firearms/ballistic experts**

In all cases involving the use of any firearm or explosive device ensure that an appropriate Forensic Scientist attends each scene to direct and advise on the recovery of all available evidence.
Plan drawer

It is the responsibility of the plan drawer to record the crime scene. First, the crime scene is drawn as it is initially found. As the search progresses, the plan drawer records the finding of any items which may be relevant. In some circumstances the Plan Drawer prepares a plan of the scene showing the zoning for the search.

Exhibits officer

The exhibits officer has a responsibility throughout any major enquiry for the receipt, control, security, chain of custody and co-ordination of all exhibits and their subsequent movements. This will culminate in the provision of an accurate recorded exhibits and the availability of all exhibits required throughout the criminal justice process. In certain instances it may be necessary to appoint more than one Exhibits Officer to prevent contamination of evidence.

The primary duties of the Exhibits Officer are:

- Maintain a continuous liaison with the Crime Scene Manager to facilitate all actions relating to physical evidence packaging
- To receive all exhibits coming into Police possession during the course of the investigation.
- If required by the Senior Investigator, to attend all post-mortem examinations and receive all exhibits taken by the Forensic Pathologist or Scene Examiner
- Ensure all exhibits have been recorded and suitably described prior to receipt and to bring all relevant evidence to the notice of the Senior Investigator at the earliest opportunity.
- To ensure appropriate storage and security of all exhibits, throughout the investigation
- Ensure that all items are correctly packaged, presented and labelled with full proof of chain of custody
- Compile a complete and contemporaneous master record of all exhibits and their subsequent movement.
- Obtain full statements from all officers submitting exhibits or responsible for their movement, to ensure proof of chain of custody.
• In consultation with the Scene Examiner and the Crime Scene Manager, prepare and forward all forensic, fingerprint and other items to the appropriate department or agency for examination, identifying exactly the scientific examination required.
• Provide a photocopy of all appropriate documentary exhibits for the Senior Investigator and investigation teams.

**Coroner’s Officer**

In case a body is present, a Coroner’s Officer may be present at the crime scene as well. The coroner must enquire into all cases of sudden or unnatural death within his or her jurisdiction. The coroner’s officer performs duties on behalf of the coroner. The role is as follows:

• To liaise with the Senior Investigator and the Coroner to obtain permission to use a forensic pathologist
• To liaise with the mortuary to arrange facilities and staff who will assist the pathologist to perform the post-mortem examination
• Provide continuity of identity of the deceased.

This list of roles is drawn from the European Crime Scene Management Good Practice Manual, produced as part of the European Crime Scene Management Project, UK 2000. It is not an exhaustive list and the role titles may vary between organisations.
9. References and Bibliography

EA-ENFSI, 2008, EA-5/03 Guidance for the implementation of ISO/IEC 17020 in the field of crime scene investigation

ENSFI QCC, 2003, *Guidance on the Production of Best Practice Manuals within ENSFI*, Standing Committee for Quality and Competence


ISO/IEC 17020:2012, *Requirements for the operation of various types of bodies performing inspection*. NB this is to be replaced by 17020:2012.

IAF/ILAC A4, Guidance on the application of ISO/IEC 17020, section 7.4 (Reporting the Results), Inter Laboratory Accreditation Cooperation, 2004

IAF/ILAC, 2002, *Guidelines for Forensic Laboratories*, Inter Laboratory Accreditation Cooperation


European Crime Scene Management Good Practice Manual, produced as part of the European Crime Scene Management Project, UK 2000