Study on Obstacles to Cooperation and Information-sharing among Forensic Science Laboratories and other Relevant Bodies of Different Member States and between these and Counterparts in Third Countries

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4 Executive Summary

Forensic science is playing an ever increasing role in the investigation and prosecution of crime. Furthermore, with the rising tide of global crime (terrorism, organised crime etc.) it is essential that effective measures are in place to support and encourage forensic cooperation across international borders.

This one-year study has taken a broad look at the current environment for forensic cooperation across Europe. Further, it has done so from the viewpoint that forensic cooperation does not stop at Europe’s borders but needs to be seen in the context of international forensic cooperation around the world. The study has identified a wide range of obstacles to achieving effective forensic cooperation and has formulated recommendations to help address these issues.

In the early stages of the work, the study team has developed a Forensic Cooperation Model. The model describes the flows of forensic information and knowledge both inside a given country and also across its international borders. The model has been an effective framework used throughout the study. As a representation of the current national and international situation, the model has provided insights into the interactions between the stakeholders (the forensic and the law enforcement communities). Further, it has also provided a clear distinction between forensic data and forensic expert opinion. Overall, it has helped to identify the wide diversity of international forensic cooperation including:

- the mutual support of forensic institutes to achieve appropriate levels of preparedness to deliver forensic casework (training, designing and building facilities, sharing methodologies, supporting the achievement of quality accreditation etc.),
- the mutual support of forensic institutes at times of need (after a major incident or a terrorist attack) when local capacity is exceeded and practical measures are required to handle the excess casework,
- the sharing of forensic information (e.g. that held in databases) between different countries or between different forensic institutes,
- the transfer of forensic expert opinion between law enforcement teams in different countries to support criminal investigations,
- the transfer of forensic expert opinion between appropriate judicial authorities in different countries to support prosecutions,
- the delivery of expert testimony by an expert witness in a court in a different country.

A deeper understanding of the current environment for forensic cooperation in Europe has been achieved by examining the contributions from the various international stakeholders engaged in this area. These reviews have included the European Union (EU), Europol, Eurojust, Interpol, G8, the United Nations (UN), the European Network of Forensic Science Institutes (ENFSI), other Regional Forensic Networks and the European Police College (CEPOL). The large number of players involved (a point also emphasised by the very complexity of the Forensic Cooperation Model) has raised questions about the existing opportunities for effective strategic discussions about forensic science to take place between the forensic community and the law enforcement community.

In addition, the study team has identified and reviewed several current initiatives underway within Europe that are impacting upon forensic cooperation (or have the potential to do so in the future). These initiatives include the Schengen Information System (SIS), the Prüm Treaty incorporated into EU legislation, a web-based ENFSI crime scene website supported by Europol, the ENFSI Multilingual language translation glossary and the ENFSI FORJUST project facilitating the delivery of forensic training within the judicial community.

A key output from the study has been the reaffirmation that forensic quality standards play a central role in the achievement of effective international cooperation. The exchange of forensic information relies upon both the provider and the recipient sharing the same common high standards. To this end, a comprehensive review has been undertaken of the numerous
initiatives underway in the area of European forensic quality and accreditation. Much good work is being done but it is clear that any desire to further increase the speed of progress or to take on yet more initiatives will lead to a significant strain on current resources.

Consideration has also been given to the importance of sharing national forensic database information. There are several European and worldwide initiatives underway in this specific area, mainly relating to DNA and fingerprints. The study does not make any specific recommendations in this area as many of the existing initiatives have yet to reach full implementation. However, there may be opportunities for the sharing of other types of forensic database information and to that end an up to date survey of European databases would provide a good foundation for considering those opportunities.

Questionnaire surveys and structured interviews have been used to obtain views about forensic cooperation from a wide range of stakeholder groups across Europe including representatives from both the forensic communities and the law enforcement communities. These have included the directors of the ENFSI institutes, the chairs of the ENFSI Expert Working Groups (EWGs), the Eurojust National Correspondents for Terrorist Matters (NCTs) and the Europol Liaison Bureaus. Respondents were asked to base their answers on their personal experiences of forensic cooperation. In addition to questions relating to forensic cooperation, the questionnaires have also provided an overview of preparedness across ENFSI institutes from the viewpoint of their abilities to deliver forensic services after a major bomb incident.

Following a detailed evaluation, the obstacles to forensic cooperation arising from the questionnaires have provided the basis for the 36 recommendations put forward in this final report. The information about the current environment for forensic cooperation in Europe has also been a major source leading to the recommendations. At a final stage, the recommendations have been ranked to provide guidance on their relative importance and priority for implementation. Although the full set of recommendations covers a wide range of topics, those with top priority cluster under four general themes:

- To work with the EC to find ways to share this report and the report recommendations with both the forensic community and the law enforcement community, to gain wide acceptance for the ideas and to formulate the way ahead towards more effective forensic cooperation. Through this process to seek to identify the key players to be involved in the future implementation of specific elements. (Recommendations 1, 2, and 3)

- To seek ways to create new forums where the forensic community and the law enforcement community can engage in strategic discussions about forensic science. This might include joint training initiatives between the communities. A positive outcome would be the engagement of the forensic community in national major incident planning and participation in national exercises designed to simulate emergency events. (Recommendations 26, 27 and 28)

- To encourage and promote the broad range of quality initiatives being undertaken within ENFSI involving the Quality and Competence Committee (QCC) and the EWGs. The QCC and the EWGs, supported by the ENFSI Board, remain the focus for future work activity to push forward progress in Europe such that every institute quickly achieves ISO17025 accreditation as a first major milestone. Critical factors for long-term success will be centred on the future availability of resources (particularly the availability of people to deliver the work) and the governance (objectives, roles, responsibilities) provided by the ENFSI Board. (Recommendations 8, 12, 13, 14, 15, 17 and 19)

- To draw upon the experience already gained in some parts of Europe with the delivery of forensic services in the aftermath of a major bombing incident to produce a European Best Practice Guide for achieving preparedness for such an event. Further, in the interests of preparedness ENFSI institutes should be encouraged to draft formal agreements with other institutes to facilitate the rapid initiation of forensic support between those institutes at a time of great need, e.g. after a major incident. (Recommendations 4 and 5)
## 5 Members of the Study Team

<table>
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<th>Name</th>
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6 Acknowledgements

Many individuals and organisations have assisted the study team during the course of this one-year study. Nevertheless, two particular individuals stand out as having been major contributors to the work and have become regarded within the study team as “associate study team members”. They are Dr Christa Dern from the Bundeskriminalamt Kriminaltechnisches Institut, Wiesbaden, Germany and Dr Pierre van Renterghem from Europol Headquarters in The Hague, Netherlands. We wish to record our sincere thanks to these two individuals for their enthusiastic hard work and their very productive inputs into the study.

We also wish to express our thanks to the ENFSI Board for giving their strong support to this project and their encouragement of all the ENFSI institutes to contribute. Particular thanks are due to the ENFSI directors of the home institutes of the study team members, who have given their support for their staff members to be directly involved with the project as part of team. We are also very pleased to offer our thanks to Mr Wim Neuteboom and Mrs Judy van Overveld at the ENFSI Secretariat located within the Netherlands Forensic Institute, The Hague. The ENFSI Secretariat has undertaken many tasks on behalf of the study team over the course of the year including the distribution of questionnaires to ENFSI institutes.

The management of Eurojust and The Forensic Explosives Laboratory Dstl are gratefully acknowledged for releasing Mr Phil Hicks and Mr Sean Doyle, respectively to participate as members of the study team.

With reference to our enquiries about international forensic cooperation, thanks are due to:

Dr Vincent Otieno Alego (Team Leader, Chemical Criminalistics, AFP)
Gregory Carl (Chief of the Federal Bureau of Investigation, FBI, Explosives, Unit, FBI Laboratory Division, USA)
Herman Metz (Manager Forensic & Data Centres Business Support, Forensic & Data Centres, AFP)
Stephanie Reilandner (Deputy Director, Centre of Forensic Sciences, Ontario, Canada and the President of ASCLD)
Dr Barbara Remberg (Laboratory and Scientific Section, UNODC, Vienna, Austria)
Dr James Robertson (National Manager Forensic & Technical, Australian Federal Police, AFP)
Alastair Ross (the Director of the Victoria Police Forensic Science Department and the Chairman of SMANZFL)
Alexander Theus (Europol Headquarters in The Hague, Netherlands).

Werner Schuller (Interpol Assistant Director, Forensic Support and Specialised Technical Databases Sub-Directorate)

As always, the production of a finished study report benefits greatly from several people in the background who are involved with the final publication process. We want to thank Dr Reinoud Stoel (NFI, The Hague) for his support in the processing of numerical data from the questionnaires and Alan Baxter (The Forensic Science Service, Birmingham, UK) for his work in preparing the final document ready for printing and binding. In particular, we want to thank Dr Alison Gill for proof reading the final manuscript. Nevertheless, any errors that remain in the document are the sole responsibility of the author and his team.
7 List of Report Recommendations (In Numerical Order)

The following Table contains a complete list of the recommendations arising from the study listed in the order that they are introduced within the final report.

The study recommendations have been judged by the study team using a scale where three stars (★★★) represent those with the highest priority, whilst those with two stars (★★) and one star (★) have decreasing priorities. Nevertheless, it must be emphasised that every single recommendation (below) is being proposed as having the potential to impact upon overall forensic cooperation (see Chapter 18 for further details).

The abbreviations used within this summary table are defined within the main text of the report as they arise and, for easy reference, they are also listed in Chapter 20.

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<td>★★★</td>
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<td>For the study team to work with the EC to agree routes by which this final report can receive widespread circulation amongst the European forensic and law enforcement communities. This recognises that these two communities have a common interest in the flows of forensic information both inside and between countries. The purpose of such dissemination would be to promote knowledge and understanding of forensic cooperation amongst all stakeholders and, thereby, to prepare the ground for further debate and for the implementation of the report recommendations.</td>
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<td>Recommendation 2</td>
<td>★★★</td>
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<tr>
<td>For an appropriate sensitisation event (workshop, seminar or conference) to be organised to involve a mix of delegates drawn from both the forensic and the law enforcement communities. The purpose of the event would be to facilitate meaningful detailed discussions about the current study outcomes with further opportunities to challenge and re-prioritise the recommendations. Further, the event could play an important role in planning the way ahead, with discussions relating to the practical aspects of implementing the recommendations. The staging of such an event would probably best sit under the banner of the EC to emphasise the wide engagement of both the forensic and the law enforcement communities.</td>
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<tr>
<td>Recommendation 3</td>
<td>★★★</td>
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<tr>
<td>To carefully explore with forensic and law-enforcement stakeholders the range of organisations that will need to be involved when implementing each recommendation arising from the current study. The complexity of the forensic cooperation model has clearly highlighted the importance of multiple stakeholder engagement to facilitate success when tackling the obstacles to forensic cooperation. Implementation that involves the European forensic community will undoubtedly point towards ENFSI or the individual forensic institutes. Implementation that involves the law enforcement community is less easily assigned and the support of the EC will be needed to help identify, engage and motivate the appropriate organisations and agencies across Europe.</td>
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<tr>
<td>Recommendation 4</td>
<td>★★★</td>
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<td>To initiate a project using a team drawn from the ENFSI institutes to research and prepare a European Best Practice Guide for achieving preparedness to deal with major explosive incidents within a forensic institute/laboratory. The evidence gathered within the present study will provide a foundation for such work but more detailed information will need to be collected from the ENFSI institutes and other</td>
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organisations outside of ENFSI, in particular from those countries that have already had to face terrorist attacks.

**Recommendation 5**
For ENFSI to encourage the drafting of formal agreements between ENFSI institutes (and other forensic organisations) to facilitate the rapid initiation of forensic support between those institutes at a time of great need (e.g. immediately after a major incident). Such outline agreements negotiated in advance will provide the important framework on which specific forensic services can be implemented and delivered quickly to meet a specific emergency. ★★★

**Recommendation 6**
To initiate a project using a team drawn from appropriate European institutes to investigate the current best practice (including forensic recovery) for dealing with wider scope CBRN incidents from a forensic perspective. The work will need to look at all aspects of this activity from the incident scene to the laboratory and will require significant collaboration with those other organisations that have responsibilities in CBRN emergency situations e.g. those organisations charged with the duty of cleaning up after such incidents. ★

**Recommendation 7**
To conduct a detailed survey of all European forensic institutes to help understand the many different external oversight factors and agencies (national and international) that are currently influencing their approaches for achieving ‘fitness for purpose’ in the delivery of their forensic services. ★★

**Recommendation 8**
For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to continue to strengthen its relationship with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC). Further, the ENFSI Board should ensure that resources are made available to the QCC such that the highest priority can be given to working with EA and ILAC in the development of the new common guidance document for both ISO17020 and ISO17025, to cover the whole forensic process, involving both crime scenes and work in the forensic laboratory. ★★★

**Recommendation 9**
For all ENFSI institutes to set up a telephone/email point-of-contact to act as a starting place for regular communication between institutes. Such a route would provide an additional line of communication other than the direct communication routes that already exist between the institute directors. ★★

**Recommendation 10**
For ENFSI to explore new approaches and policies for communication between forensic institutes encouraging more direct communication between institute staff at all levels. In particular, to explore routes by which forensic experts can readily engage with each other and thereby call upon a wider pool of knowledge and expertise than available within their own institutes. Such new routes of communication might involve the further exploitation of the ENFSI website with the application of newer software communication tools, to facilitate discussion forums or other communication platforms. ★★

**Recommendation 11**
For ENFSI to examine the current methods of electronic communication between forensic institutes and consider ways by which the security of such communication can be improved for the transfer of sensitive information when
necessary (e.g. handling casework information). Consideration should also be given to the compatibility of such secure institute-to-institute communications with sensitive information transfers to the law enforcement community (e.g. police forces).

Recommendation 12
For the ENFSI Board to strongly encourage all ENFSI institutes to move rapidly towards achieving quality accreditation to the international ISO17025 standard in line with the membership criteria contained within the ENFSI “Framework for Membership” (ENFSI BRD-FWK-001).

Recommendation 13
For the ENFSI Board to support & strengthen the current work of the ENFSI Quality & Competence Committee (QCC) in all aspects of its work to design and implement quality standards. In particular, for the QCC to be encouraged to continue its work on the development of detailed quality standards in those areas not adequately covered by the ISO standards (competence assessment, method validation etc.). Further, that the ENFSI Board makes available adequate resources to ensure speedy progress in this important area.

Recommendation 14
To achieve wide recognition that the ENFSI EMFA Project (European Mentorship for Forensic Accreditation) and the ENFSI inter-laboratory exercises are two important tools for establishing, maintaining and driving up quality standards in European forensic science. Through this recognition to secure improved resourcing for these activities from the EC and thereby to ensure well-managed and well-directed programmes of work for the future. In this way widespread European quality accreditation to international standards can be achieved more quickly and furthermore those standards can be maintained and enhanced over time.

Recommendation 15
For the ENFSI Board to reiterate the importance of the ENFSI Expert Working Groups (EWGs) as the key foundation for the identification of best practice, the setting of common standards and for promoting method harmonisation for their own forensic disciplines across all ENFSI institutes. Such strengthening of the EWG role will require clear governance (objectives, roles, responsibilities) from the ENFSI Board and the full commitment of all the EWGs to align with the ENFSI objectives. Equally important, the strengthening of the EWG role will require the full support of all ENFSI directors who provide the staff to resource the EWGs. The manpower resource required to achieve effective progress in this area should not be underestimated and the ENFSI Board may need to achieve significant external funding to help facilitate the release of such manpower resource from individual ENFSI institutes.

Recommendation 16
For ENFSI and the European Commission (EC) to seek constructive dialogue with the legal community to jointly explore ways to safeguard the continued collection of forensic quality data (e.g. the results of inter-laboratory exercises) recognising that such information can be used in negative ways during trials and tribunals.

Recommendation 17
For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to work with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC) to develop and implement common European/International standards for forensic interpretation.
**Recommendation 18**
For ENFSI to prepare a central list of forensic databases and physical forensic collections that are currently held by individual ENFSI institutes with a view to the potential future sharing of such forensic information. Further, to consider the adequacy of such existing databases and to identify those databases with potential for further development.

**Recommendation 19**
For ENFSI to work towards harmonising and adopting common standards for the exchange of forensic information (databases etc.) for those areas where such standards have not yet been developed and where there are significant benefits for sharing such data across international borders.

**Recommendation 20**
To raise the awareness amongst European forensic practitioners of the ENFSI Multilingual project and thereby encourage wider use of the tool and its further development to include more languages and more areas of forensic expertise.

**Recommendation 21**
To investigate the potential application of ever improving modern software translation tools in the area of technical translation and thereby explore their application in the field of forensic science.

**Recommendation 22**
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## Recommendation 34
To undertake further consultation with the organisations that already play important roles in the facilitation of forensic cooperation throughout Europe (Europol, Interpol, Eurojust, ENFSI, European Commission) to further test the validity of the forensic cooperation model and the recommendations that arise from the current study.

## Recommendation 35
To undertake further consultation with organisations outside of Europe that are key stakeholders in promoting forensic cooperation throughout the world to help further test the validity of the forensic cooperation model and the recommendations that arise from the current study. Such organisations to include the regional networks of forensic science laboratories (ASCLD, SMANZFL, AICEF).

## Recommendation 36
Through further consultation with stakeholders from both the forensic community and the law enforcement community to explore ways in which the forensic cooperation model can be improved and adapted, and thereby used as the basis for further understanding the processes by which forensic knowledge and information is shared. Through this developing understanding, provided with the aid of the model, to further understand the obstacles to such cooperation and thereby seek long-term solutions.
## 8 List of Report Recommendations (In Priority Order)

The following Table contains a complete list of the recommendations arising from the study grouped together according to their priority.

The study recommendations have been judged by the study team using a scale where three stars (★★★) represent those with the highest priority, whilst those with two stars (★★) and one star (★) have decreasing priorities. Nevertheless, it must be emphasised that every single recommendation (below) is being proposed as having the potential to impact upon overall forensic cooperation (see Chapter 18 for further details).

The abbreviations used within this summary table are defined within the main text of the report as they arise and, for easy reference, they are also listed in Chapter 20.

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<td>For the study team to work with the EC to agree routes by which this final report can receive widespread circulation amongst the European forensic and law enforcement communities. This recognises that these two communities have a common interest in the flows of forensic information both inside and between countries. The purpose of such dissemination would be to promote knowledge and understanding of forensic cooperation amongst all stakeholders and, thereby, to prepare the ground for further debate and for the implementation of the report recommendations.</td>
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major explosive incidents within a forensic institute/laboratory. The evidence gathered within the present study will provide a foundation for such work but more detailed information will need to be collected from the ENFSI institutes and other organisations outside of ENFSI, in particular from those countries that have already had to face terrorist attacks.

### Recommendation 5
For ENFSI to encourage the drafting of formal agreements between ENFSI institutes (and other forensic organisations) to facilitate the rapid initiation of forensic support between those institutes at a time of great need (e.g. immediately after a major incident). Such outline agreements negotiated in advance will provide the important framework on which specific forensic services can be implemented and delivered quickly to meet a specific emergency.

### Recommendation 8
For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to continue to strengthen its relationship with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC). Further, the ENFSI Board should ensure that resources are made available to the QCC such that the highest priority can be given to working with EA and ILAC in the development of the new common guidance document for both ISO17020 and ISO17025, to cover the whole forensic process, involving both crime scenes and work in the forensic laboratory.

### Recommendation 12
For the ENFSI Board to strongly encourage all ENFSI institutes to move rapidly towards achieving quality accreditation to the international ISO17025 standard in line with the membership criteria contained within the ENFSI “Framework for Membership” (ENFSI BRD-FWK-001).

### Recommendation 13
For the ENFSI Board to support & strengthen the current work of the ENFSI Quality & Competence Committee (QCC) in all aspects of its work to design and implement quality standards. In particular, for the QCC to be encouraged to continue its work on the development of detailed quality standards in those areas not adequately covered by the ISO standards (competence assessment, method validation etc.). Further, that the ENFSI Board makes available adequate resources to ensure speedy progress in this important area.

### Recommendation 14
To achieve wide recognition that the ENFSI EMFA Project (European Mentorship for Forensic Accreditation) and the ENFSI inter-laboratory exercises are two important tools for establishing, maintaining and driving up quality standards in European forensic science. Through this recognition to secure improved resourcing for these activities from the EC and thereby to ensure well-managed and well-directed programmes of work for the future. In this way widespread European quality accreditation to international standards can be achieved more quickly and furthermore those standards can be maintained and enhanced over time.

### Recommendation 15
For the ENFSI Board to reiterate the importance of the ENFSI Expert Working Groups (EWGs) as the key foundation for the identification of best practice, the setting of common standards and for promoting method harmonisation for their own forensic disciplines across all ENFSI institutes. Such strengthening of the EWG role will require clear governance (objectives, roles, responsibilities) from
the ENFSI Board and the full commitment of all the EWGs to align with the ENFSI objectives. Equally important, the strengthening of the EWG role will require the full support of all ENFSI directors who provide the staff to resource the EWGs. The manpower resource required to achieve effective progress in this area should not be underestimated and the ENFSI Board may need to achieve significant external funding to help facilitate the release of such manpower resource from individual ENFSI institutes.

**Recommendation 17**

For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to work with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC) to develop and implement common European/International standards for forensic interpretation.

**Recommendation 19**

For ENFSI to work towards harmonising and adopting common standards for the exchange of forensic information (databases etc.) for those areas where such standards have not yet been developed and where there are significant benefits for sharing such data across international borders.

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**Recommendation 7**
To conduct a detailed survey of all European forensic institutes to help understand the many different external oversight factors and agencies (national and international) that are currently influencing their approaches for achieving 'fitness for purpose' in the delivery of their forensic services.

**Recommendation 9**
For all ENFSI institutes to set up a telephone/email point-of-contact to act as a starting place for regular communication between institutes. Such a route would provide an additional line of communication other than the direct communication routes that already exist between the institute directors.

**Recommendation 10**
For ENFSI to explore new approaches and policies for communication between forensic institutes encouraging more direct communication between institute staff at all levels. In particular, to explore routes by which forensic experts can readily engage with each other and thereby call upon a wider pool of knowledge and expertise than available within their own institutes. Such new routes of communication might involve the further exploitation of the ENFSI website with the application of newer software communication tools, to facilitate discussion forums or other communication platforms.

**Recommendation 11**
For ENFSI to examine the current methods of electronic communication between forensic institutes and consider ways by which the security of such communication can be improved for the transfer of sensitive information when necessary (e.g. handling casework information). Consideration should also be given to the compatibility of such secure institute-to-institute communications with sensitive information transfers to the law enforcement community (e.g. police forces).

**Recommendation 16**
For ENFSI and the European Commission (EC) to seek constructive dialogue with the legal community to jointly explore ways to safeguard the continued collection of forensic quality data (e.g. the results of inter-laboratory exercises) recognising that such information can be used in negative ways during trials and tribunals.

**Recommendation 18**
For ENFSI to prepare a central list of forensic databases and physical forensic collections that are currently held by individual ENFSI institutes with a view to the potential future sharing of such forensic information. Further, to consider the adequacy of such existing databases and to identify those databases with potential for further development.
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### Recommendation 6
To initiate a project using a team drawn from appropriate European institutes to investigate the current best practice (including forensic recovery) for dealing with wider scope CBRN incidents from a forensic perspective. The work will need to look at all aspects of this activity from the incident scene to the laboratory and will require significant collaboration with those other organisations that have
responsibilities in CBRN emergency situations e.g. those organisations charged with the duty of cleaning up after such incidents.

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9 Introduction and Scope

The general objective of the current European Commission (EC) contract (JLS/D1/2007/025) was to provide a comprehensive overview and insight into the obstacles (gaps, limiting factors etc.) that inhibit European forensic laboratories sharing forensic information and working together in support of law enforcement investigations and subsequent prosecutions. The key aims were to identify the obstacles to cooperation that exist nationally and internationally and to recommend ways in which these can be overcome.

From the outset it was recognised by the study team that the EC has a broad interest in European forensic cooperation associated with all areas of activity where forensic science can make a contribution (terrorism, organised crime, major crime, human trafficking, illicit drug supply natural disasters etc.). In view of the relatively short timescale of the study, the approach outlined in the study inception report (January 2008) was to concentrate on terrorist criminality (with a particular emphasis on bomb attacks) as the basis for our evidence collection. The seriousness of such incidents, along with their inevitable international focus, means that forensic cooperation between countries will be pursued with considerable energy in such situations.

Thus, the concentration on evidence gathering in the field of counter-terrorism has been pursued in the work of the study team throughout the project, as planned. Nevertheless, the information collected continued to point towards wider principles that apply across all areas of criminality, not just terrorism.

In the study inception report for the contract, delivered to the EC in January 2008, the detailed aims of the study were documented as follows:

- To complete an inventory of the counter terrorism capabilities of European forensic science institutes.
- To identify the obstacles that prevent or limit the cooperation between European forensic science institutes.
- To prioritise the obstacles identified and make recommendations on how such factors can be minimised or eliminated.

Further, in the study inception report, the study team committed to the evaluation of its findings within the context of a visual model representing a framework for European/International forensic cooperation. It was envisaged from the outset that the findings from the study were likely to be broad and complex and would benefit from such an approach using a visual model.

In the detailed planning stages of the study the anticipated scope and complexity of the findings were reinforced. Thus, an early decision was taken by the study team to utilise significant resources at the beginning of the EC contract to draft an initial working model for international forensic cooperation to help facilitate the follow up stages of the project. The work on this initial model development was described in the study interim report (June 2008) and the further refinements are described in detail later in this final report.
10 European/International Forensic Cooperation Model

10.1 Significance of the Model in the Present Study

During the original planning stages of the current study, the concept of a forensic cooperation model was envisaged as a framework for the presentation of the results from the various evidence collection steps. Furthermore, the model was seen as the vehicle to help present the recommendations for the future improvement of forensic cooperation.

The preliminary information collection stages quickly highlighted the complexity of forensic cooperation and the lack of a common vocabulary to describe that complexity. The early work of the study team (brainstorming, personal experiences, discussions with colleagues, initial analysis of responses to questions etc.) soon demonstrated wide ranging complexity in terms of:

- the wide range of different agencies involved in working together and sharing in matters relating to forensic science,
- the diverse meanings attributed to the term ‘forensic cooperation’ by the different stakeholders and respondents during discussions,
- the confusions arising from the many different types of forensic information that are shared during the processes of forensic cooperation,
- the many different drivers that lead to forensic cooperation,
- the different national legislations and law enforcement processes that can confuse the overall picture.

When initially contemplating the concept of a forensic cooperation model several important points became clear:

- There is currently no generally accepted model to describe forensic processes even at a national level.
- There is a need for forensic processes to be more fully understood both inside and outside the forensic community.
- Stakeholders and respondents were in general very positive about the potential value of a forensic cooperation model but were sometimes sceptical as to whether such a model might be achievable.
- A forensic cooperation model could provide a valuable focus for evidence gathering.

Through these realisations it became apparent that the value of a forensic cooperation model extended far beyond the original plans to use it in the latter part of the study to present the evidence and structure the recommendations.

Thus, at an early point, a decision was taken by the study team to invest significant resources in the development of an initial working model for forensic cooperation at the very beginning of the project. It had become very apparent that this would be an essential element of the initial work, to clarify the general understanding of forensic cooperation, develop a common vocabulary within the study team to discuss the topic and to provide an effective tool for the detailed design of the evidence gathering exercises. It became clear that the very process of constructing the model was, in itself, a powerful tool for gaining a deeper insight into the complex processes involved in forensic cooperation.

The initial working model for forensic cooperation developed at the beginning of the study has been further refined as the study has progressed. This continual refinement of the model has been informed by the evidence collected and the improved understanding by the study team gained through sharing the various early versions of the model with various stakeholders.
The following sections provide a detailed description of the final forensic cooperation model being proposed by the study team. It is the central platform that has been used by the study team to frame questions, to draft questionnaires, to identify areas of ignorance and to categorise the various responses from stakeholders.

The thinking relating to the model is presented as a narrative in line with the way that the concepts were developed by the study team.

Although the model has passed through several stages of refinement throughout the study it should still be regarded as a work in progress. This is because there are large numbers of stakeholders involved and the processes have significant complexity. Thus the study recommendations include further validity testing of the model with further stakeholders, probing the concepts in greater depth.

10.2 Initial Concepts

The following points were the key starting concepts for the forensic cooperation model:

- The model will attempt to describe the current situation with reference to the way that forensic science is used for the investigation and prosecution of criminality. Thus, the model will attempt to describe the current reality.

- At the end of the current study, with evidence gathered and views assessed, the study team will be aiming to put forward a model for the future to improve forensic cooperation. It is possible that such a future vision could be based on a radically different structure to the initial model. Equally it is possible that such a future vision might be based on the original model with enhancements in appropriate areas to stimulate international cooperation. At the outset of the study there was no way to fully anticipate the final outcome but the initial observations about the very complexity of forensic cooperation suggested that an evolutionary approach to improving cooperation (developments to the current model rather than radical change) would be the more likely outcome.

- The model must deal effectively with the diverse investigation and prosecution systems that exist within Europe and the world. The value of any such model is severely undermined by any lack of universality.

- The development of the complete international model will initially start with the development of a national model to describe the processing of forensic matters within the borders of a given country. Surprisingly, the study team were unable to find any previous attempts to produce process maps for the forensic environment at a national level.

- The complete forensic cooperation model will be developed by exploring the links across international borders from the national model.

10.3 Fundamental Concepts

Figure 1 provides an overview of the basic ideas at the centre of the current model. The key points are:

- It is important to distinguish between two different types of forensic commodity. These two types are:
- **Forensic Data** - This is the raw scientific data/information produced through forensic casework. It may be produced within a forensic laboratory when an item (exhibit) is examined or may sometimes be obtained at a crime scene. Examples of forensic data include a DNA profile, a fingerprint and a chemical profile of an illicit drug powder.

- **Forensic Expert Opinion** - By taking ‘forensic data’ generated during forensic casework a forensic expert can use their knowledge and experience to convert this into ‘forensic expert opinion’. This step is usually referred to as ‘interpretation’. In many instances the expert will need access to forensic data collections or databases to aid the interpretation of the raw scientific data. For example, forensic expert opinion may be of the form “the DNA recovered from this exhibit gives strong support to the idea that the item was handled by a specific person”.

- It is important to distinguish between the two different ‘communities’ that are involved with forensic information. These are:
  - **The Forensic Service Providers** - These are the organisations and individuals who conduct forensic investigations at crime scenes and within forensic laboratories. In general they are involved with the recovery of materials of forensic interest and the scientific examination of such materials to generate forensic data. This forensic community includes the individuals who attend scenes and others who perform the scientific examinations in the laboratory. In addition, the community includes forensic experts who generate forensic expert opinion.
  - **The Investigators & Prosecutors** - This law enforcement community is involved with the investigation and prosecution of crime and thereby includes the police, the intelligence services, the courts, magistrates and prosecutors, depending on the law enforcement environment within any particular country. In general, this community is interested in ‘forensic expert opinion’ rather than raw ‘forensic data’.

- **Preparedness** In order that forensic service providers are able to generate forensic data and forensic expert opinion it is essential that they are thoroughly prepared to deliver those services.

  Preparedness is a very wide ranging area and is as much (if not more) to do with management and planning as it is to do with technical capability. Some areas of importance include:

  - Capability to deliver the science (technical, quality standards)
  - Staff training & competences
  - Local contingency planning
  - Experience of live incidents
  - Organisational & operational frameworks
  - Capability to manage resources (staff, workflows, welfare etc.) in the event of a live incident
  - Capability to handle large numbers of exhibits (capacity)
  - Health & safety

- When considering potential international forensic cooperation it is important to recognise that the two different communities (the forensic service providers and the investigators/prosecutors) generally have different interests:

  - The cooperation between forensic service providers generally involves either supporting each other to achieve preparedness or supporting each other to
deliver forensic casework at times of need (e.g. when the capacity of a forensic provider is exceeded or when a provider seeks access to expertise not available within their own organisation).

- The cooperation between investigators and prosecutors generally involves the exchange and sharing of forensic expert opinion to support their investigations and prosecutions.

10.4 The Basic National Model

Figure 2 shows a simplified version of the national model. It incorporates all the fundamental concepts described above and provides an overview of the fundamental processes that exist at the national level. The key features are described below:

- The processes involving forensic information run vertically down the centre of the model from top to bottom. These start with forensic preparedness followed by scene examination and laboratory examination. At the bottom of the model forensic information is used to support the investigation of crime and ultimately during a trial (should it take place) to support the prosecution or the court.

- The yellow boxes running down both sides of the model represent the two communities (the forensic service providers and the investigators/prosecutors). It is worth noting that the two communities stretch from top to bottom of the model (from the scene examination through to the trial). This emphasises the potential involvement of both communities throughout all processes. Forensic service providers may be involved from scene/laboratory examination right through to the presentation of expert opinion during a trial. From the outset of an investigation, investigators/prosecutors will be involved in steering the work conducted by forensic service providers and will then have continuous direct involvement through to any subsequent prosecution trial, should that take place. This aspect of the model stresses the mutual inter-dependence of both communities (the forensic service providers and the investigators/prosecutors) with reference to forensic cooperation.

- It should be noted that all the functions of the forensic provider may not be delivered by any particular organisation. For example, in a given country, police teams may conduct some scene examination work and fingerprint work whilst other forensic examinations may be delivered by independent organisations. These are all aspects of the national forensic provision but are delivered across more than one organisation. Initially, when first looking at the model, this can cause some confusion when thinking about organisations (e.g. police forces) that undertake functions within both the forensic community and the law enforcement community. It is important to remember that the yellow boxes in the model represent the functions within a given country not specific organisations.

- Forensic preparedness is an important integral part of the model.

- Following the generation of forensic data during casework, the interpretation of those results by forensic experts leads to the generation of forensic expert opinion relevant to the case. It is worth noting that the same information may be used to support a criminal investigation and later be used as part of a trial. This is represented by the mauve arrow that splits to follow two paths. At the investigation phase the forensic information might be considered to be ‘intelligence’ but at a later stage the same information may be considered as ‘evidence’ within the trial.

- The blue box in the centre of the model represents forensic databases that are often used as the key sources for the interpretation of forensic data (generated during a casework examination) leading to the generation of forensic expert opinion. National DNA databases and fingerprint databases are examples of such forensic information sources.
The raw forensic data generated during casework that arises from a scene or a laboratory examination is represented by a green arrow. That same data (to be interpreted in the context of the specific case) is also available to add to a database for future interpretation of other cases. Thus, the cycling green arrows demonstrate the way that raw forensic data is used to build databases to support future casework.

As well as computer based databases (DNA, fingerprints etc.), forensic interpretation may rely on a wide range of data sources. In some instances forensic scientists may deliberately engage in projects to make physical collections of materials of forensic interest. In other instances the collections may consist of scientific data rather than physical items. Such collections contrast with the collections arising directly from casework results but are equally important. Thus, the blue database box in the centre of the model represents all data sources that are used for the interpretation of raw forensic data.

There is a large grey box that surrounds the whole national environment. This is labelled by the phrase ‘Fitness for Purpose’ and the word ‘Oversight’ (in red text) separated by a red arrow. The concepts represented by this box are described in detail within the following section of this report and are illustrated in Figure 3.

10.5 Fitness for Purpose and Oversight

Figure 3 provides a diagrammatic explanation of the concepts that underpin the large grey box that surrounds the whole national environment as illustrated in the national model (Figure 2). The box is labelled by the phrase ‘Fitness for Purpose’ and the word ‘Oversight’ (in red text) separated by a red arrow.

In essence the box illustrates the central importance that must be given to ‘doing it properly’ (Fitness for Purpose) and the various systems that are used to make sure that ‘it is being done properly’ (Oversight). The fact that the box encloses the work of both the forensic service providers and the investigators/prosecutors emphasises that fitness for purpose and oversight on forensic matters are equally important for both communities.

The key features of Figure 3 are described below:

- Fitness for purpose is often defined as “equating quality with the fulfilment of a defined specification or a stated outcome”. With reference to the present model the stated outcome is probably best expressed as the most effective use of forensic science in the investigation and prosecution of crime in support of justice.

- With reference to the effective flow of forensic information within a given country there are many different aspects that contribute to the fitness for purpose. Firstly, as indicated above, the fitness for purpose in the application of forensic information must be demonstrated within both communities, because both communities are inter-dependent when it comes to the effective use of forensic science in the investigation and prosecution of crime.

- Secondly, fitness for purpose can only be achieved if it is fully implemented across several different areas. Although these are distinct areas there are inevitably practical inter-dependencies between the different aspects. The broad areas are (illustrated in the dark purple oval shape at the top of Figure 3):
  - Organisations (e.g. the management and governance of the agencies that are involved in the forensic work).
  - Procedures (e.g. the design and implementation of appropriate processes to ensure the efficient and effective flow of the forensic work and information).
  - People (e.g. the skills and competencies of the people who are engaged in the forensic work).
Methods (e.g. the selection of appropriate scientific methods and the operation of those methods to generate forensic results of an appropriate and consistent quality).

Oversight, in the quality context, refers to the functions or activities that keep a quality process (or any other factor influencing quality) under observation. Oversight provides a watching brief to monitor and influence fitness for purpose. This is represented in Figure 3 by the oval fitness for purpose shape being supported by the oversight box with the arrow.

The word ‘oversight’ has been chosen with considerable care as it can encompass a very wide spectrum of functionality or activity. It is a general term that at one extreme can indicate a controlling function (e.g. activity controlled by legal regulation) whilst at the other extreme it can represent a more detached evaluative function/activity (e.g. employing staff with qualifications ratified by a professional body).

There are two broad areas of oversight referred to in Figure 3 as ‘Internal’ and ‘External’ (green boxes):

- **Internal Oversight** functions/activities are those that originate inside a given organisation designed to influence the fitness for purpose of that organisation. They reflect management and governance decisions taken within the organisation. A few examples are given within the ‘Internal’ green box in Figure 3. Thus, in a forensic laboratory one would expect the staff to receive appropriate training and be assessed for competence, whilst the institute might have implemented a broad quality management system and individual scientific methods would be subject to regular quality control. In the law enforcement community (investigators/prosecutors) the internal oversight should certainly entail appropriate quality management systems and training in forensic matters.

- **External Oversight** functions/activities are those where the driving force is an external agency influencing the fitness for purpose of a given organisation from the outside. A few examples are given within the ‘External’ green box in Figure 3. There are many different organisations that operate in this area. They include professional bodies, regulatory bodies, forensic networks, accreditation organisations, standards agencies, governments (through legislation), stakeholders and customers.

In the course of the current study it has become very clear that there are always many different oversight functions/activities (internal and external) that play a part in the fitness for purpose for any given organisation (or more widely across a given country). Further, it is clear that there are enormous differences in the types of external oversight that operate in different European countries. This latter complexity, in its own right, tends to act as a general obstacle to forensic cooperation in many different areas. For example, there are many diverse mechanisms across Europe (involving many different external bodies) by which forensic experts are considered to be acceptable to the local courts.

The double-headed purple ‘Influence’ arrow (and the yellow box below it) in Figure 3 represents the interactivity between the internal and the external areas of oversight. It is not unexpected that the many different types of external oversight have a very significant influence on the various types of internal oversight that are implemented within a given organisation. These influences may take many forms and some of these are listed in the yellow box as follows:

- the agreement of common standards,
- the issue of guidelines,
- the production of recommendations on best practice,
- the implementation of regulations,
- the maintenance of registers (e.g. lists of acceptable forensic experts, forensic witnesses, qualified persons),
- the organisation of work activity to identify the best methods for conduction particular forensic examinations and the subsequent harmonisation of methods.

N.B. Many of these influences may be based on national initiatives (or even regional or local initiatives within a given country) e.g. best practice guidelines are issued by a professional body within a given country. In other situations the influences may be based on international initiatives e.g. international accreditation standards.

The application of international influences (standards, guidelines, best practice, regulations etc.) is to be preferred from the viewpoint of providing the more rapid movement towards a common fitness for purpose in the effective application of forensic science across Europe, which in turn would greatly facilitate European forensic cooperation. Clearly, the agreement of common International / European ways of working requires much coordinated work and a willingness from all parties to engage. A further important factor is to ensure that the resulting agreement (standards, guidelines, best practice, regulations etc.) is sufficiently detailed to offer robustness in its implementation. Problems of this type have been encountered before, where general international standards (ISO17025) have been applied to forensic laboratories in many different countries but local accreditation agencies have implemented the standards in very different ways. The solution of this particular problem appears to be the creation of some supplementary documentation to provide the link between the international standards and their application within a specific specialised area (i.e. forensic laboratories). This point is picked up in the recommendations of this final report.

- As indicated above the purple ‘Influence’ arrow in Figure 3 is double-headed to represent the fact that the internal oversight (as adopted within an individual organisation such as a forensic laboratory, say) can also have an influence on the agencies that provide the external oversight. This is, perhaps, not such an immediately obvious factor. The key point here is that the deep understanding of the operational forensic environment and the main residue of forensic expertise rests within these organisations. Thus, the long-term identification of the best ways to achieve fitness for purpose will be achieved by the cooperative efforts of organisations working at the operational interface of forensic science. The practical difficulty is to find ways to distil this widespread operational expertise into the useful tools (standards, guidelines, best practice, regulations etc.) that can be adopted by the external oversight agencies.

10.6 The Basic International Model

Figure 4 shows the basic thinking behind the international forensic cooperation model. It uses the national model (Figure 2) as the starting point and adds the double-ended dark grey arrows to represent the cooperation that takes place across international borders. The key features are described below:

- This basic version of the model shows eight ‘forensic cooperation arrows' labelled A to H. These demonstrate the diverse areas where international forensic cooperation activity takes place thus providing a visual categorisation of the different types of forensic cooperation.
- The arrows on the left of the model (A to E) represent international forensic cooperation activity that takes place within the forensic community (i.e. between
forensic service providers). The arrows on the right (F to H) represent international forensic cooperation activity that takes place within the law enforcement community (i.e. between investigators and prosecutors).

- The following list provides a brief overview of the different types of international forensic cooperation represented by the double-ended grey arrows in Figure 4.
  - **Arrow A** - A forensic provider in one country supports a forensic provider in a second country to achieve a state of preparedness ready to deliver appropriate forensic casework services (at scenes or in the laboratory).
  
  - **Arrow B** - A forensic provider in one country supports a forensic provider in a second country to deliver casework scene examination services at a time of need. This is likely to represent a situation where the forensic resources in a country are exceeded (after a major terrorist incident, say). An example of such activity might involve the deployment of a specialised scene examination team in a different country.
  
  - **Arrow C** - A forensic provider in one country supports a forensic provider in a second country to deliver casework laboratory examination services at a time of need. This is likely to represent a situation where the forensic resources in a country are exceeded (after a major terrorist incident, say) or where particular forensic skills are not available. Such activity might involve the transfer of exhibits to a different country for examination, or the secondment of forensic experts to work in a forensic laboratory within the original country.
  
  - **Arrow D** - A forensic provider in one country supports a forensic provider in a second country to interpret the results from a specific forensic casework examination. This supports the generation of forensic expert opinion. This is likely to represent a situation where a country needs to access particular levels of specialised expertise in forensic interpretation not available within their own country at that time when a critical casework situation arises. [In the longer term such expertise might be permanently acquired by support in the area of preparedness through training, perhaps - Arrow A.]
  
  - **Arrows E and F** - These two arrows represent the international sharing of forensic databases and forensic collections that are used for the interpretation of forensic findings. The data sources might consist of electronic databases (DNA or fingerprint database) or physical collections that have been created within a given country. The sharing of the information can involve different mechanisms and one such approach is to create a common data source between two countries (e.g. a shared database where both countries can add to the data and search the data). Alternatively, the sharing of such data sources might involve agreements between the countries to search each other’s data sources on request.

The existence of two arrows (E and F) to represent forensic cooperation in the area of forensic data collections reflects the diverse issues associated with the ownership and control of such data collections. Some forensic data collections exist under the ownership/control of the forensic community. This is almost exclusively the case when considering physical collections of materials that interest forensic scientists. In contrast, national electronic forensic databases (e.g. DNA and fingerprints which include data relating to named people as well as crime scenes) are generally owned/controlled within the law enforcement community. Thus, the access to a forensic database/data collection may involve either the forensic community or the law enforcement agencies.
enforcement community depending on the nature of the information content. This explains the representation of this data exchange within the model by two arrows involving the two different communities.

The complexity of accessing data collections in a different country can be illustrated by considering an example involving DNA. In a given case consider a situation where a swab recovered from a scene leads to the generation of a full DNA profile. This work is conducted by a forensic provider. There is a need to compare this DNA profile with other scenes and with people contained within a DNA database held in a different country. This will enable the forensic expert to provide a comprehensive expert opinion as to what may have happened at the scene. In general, forensic service providers are not involved directly in making the requests for access to overseas DNA databases. Such requests are generally passed on to the investigators/prosecutors involved with the case who process the request through appropriate channels. Subsequently, the results return (via the investigators/prosecutors) to the forensic provider such that the forensic expert can use the information to formulate their expert opinion.

- **Arrow G** - Investigators in one country support investigators in a second country during the investigation of criminal activity. In general this cooperation will involve the exchange of information that represents ‘forensic expert opinion’ originating from a forensic provider e.g. “there is forensic information that links a given named individual to a given crime within our own country”. In this respect, forensic information will generally be shared alongside other intelligence information obtained from different sources.

- **Arrow H** - Prosecutors / investigators in one country support prosecutors / investigators in a second country when collecting together evidence in preparation for a potential prosecution trial. It involves the exchange of information (evidence) that represents ‘forensic expert opinion’ originating from a forensic provider. Prosecution cases can often be strengthened by building up evidence from forensic work arising from crimes committed in more than one country. A key decision to be made is the country where any trial will be held.

- The model represents forensic cooperation across international borders. Nevertheless, some countries have many different forensic service providers or geographical/political law enforcement structures that complicate the internal forensic cooperation inside their own country. In these situations the general concepts within the model can also be used to consider the forensic cooperation interfaces operating within a single country.

### 10.7 Further Development of the International Model

Figure 5 shows further developments of the basic international model previously described (Figure 4). The key features are described below:

- In this version there have been two minor amendments to the underlying national model as follows:
  - The ‘Investigate’ box has been replaced by two boxes labelled ‘Investigate (Proactive)’ and ‘Investigate (Post Crime)’. The change stresses the fact that law enforcement investigation activity may often start when a crime has been committed but there are also circumstances (particularly with serious international crime e.g. terrorism, organised crime) when investigations are pro-active and begin before any physical crime takes place. Such
investigations are aimed at disrupting criminal activity at the earliest possible stage. Such pro-active investigations are generally conducted by security services and covert policing units. Forensic science can contribute to both pro-active and post-crime investigations and hence the mauve ‘forensic expert opinion’ arrow in the model now branches to support investigators/prosecutors in three areas.

- A new yellow box has been added to the right hand side of the national model labelled ‘Defence’. In this way, the forensic contribution to the trial is represented by two overlapping boxes ‘Prosecution’ and ‘Defence’. This modification stresses the point that forensic expert opinion which is objectively and impartially formed on behalf of the court, the prosecution or the defence, is really about serving the effective administration of justice.

- The splitting of the ‘Investigate’ box into two means that there are now 9 double-ended dark grey forensic cooperation arrows (rather than 8, previously). The arrows are still labelled A to H but the single investigate arrow (G) has now been replaced by two new arrows G1 and G2.

- The forensic cooperation arrows associated with the sharing of forensic databases and collections (Arrows E and F) each now have additional blue boxes attached representing ‘International Forensic Databases’. These are databases where participating countries have direct access to a common repository of forensic data. The presence of two international forensic database boxes reflects the different ownership/control issues surrounding such databases (the forensic community or the law enforcement community).

- Initial evidence gathering has established that a significant proportion of international forensic cooperation takes place by direct personal communication between individual people working in relevant fields (e.g. forensic scientist to forensic scientist or investigator to investigator). Further, this forensic cooperation activity appears to be most active when the individuals know each other through networking and have reached a position of mutual trust. Thus, the dark grey forensic cooperation arrows in the model often link directly from person to person. Thus, much current international forensic cooperation appears to be initiated by telephone conversations and emails between individuals who already know each other.

- In addition to person to person links, there are several key international agencies that play a part in facilitating forensic cooperation. These agencies are shown on the model in light blue.

  - In the forensic community the two key facilitating organisations for Europe and elsewhere in the world are:
    
    European Network of Forensic Science Institutes (ENFSI)
    International Forensic Strategic Alliance (IFSA)
  
  - In the law enforcement community the three key facilitating organisations for Europe and elsewhere in the world are:

    Europol
    Interpol
    Eurojust

- The importance of negotiated European and international agreements in the sharing and the exchange of forensic data and other areas of forensic cooperation is represented in the model by the green box labelled ‘Agreements – European & International’. Such agreements can involve a small number of countries working together or a much wider international initiative. The Prüm Treaty was a good
example of an agreement that had a significant impact on forensic data exchange for the countries involved (see Section 13.2).

10.8 Application of the Model to the Study Work Plan

The development of the initial working model for international forensic cooperation proved to be a valuable step forward at an early stage in the work of the study team. It provided a clear focus for the evidence gathering stages of the work by categorising the complex areas of forensic cooperation. Within the various different types of forensic cooperation that were identified through the model, the study team aimed to gather practical examples of such activity and thereby understand the factors that have helped or hindered such cooperation.

With this view in mind the structured questions and questionnaires produced by the study team (see Appendices One to Five) were drafted to seek out responses that help to populate the model. Further, the model helped to identify areas where the study team initially had limited understanding such as the detailed international protocols for the exchange of data involving organisations such as Europol and Interpol. With such insight the study team was able to recognise areas where extra work was needed to help overcome knowledge gaps and thereby continually refine the model.
Modelling Forensic Cooperation (Fundamental Concepts)

Preparedness

Scene & Laboratory Work

Forensic Data

Interpretation

Expert Opinion

Cooperation Between Forensic Service Providers

Cooperation Between Investigators & Prosecutors
**FIGURE 2**

**THE NATIONAL MODEL**

- **PREPAREDNESS**
  - Scene
  - Laboratory
  - Data
  - Interpret
  - Expert Opinion

- **National Processes**
  - Forensic Service Providers

- **FITNESS FOR PURPOSE**
  - Trial
  - Investigate

- **OVERSIGHT**
  - Prosecution

See Separate Diagram
FIGURE 3  FITNESS FOR PURPOSE

FITNESS FOR PURPOSE

- Organisations
- Procedures
- People
- Methods

OVERSIGHT

EXTERNAL

- Professional Bodies (Scientific) e.g. Publication & Peer Review
- Professional Bodies (Forensic) e.g. ENFSI
- Regulatory Bodies
- Standards Agencies
- Accreditation Organisations
- Certification Agencies for Forensic Practitioners
- Expert Witness Lists
- Academic Qualification Authorities
- Vocational / Professional Qualification Authorities
- The Law (e.g. Health & Safety Matters)
- Stakeholders / Customers

INFLUENCE

STANDARDS
- Standards
- Guidelines
- Best Practice
- Regulations
- Registers
- Harmonisation
- International, National or Local

INTERNAL

- Implementation of Quality Management Systems
- Implementation of Quality Control Procedures
- Validation of Methods
- Assessment of Competence
- Training of People
FIGURE 4  THE NATIONAL MODEL (SHOWING INTERNATIONAL COOPERATION)

Fitness for Purpose

Oversight

Preparedness

Crime Investigators

Prosecution

International Cooperation

Forensic Service Providers

Expert Opinion

Investigate

Databases

Laboratory

Scene

International Cooperation

A

B

C

D

E

F

G

H

PREPAREDNESS

FITNESS FOR PURPOSE

OVERSIGHT
FIGURE 6 OVERVIEW OF STUDY METHODOLOGY

Methodology - Evidence Collection

- Directors of ENFSI Institutes
- Chairs of ENFSI Expert Working Groups
- National Correspondents for Terrorism Matters
- Europol Liaison Bureaus
- Personal Contacts
- IFSA

Questionnaires & Structured Interviews
11 Evidence Collection and Methodology (Overview)

The study inception report (January 2008) and the study interim report (June 2008) outlined the approaches that would be taken by the study Team in delivering the EC contract and thereby presenting its final conclusions and making recommendations.

In the early stages of the work the personal expertise and knowledge of the study team members has been used as the foundation for the initial planning and scoping of the work. This initial planning has been supplemented by networking activity by the study team members with a wide cross section of the forensic and law enforcement communities to help ensure that the initial approach is well founded.

Figure 6 gives a pictorial representation of the final methodology that has been used for the work. It is based on consultation across a broad stakeholder base. The work represented a series of overlapping tasks with opportunities taken to refine the approaches along the way in response to initial outcomes.

In reviewing the initial thoughts surrounding the methodology (outlined in the study inception report) several clarifications and refinements to help better facilitate the work and to ensure that the outcomes fully met the objectives of the contract were identified. These various clarifications and refinements can be summarised as follows:

1. Recognition by the study team at an early stage that the forensic cooperation model was a critical starting point in framing and designing the detailed questions to be used in the evidence collection process. [This general point about the forensic cooperation model has been discussed in the previous sections of this report.]

2. The forensic cooperation model emphasises the many different areas of forensic cooperation and the diverse agencies that take part in that cooperation. Consequently, there are many different contact points and interfaces between these various agencies where forensic data and/or forensic expert opinion is discussed, exchanged and utilised. It is the potential obstacles at these numerous complex interfaces that determine the overall effectiveness of forensic cooperation. Thus, in helping to understand the obstacles to international forensic cooperation, the evidence collection was focused to address:

   • WHAT? - the exact nature of the forensic information involved in the cooperation. This might include:

     - raw forensic data (arising from a specific forensic casework examination),
     - forensic expert opinion (arising from the interpretation of the results from a specific casework examination),
     - forensic data collection (an electronic database or a physical collection used to support the future interpretation of forensic casework results),
     - forensic know-how (expertise and experience related to forensic matters).

   • WHY? - the reason for the desired cooperation (e.g. to access forensic expert opinion for a specific case to provide intelligence in support of an international investigation; the use of raw casework forensic data to create a shared national or international forensic data collection).

   • WHO? - the agencies involved at the interface where cooperation is desired (between forensic laboratories, between investigation agencies, between a forensic laboratory and an investigation or prosecution agency etc.).
3. Recognition that it was most important to tailor the questions/questionnaires for specific stakeholders.

4. Recognition that the quality of evidential responses can be strongly influenced by the quality of the guidance and support that was provided to ensure that the respondents fully understood what was required and were positive about their contribution towards the overall project.

5. An increase in emphasis on interactive structured interviews (face-to-face or telephone based) with targeted individuals alongside the general questionnaire approaches to ensure that key issues were drawn out and explored in sufficient depth to throw extra light on the topic.

6. Questions (within questionnaires or structured interviews) that focused on the practical experiences of the individuals relating to forensic cooperation and the categorisation of those experiences within the forensic cooperation model. The questions further focused on the key learning points (good and bad) that have arisen from those practical experiences.

7. It was discovered that various groups within the European forensic community had conducted some useful surveys over recent years that provide useful background information to feed into the present study. In some instances the work remains incomplete but nevertheless contains valuable information. Such work has often been supported by ENFSI. To date, access to this material has often been limited as much of it remains unpublished. Active steps were taken by the study team to hunt out such survey material.

Examples include:
- “Report on the international exchangeability of forensic data using databases” (ENFSI, September 2006)
- “A Summary of Judicial Systems of European Fibres Group (EFG) Member Countries” (ENFSI Fibres Expert Working Group, October 2004)

8. As the study has progressed it proved to be valuable to segment some of the work activity within the study team for greater efficiency. A sub-group was formed to explore the role currently played by international agencies (Europol, Interpol, Eurojust). A further sub-group was formed to look at forensic training matters. Most work activities remained shared across the full team.

The work has continued as a set of overlapping tasks. This section details the specific activities that were undertaken.

### 11.1 Questions to Directors of ENFSI Institutes

The questionnaire prepared for the directors of ENFSI institutes is shown in Appendix One. The questionnaire was sent out to the 54 directors by email on 29 May 2008. Table 1 contains the list of institutes being surveyed.

The ENFSI directors met for their Annual Meeting in Rome (13-16 May 2008) and by arrangement with Dr David Werrett (the ENFSI Chairman) and the ENFSI Board, Dr Richard Gill was invited to address the meeting on 14 May 2008. Dr Gill’s visit to Rome was financially sponsored by ENFSI. The address provided an opportunity to brief the directors about the underlying objectives of the EC contract, to thank them for their support of the ENFSI Expert Working Group (EWG) chairs when completing their questionnaires and to explain, in detail, the reasoning behind the director’s questionnaire to be issued later that month.
As well as Dr Gill’s attendance for the first two days of the ENFSI Annual Meeting, both Dominique Saint-Dizier and José Miguel Otero Soriano attended the whole meeting in their respective capacities as forensic directors. The presence of three study team members at the ENFSI Annual Meeting provided many opportunities for networking and follow-up discussions about forensic cooperation as well as opportunities to test the thinking behind the methodology being adopted for the study. In addition, other study team members spoke with individual ENFSI directors as opportunities arose to highlight the significance of this work.

The Questionnaire for the institute Directors is in two parts:

**A Survey Relating to the Current Preparedness within your ENFSI Institute (Part A)**

These questions were aimed to provide a broad survey of ENFSI institutes with reference to their preparedness to deliver forensic services in the event of a terrorist incident. Thus, these questions ask each director to assess the preparedness of their own forensic institute. [Additional views relating to the preparedness of the institutes have been gathered through the questionnaires to the EWG chairs – see below.]

**Practical Experience of National / European / International Forensic Cooperation (Part B)**

These questions are aimed at gathering evidence on the current obstacles to forensic cooperation (both nationally and internationally). They are designed to gather information about practical experiences of forensic cooperation (the personal experiences of a director or their knowledge of experiences elsewhere in their country). Thus, the focus in this section of the questionnaire is on the key learning points (what worked, what didn’t work and why?) arising from practical experiences as viewed from the director’s own country (rather than concentrating on the specific forensic institute).

**11.2 Questions to ENFSI Expert Working Group (EWG) Chairs**

The questionnaire prepared for the ENFSI Expert Working Group (EWG) chairs is shown in Appendix Two. The questionnaire was sent out by email to the 16 EWG chairs on 5 February 2008. **Table 2** provides a list of the individuals involved. Arrangements were made for the questionnaire to be accompanied by a letter from the ENFSI chairman on behalf of the ENFSI Board encouraging the EWG chairs to participate in the survey.

The Questionnaire for the ENFSI EWG chairs is in two parts:

**Preparedness** (Part I)

Each ENFSI EWG is comprised of experts within a given forensic discipline drawn from forensic institutes across Europe. Thus, each EWG chair was perceived to be in a unique oversight position to have a view on two aspects of preparedness:

- The broad status of their specific scientific discipline across Europe.
- The general state of forensic preparedness within individual ENFSI institutes.

From this viewpoint, the questions in Part I of the questionnaire were designed to address both aspects of preparedness. With respect to the preparedness of individual ENFSI institutes, the respondents were encouraged to express their views with reference to a numbered list of ENFSI institutes included within the questionnaire.

**Cooperation** (Part II)

The EWG chairs are all well respected forensic scientists within their own fields of expertise and thereby are likely to have had wide exposure to high profile casework
that may, in some instances, have involved international forensic cooperation. Thus, Part II of the questionnaire was designed to ask about such personal experiences of forensic cooperation across international borders.

Completed questionnaires were received from all 16 EWG chairs. Some responses needed further clarification to ensure that the questions had been fully understood and a further work stream was undertaken where study team members made direct contacts with the relevant EWG chairs and held further discussions.

11.3 Questions to National Correspondents for Terrorist Matters

The questionnaire prepared for the National Correspondents for Terrorism Matters (NCTs) and Eurojust Contact Points is shown in Appendix Three. The questionnaire was sent out by email from Eurojust on 11 March 2008. Nine countries were targeted corresponding to the seven home countries of the study team members (6 EU Member States plus one Candidate Country - Turkey) along with a relatively recent entrant into the EU (Poland joining in 2004) and a further Candidate Country (Croatia). For the two Candidate Countries, there are no Eurojust NCTs, so the questionnaire was distributed instead to Eurojust’s Contact Points in those countries.

The questionnaire was deliberately drafted to obtain views about the application of forensic science from the perspective of investigators and prosecutors rather than from the forensic community. In some instances study team members have made direct contact with the NCT within their own country for extended discussions.

Responses were received from all nine countries, as follows:

- Croatia
- France
- Germany
- Poland
- Spain
- Sweden
- The Netherlands
- Turkey
- UK

With the NCT for The Netherlands, Peter de Bruyn also conducted a face to face interview.

11.4 Questions to Countries Outside of Europe

Two approaches were taken to gather evidence relating to forensic cooperation in countries outside of Europe. Firstly, contact was made with the member organisations of the International Forensic Strategic Alliance (IFSA) asking for their support with the study by helping to coordinate the responses from their respective regions of the world. Outside of Europe the IFSA members are:

- The American Society of Crime Laboratory Directors (ASCLD)
- The Senior Managers of Australian and New Zealand Forensic Laboratories (SMANZFL)
- The Academia Iberoamericana de Criminalistica y Estudios Forenses (AICEF)

The second approach was to make use of worldwide networking contacts known by the study team members. In taking this approach we looked to target individuals who were known to have engaged in international forensic cooperation at some time in the past.
The questionnaire prepared for the use with countries outside of Europe is shown in Appendix Four. The focus is the broad practical lessons that can be learned from previous situations where forensic laboratories have provided (or received) support in specific circumstances following major incidents (terrorist attacks, natural disasters etc.). In general the questions in this section have been deliberately framed to be “broad” and “open” and thereby encouraging the respondents to provide evidence over a broad range of factors.

Thus, questionnaires were distributed to the following regions (and to the United Nations) involving the various contact points and respondents indicated below:

**Australia / New Zealand (SMANZFL Region)**
- James Robertson (National Manager Forensic & Technical, Australian Federal Police, AFP)
- Alastair Ross (the Director of the Victoria Police Forensic Science Department and the Chairman of SMANZFL).
- Vincent Otieno Alego (Team Leader, Chemical Criminalistics, AFP)
- Herman Metz (Manager Forensic & Data Centres Business Support, Forensic & Data Centres, AFP)

**North America (ASCLD Region)**
- Stephanie Reilander (Deputy Director, Centre of Forensic Sciences, Ontario, Canada and the President of ASCLD)
- Gregory Carl (Chief of the Federal Bureau of Investigation, FBI, Explosives Unit, FBI Laboratory Division, USA)

**Central & South America (AICEF Region)**
- Through the AICEF Secretariat organised by José Miguel Otero Soriano, who also translated the questionnaire into Spanish.

**UN**
- Barbara Remberg (Laboratory and Scientific Section, UN Office on Drugs and Crime, Vienna, Austria)

The short timescale of the current study (one year) meant that this work with countries outside of the Europe could only achieve a very basic overview of worldwide international forensic cooperation. The purpose of this work stream was to obtain a preliminary feel as to whether the obstacles to forensic cooperation across the whole globe are the same (or different) to those experienced within Europe. The expectation was that the problems would be very similar but that needed to be tested.

### 11.5 Structured Interviews with Personal Contacts of the Study Team

The forensic cooperation model highlighted the importance of finding efficient and effective ways of collecting the learning points relating to the practical experience of forensic cooperation. A work stream was conducted whereby study team members conducted structured interviews with networking contacts with experience of overseas forensic cooperation. The aim was to seek examples of all the various types of forensic cooperation identified within the forensic cooperation model.

These structured interviews were conducted using the questions contained within the questionnaires (Appendix Four) originally designed for Countries Outside of Europe and International Forensic Bodies.
11.6 Interactions with Europol & Interpol

When the study team reviewed the preliminary versions of the forensic cooperation model it quickly highlighted several areas where there were significant gaps in our combined knowledge and understanding. One such area was the detailed workings of Europol and Interpol in facilitating forensic cooperation between countries. This represented a significant element within the structure of the model that needed illumination.

With this aim in mind, a series of general questions were compiled to act as a starting point for discussions with Interpol and Europol (Appendix Five). They include questions about the validity of the current forensic cooperation model, the processes that underpin the roles of these organisations in supporting international cooperation and the nature of existing international forensic databases.

From the early stages of the study, various communication plans were activated to establish contacts with the appropriate individuals within both Interpol and Europol hoping to engage them with the study as stakeholders in the field of forensic cooperation. It was not until June 2008 when both Interpol and Europol formally confirmed their willingness to engage with the study. Inevitably, this significant time loss has limited the work achievable with the two organisations in the remaining half of the study. Nevertheless, the contact points have been established and future work on forensic cooperation can be built upon the initial foundations that have been laid.

INTERPOL

Formal contacts with Interpol for the study have taken place through Werner Schuller (Interpol Assistant Director, Forensic Support and Specialised Technical Databases Sub-Directorate) based at the General Secretariat in Lyon, France.

Interpol's input to the study has involved discussions between Werner Shuller and the study team member based in Lyon, Dominique Saint-Dizier. After the late formal engagement in June 2008, the interaction with Interpol has been limited by the difficulties of scheduling enough contact time with the key Interpol staff involved. There have been several contributions:

- Support to the drafting of a detailed description of Interpol and its products and services relevant for the study.
- Some preliminary responses to the questions posed in Appendix Five.
- Feedback on the forensic cooperation model developed by the study team.

Further interaction with Interpol was established when one the study team members (Richard Gill) delivered a presentation about the forensic cooperation study at Interpol's First Crisis and Major Events Conference (October 2008) held at the General Secretariat building in Lyon. Networking activity at the conference provided good opportunities for discussions with Interpol staff about international forensic cooperation.

Thus, the interaction with Interpol as a stakeholder to forensic cooperation has started at a relatively slow pace. Nevertheless, there is a clear willingness to engage and to discuss the ways that all the parties identified in the forensic cooperation model can work together for more efficient and effective mutual support.
EUROPOL

Formal contacts with Europol for the study have taken place through Dr Pierre Van Renterghem (First Officer Forensic Science - Europol Information Management Coordination - IMT5) based at Europol HQ in The Hague, the Netherlands.

Europol's input to the study has resulted from discussions (phone, email, meetings) between a study team representative (Phil Hicks, Eurojust) and staff at Europol. There have been several aspects to this input:

- Discussions about the forensic cooperation model developed by the study team at various stages of its development with Dr Pierre Van Renterghem and Alexander Theus (First Officer, SC5 – Terrorism Unit, Europol).
- The provision of a detailed description of Europol and its products and services relevant for the study.
- Further written reports based on Europol's knowledge and experience.
- Europol arranged for the questionnaire initially prepared for the Eurojust NCTs (Appendix Three) to be sent out to the Europol Liaison Bureaus. The questionnaires were sent to all 27 EU Member State Liaison Bureaus and also to the non-EU State Bureaus. The Liaison Bureaus were given the freedom to forward the questionnaire to appropriate persons in their own country. But, to limit any duplication of effort, they were also told that the same questionnaire had previously been sent to the Eurojust NCTs. Europol also made the arrangements to receive the responses from the Liaison Bureaus and thereafter conducted the full evaluation of the results ready for use by the study team.

11.7 Detailed Work Programme (Study Timeline)

Table 3 provides a full overview of the work streams that have been conducted by the study team over the last year including the timelines for the various tasks. The work phases have included a knowledge capture exercise, the Europe wide surveys and the analysis and evaluation of the results.

Similar tables were presented in the study inception report (January 2008) and the study interim report (June 2008), where some or all of the information presented was the forward looking work plan. Overall the total quantity of work delivered during the project has been a close match to that envisaged from the outset. Nevertheless, there has needed to be some rescheduling of individual tasks to take account of changing circumstances. Furthermore, in some areas, extra work has been undertaken beyond the original plans e.g. the extended work on the forensic cooperation model and the extra questionnaires sent to the Europol Liaison Bureaus.

The most significant difficulty with implementing the original study plan arose with the interactions with Europol and Interpol. It was June 2008 before official confirmation was received from both Europol and Interpol to indicate their willingness to formally engage with the project. The subsequent interaction with Europol has been very fruitful, despite the short timescales, but the interaction with Interpol has been limited by the difficulties of scheduling enough meeting time with the key Interpol staff involved. Thus, there remains much to be done in further exploring the forensic cooperation model and other general aspects of forensic cooperation with Interpol in the future.

As well as the formal work streams presented in Table 3, the study has benefited greatly from the personal knowledge and experience of the individual study team members. This has greatly contributed to the stimulating discussions that have taken place at the five study team
meetings which took place over the course of the contract (Table 3 and Appendix Six). Clearly, all study team members engage in regular professional activities associated with their positions within their respective organisations. Appendix Six presents a list of the relevant conferences and meetings attended by study team members over the last year. These meetings are not directly related to the contract and have not been funded from the project finances, but by their host organisations. Nevertheless, these meetings have provided diverse opportunities that have supported the project. These opportunities have included the updating of knowledge in relevant forensic fields, the making of new international contacts through networking and the testing of ideas through discussions with experts in various fields.
12 Forensic Cooperation - Facilitating Organisations

This chapter of the final report provides a broad review of the information gathered by the study team about the various organisations and agencies that play significant roles in facilitating forensic cooperation across Europe. These organisations are the European Union (EU), Europol, Eurojust, Interpol, G8, the United Nations (UN), the European Network of Forensic Science Institutes (ENFSI), other regional forensic networks and the European Police College (CEPOL). The positioning of these organisations within the flows of forensic information that occur between the forensic community and the law enforcement community can be seen within the forensic cooperation model (see European/International Forensic Cooperation Model, Chapter 10 of this report).

The information has been gathered in many different ways. It includes information collected from open sources (publications, the internet, presentations at conferences etc.) along with the pooled personal knowledge of study team members. Further, proactive work has been undertaken to interact with the various organisations, speaking with their staff in relevant departments, to help fully understand the various functions of relevance to forensic cooperation.

Collecting together this information has provided a good opportunity to take a strategic overview of the various functions conducted by these organisations in influencing the world of forensic science. Many of these organisations have many functions whereby forensic science represents only a relatively small aspect of their work but, even in these instances, their specific influence on forensic science can be very significant. Our strategic approach has delivered some interesting observations about the overlaps and the gaps. Thus, the following text is not purely descriptive but provides some commentary regarding the strengths and weaknesses of the different activities.

The relatively short timescale of the study has restricted the amount of time that could be devoted to thoroughly understanding the work of these various organisations. The study team believes that there is much merit to be gained by continuing the discussions with these various facilitating organisations to help further understand their activities and to explore how future progress can be made in enhancing forensic cooperation. In addition, there may yet be other organisations that have not yet been recognised as being significant players in facilitating forensic cooperation.

This Chapter (Forensic Cooperation - Facilitating Organisations) needs to be viewed in conjunction with Chapter 13 (Forensic Cooperation - Current Initiatives) that looks at specific current initiatives and projects that are influencing forensic cooperation at this time or will do so in the future. The study team is not aware of any previous published work that has ever attempted to provide a systematic overview of the organisations and the current initiatives that influence international forensic cooperation.

12.1 European Union (EU)

European citizens legitimately expect national governments and the EU to guarantee their security. That security is an ever evolving notion where the threats being faced include terrorism, organised crime, the proliferation of arms, climate change and the continuity of energy supply. They must be protected from the threats and, at the same time, have equal access to justice and respect for their fundamental rights. At the EU level these issues are tackled by a department of the EC, the Directorate-General for Justice, Freedom and Security (DG JFS). This is the area of interest to the current study.

The mandate of the DG JFS is to ensure that the whole EU is an area of freedom, security and justice. More explicitly, this is explained to be an area "where the freedom of movement of persons is ensured, together with the actions that may be deemed fit to control external borders, asylum and immigration, and to prevent and fight against crime".
Like other departments in the EC, the DG JFS:

- makes proposals for EU legislation (N.B. in the area of freedom, security and justice Member States can also make proposals for legislation),
- monitors how this legislation is implemented once it has been adopted by the EU Council of Ministers.

In order to undertake its responsibilities, the DG JFS must operate within the objectives set by a common European home affairs policy. The policy provides the overall priorities and this is used as the guidance for creating a concrete action plan or road map including the timetable for adoption and implementation. Such a common policy and the action plans will include objectives that cover the full range of DG JFS responsibilities.

To date, common home affairs policies have been endorsed for periods of 5 years. From 1999-2004 the policy was provided by the Tampere Programme whilst the current policy is set by the Hague Programme (2005-2009). These multi-annual programmes are the cornerstone for driving change.

It is anticipated that a new multi-annual programme (2010-2014) will be introduced to follow on from the Hague Programme. The current timetable suggests that formal proposals for the ‘post-Hague’ programme will be presented, under the Czech Presidency in April 2009 with the expectation that the new multi-annual programme will be adopted by the EC under the Swedish presidency in the autumn 2009. A report from “The Future Group” (Freedom, Security, Privacy – European Home Affairs in an Open World”, published in June 2008, offers a set of recommendations as a major contribution towards the discussions that will eventually lead up to the final “post Hague” programme.

The current action plan associated with Hague Programme includes 10 priorities of which three are of direct relevance in the context of forensic cooperation:

- The fight against terrorism: prevention, preparedness and response.
- Privacy & security in sharing information: balancing the need to share information among law enforcement and judicial authorities with privacy and data protection rights.
- Fight against organised crime.

Over the last few years, many key initiatives in the area of improving European forensic cooperation have arisen directly from these underlying priorities identified within the Hague Programme. A good example is European Council Decision 2008/615/JHA incorporating the substance of the provisions of the Prüm Treaty into the legal framework of the European Union (see Section 13.2).

One of the key ideas formulated in the Hague Programme was the ‘the principle of availability’. This fundamental principle has had enormous implications for the exchange of forensic information, alongside other types of information. This is discussed in more detail in Section 15.4.

The work of the DG JFS in developing European legislation has played a very significant role in influencing forensic science and the environment for forensic cooperation. To ensure that all these legislative contributions from the EU were recognised and their significance was fully appreciated, a survey of the EU legal framework has been conducted to identify all those instances where EU regulations mention forensic science. The study team is not aware that such a comprehensive exercise has been attempted before. The results of this survey are presented in Appendix Seven.
12.2 Europol

Background

Europol is the European Union (EU) law enforcement organisation that handles criminal intelligence. Its aim is to improve the effectiveness and cooperation between the competent authorities of the Member States in preventing and combating serious international organised crime and terrorism. The mission of Europol is to make a significant contribution to the European Union’s law enforcement action against organised crime and terrorism, with an emphasis on targeting criminal organisations.

The establishment of Europol was agreed in the Maastricht Treaty on European Union of 7 February 1992. Based in The Hague, Netherlands, Europol started limited operations on 3 January 1994 in the form of the Europol Drugs Unit (EDU) fighting against drugs. Progressively, other important areas of criminality were added. The Europol Convention was ratified by all Member States and came into force on 1 October 1998. Following a number of legal acts related to the Convention, Europol commenced its full activities on 1 July 1999. On 1 January 2002, the mandate of Europol was extended to deal with all serious forms of international crime as listed in the annex to the Europol Convention.

Europol supports the law enforcement activities of the Member States mainly against:

- illicit drug trafficking
- illicit immigration networks
- terrorism
- forgery of money (counterfeiting of the Euro) and other means of payment
- trafficking in human beings (including child pornography)
- illicit vehicle trafficking
- money laundering.

In addition, other main priorities for Europol include crimes against persons, financial crime and cybercrime. This applies where an organised criminal structure is involved and two or more Member States are affected.

The Engagement of EU Member States with Europol

The EU Member States send one or more people (Europol Liaison Officers, ELOs) to operate the Liaison Bureaus at Europol in The Hague. These ELOs are seconded to Europol as representatives of their national law enforcement agencies. Thus, the Europol Liaison Bureaus, representing the countries of Europe, can facilitate the exchange of information amongst themselves on a bilateral or a multilateral basis. In addition, the Liaison Bureaus can facilitate the exchange of information between Europol and the competent national authorities (police, customs, immigration services etc.) in the EU Member States.

Furthermore, the Europol Convention stipulates that each Liaison Bureau must have a Europol National Unit (ENU) to maintain an operational gateway from the Member State to Europol’s services. The ENUs duties include supplying Europol with information and intelligence necessary for it to carry out its tasks, and in particular providing input for Europol’s databases. The ENUs issue requests to Europol for information and respond to requests for information. Competent authorities can make direct contact with Europol but their ENUs need to be informed at the same time.

Overview of Support Provided by Europol

Europol supports Member States by:

- facilitating the exchange of information, in accordance with national law, between the ELOs,
• providing operational analysis in support of operations,

• generating strategic reports (e.g. threat assessments) and crime analysis on the basis of information and intelligence supplied by Member States and third parties,

• providing expertise and technical support for investigations and operations carried out within the EU, under the supervision and the legal responsibility of the Member States concerned.

Europol is also active in promoting crime analysis and the harmonisation of investigative techniques within the Member States.

The Europol Convention states that Europol shall establish and maintain a computerised system to allow the input, access and analysis of data. The Convention also provides the legal framework for the management of these systems, in particular as regards data protection, confidentiality and external supervision. The Europol computerised system has three principal components:

• an information system,
• an analysis system,
• an index system.

In addition to the above systems aimed at processing personal data, Europol is developing and managing many more information products and services, either as part of or in support of its core business.

**Information System of Europol**

The Information System of Europol (IS) is a software system designed to support Member States and Europol (as well as Europol’s cooperation partners) in fighting all forms of serious international crime and terrorism. Member States may also use the data stored in the IS to combat other serious forms of crime.

The IS supports all operational activities within the Europol framework. It provides a rapid reference to information available to law enforcement agencies in the EU Member States and to Europol on suspected and/or convicted persons, criminal structures/organisations, criminal offences and the means used to commit them.

The IS provides capabilities for storing, searching, visualising and linking information related to cross-border crimes, allowing law enforcement agencies across Europe to collaborate efficiently in their investigations. The system supports automatic detection of possible hits between different investigations and facilitates the sharing of sensitive information in a secure and reliable way.

The IS was established in accordance with the Europol Convention, which stipulates that in order to perform its tasks, Europol shall establish and maintain a computerized information system, into which Member States, represented by their national units and liaison officers, may directly input data in compliance with their national procedures, and into which Europol may directly input data supplied by Third States and Third Bodies (hereafter referred to as Third Parties) and analysis data.

The IS supports automated detection of possible hits between different investigations. In case the IS detects two or more possibly identical person records, the countries/parties involved will be notified in order for them to exchange further information (fingerprints, DNA material, pictures) to assess whether the records really refer to the same natural person. This hit detection is called Cross-Border Crime Check (CBCC).

The Europol Council Decision that will replace the Europol Convention in 2010 explicitly allows the processing of DNA profiles and fingerprints within the IS. These data types are
seen as highly accurate and reliable. They have the potential to increase the business value of the IS by improving its cross matching capacity.

**Analytical Work Files**

The Analysis Work File (AWF) is the flagship of Europol's Operational Intelligence Analysis work. These are major strategic projects in Europol's areas of competence, which Member States support through the provision of national intelligence contributions. It is the primary means by which Europol offers operational analytical support to investigations within the Member States.

An AWF can be initiated by Europol, by the Management Board or by a Member State. The requirements are that the subject matter must be:

- a mandated crime area of Europol,
- affecting two or more Member States,
- with the involvement of organised crime,
- and, be in line with the Europol work programme/priorities.

The legal framework for Analysis Work Files can be found in Articles 10, 11 and 12 of the Europol Convention. In addition, the ‘Rules Applicable to Analysis Files’ further specify the modalities for the collection, processing and utilisation of AWF data.

In accordance with article 6.2.c.5, an AWF can contain identification means such as forensic identification information such as fingerprints, DNA evaluation results (to the extent necessary for identification purposes and without information characterising personality), voice profile, blood group, dental information. Up to now, such information has not been exploited. The integration of DNA profiles into the analysis process is currently being studied. Such an approach can be seen as complementary to the exchange of DNA profiles under Council Decision 2008/615/JHA (arising from the Prüm Treaty) and to the Interpol DNA gateway.

Currently, 18 AWF with a focus on certain crime areas exist. One AWF includes the possibility to store DNA data.

**Europol’s Preparedness Programme**

Europol's Preparedness Programme assures a coordinated approach in the response of Europol and the competent authorities of the Member States to a major incident in Europe. A network of counter-terrorism experts is formed by nominated counter-terrorism generalists from all Member States. If needed, this network can quickly form a First Response Team to support a Member State investigation into a major terrorist incident. The First Response Network will be based at Europol and provide decision makers with an analysis of the situation and a proposal on the way forward.

After the attacks of 11 September 2001, the EU Justice and Home Affairs Council created a Counter-Terrorism Task Force (CTTF) and tasked Europol with hosting and managing it. Following the attacks of Madrid in 2004, the CTTF was re-activated. Based on the experience with the CTTF, SC5, as responsible counter-terrorism unit within Europol's Serious Crime department, has developed the Preparedness Programme in order to provide timely effective assistance to investigations in terrorism cases of Member States.

**Knowledge Management Centre (KMC)**

Efficient cross-border cooperation is essential to the fight against serious international organised crime and knowledge management is a key concept in that cooperation. Europol puts efforts in improving knowledge management within the European Union. One of the services used for this is called the Knowledge Management Centre (KMC), an international search facility which stores uncommon and rarely used forms of investigative expertise
centrally and provides easy access to law enforcement agencies in the Member States. The KMC gathers and provides detailed information on persons and organisations which are specialised in specialist law enforcement techniques, skills and expertise using:

- Europol experts and expertise
- Experts and expert information stored in the KMC
- Information retrieved via open sources

The purpose of the KMC is to describe available expertise of an unusual nature and to keep the database updated by continuously gathering and registering new investigative developments, tools and techniques. The contact details of the expert are registered as well as the languages he or she is able to speak. This information is available on request, by contacting the information management operations unit at Europol. In this way the KMC acts as intermediary between the applicant and the expert. Once contact between them is established, the role of the KMC is over unless further support is requested.

The KMC will be renewed in 2009. The new version will integrate more sources of information and will be directly accessible to the Member States.

**Atlas Collaboration Platform**

The Atlas network gathers all European counter-terrorism units (ECTUs) that operate at national level in the EU (+ Norway and Switzerland). The aim of the Atlas network is to:

- bring all counter-terrorism units to the same (and highest possible) level of professionalism by the realisation of a structural and intense mutual cooperation,
- exchange information and promote mutual assistance in order to improve and to better co-ordinate EU activities in the field of counter terrorism,
- promote the same opportunities for success in every country,
- undertake common projects.

The Atlas network fulfils an important role in European counter-terrorism capabilities by enhancing mutual trust and reaching common standards between the special intervention units and by further professionalising counter-terrorism intervention techniques.

The Council of the EU has recognized that no single Member State has all the means, resources and expertise at its disposal to deal effectively with all the possible kinds of crisis situation requiring special intervention. A legal framework, the Council Decision 2008/617/JHA of 23 June 2008 on the improvement of cooperation between the special intervention units of the Member States of the EU in crisis situations (“Atlas Decision”), has recently been published to allow Member States to react speedily should a crisis situation arise. Moreover, the Council also recognised that special intervention units should meet regularly and organise joint training, so as to benefit from mutual experience.

Europol has developed and since 2004 has hosted the “Atlas Collaboration Platform” (ACPF) to provide the Atlas group with a fast, secure and flexible means of communication that aims at enhancing the cooperation and mutual knowledge amongst its members. The ACPF offers different functions, including a library of special equipment. Although the ACPF (and hence a role for Europol) is not specifically mentioned in the Atlas Decision, the Atlas Executive Bureau itself underlines that the ACPF is an important enabler for the exchange of mutual experience. The ACPF is a portal based collaboration platform. Each Member State consists of one or more ECTUs and each ECTU maintains its own Atlas portal. The portal is connected to a database in which each ECTU can upload its list of available materials and other technical data. Members of each ECTU can view all the published content. Further, new areas have been created to support so-called “forums” working on specific topics (e.g. entry, snipers).
The Atlas network is currently not dealing with forensic cooperation. But ECTUs are potential players intervening during the course of a terrorist event. If the forensic cooperation model developed in the present study should point towards a need to raise forensic awareness amongst the players intervening before evidence collection, then the ACPF could be an effective channel for sharing such information with the ECTUs.

**ENFSI Website for Methods and Technology for Crime Scene Investigation**

The ENFSI Website for Methods and Technology for Crime Scene Investigation is an application available through the internet. It is hosted by Europol. Further details are provided in Section 13.5.

### 12.3 Eurojust

**Background**

Established in 2002, Eurojust is the EU’s judicial cooperation unit created to help provide a high level of safety within an area of freedom, security and justice. It was established as a result of a decision by the European Council of Tampere (15 – 16 October 1999) in order to improve the fight against serious crime by facilitating the optimal co-ordination of action for investigations and prosecutions covering the territory of more than one Member State with full respect for fundamental rights and freedoms.

**Structure**

The College of Eurojust comprises 27 National Members, one from each of the European Union’s Member States. The National Members are all judges, prosecutors or police officers of equivalent competence seconded in accordance with their respective legal systems. Each National Member may be assisted by one or more people able to deputise for him.

**Tasks**

Eurojust aims to stimulate and improve the co-ordination of investigations and prosecutions between the competent authorities in the Member States and to improve cooperation between those authorities, in particular by facilitating the execution of international mutual legal assistance and the implementation of extradition requests. Eurojust supports in any way possible the competent authorities of the Member States in order to render their investigations and prosecutions more effective when dealing with cross-border crime, including terrorism.

At the request of a Member State, Eurojust may assist investigations and prosecutions concerning that Member State and a non-Member State if a cooperation agreement has been concluded with that non-Member State or if there is an essential interest in providing such assistance. To date, Eurojust has concluded cooperation agreements with Norway, Iceland, USA, Switzerland and Croatia.

**Strategy**

Beyond its purely operational work, Eurojust’s aim is to become an established centre of expertise on terrorism, following trends and patterns in all fields of terrorism including terrorism financing, cyber terrorism and nuclear, chemical and biological terrorism. To support this work, Eurojust has a dedicated counter-terrorism team focusing on issues specific to this area of criminality, including monitoring the receipt of information from the National Correspondents for Terrorism Matters (NCTs) under Council Decision 2005/671/JAI (see below) and organising strategic and tactical meetings as a platform for the exchange of information and good practice among the Member States. This could include developing good practice in the preservation and examination of potential evidence. It is, therefore, inextricably linked to forensic cooperation, which can provide some of the most compelling evidence in
criminal trials – but only if material has been handled, stored and examined in ways that ensure the admissibility of the results of forensic examination in subsequent judicial proceedings.

Operational Work

Insofar as forensic material, and/or the analysis of that material, may be relevant to a judicial investigation into, or prosecution of, criminal activity affecting more than one Member State (or affecting at least one Member State and a non-Member State in the circumstances mentioned above), then it is material that could fall to be considered at Eurojust when exercising its tasks of facilitating optimal coordination and/or cooperation between judicial authorities. In the aftermath of a terrorist incident, for instance, the forensic capabilities of one member state may be overwhelmed or, alternatively, that member state may not have the expertise to carry out the specific type of forensic examination or analysis that the case requires.

In these circumstances, and in order to offer the widest possible support to the Member States in operational cases, Eurojust can facilitate agreement at a judicial level for forensic strategies to be implemented, such as sending items to other Member States for forensic examination. By reaching agreement at judicial level, legal requirements, such as continuity of evidence (also known as ‘chain of custody’) can be discussed and agreed upon in order to ensure that both the facts of, and the results of, forensic examinations carried out on behalf of the affected Member State are admissible in later judicial proceedings in the affected Member State.

National Correspondents for Terrorism Matters (NCTs)

In accordance with Article 2(2) of Council Decision 2005/671/JHA of 20 September 2005, all Member States are required to appoint an authority as Eurojust National Correspondent for Terrorism Matters. This authority must take the necessary measures to ensure that Eurojust is informed of at least:

- Data which identify the person, group or entity that is the object of a criminal investigation or prosecution
- The offence concerned and its specific circumstances
- Information about final convictions for terrorist offences and the specific circumstances surrounding those offences
- Links with other relevant cases
- Requests for judicial assistance, including letters rogatory, addressed to or by another Member State and the response.

Further, each Member State shall ensure that any relevant information included in documents, files, information, objects or other forms of evidence seized in criminal investigations or criminal proceedings in connection with terrorist offences can be made accessible to the authorities of other interested Member States as soon as possible.

Thus, if a Member State has received forensic information in the course of a criminal investigation or prosecution in connection with terrorist offences and that Member State considers the forensic information to be “relevant information”, then it is under an obligation to make the information accessible to the authorities of other interested Member States as soon as possible. However, the Member State may not be in a good position to assess whether other Member States are interested and whether the forensic information is relevant. Furthermore, there is currently no practical mechanism by which the forensic material can be made readily accessible to other Member States.

Eurojust meets regularly with the network of NCTs. Eurojust also participates in conferences, offering training to magistrates and prosecutors on terrorism-related issues. It has developed a good relationship with the EU Counter-terrorism Coordinator and also develops and maintains contacts with non-EU countries on terrorism matters.
12.4 Interpol

Background

Created in 1923, Interpol is the largest international police organisation in the world with 187 member countries. Its aim is to facilitate cross-border police cooperation, and to support and/or assist all organisations, authorities and services whose mission is to prevent or combat international crime. Actions are taken within the limits of the laws existing in different countries and in the spirit of the Universal Declaration of Human Rights.

Structure

As defined in the article 5 of its Constitution, Interpol is organised as shown:

Both the General Assembly and the Executive Committee are involved in the Governance of the organisation. The General Assembly meets annually and comprises delegates appointed by each member country. It takes all decisions related to policy, resources, working methods, finances, activities and programmes. The 13 members of the Executive Committee (the president, 3 vice-presidents and 9 delegates) are elected by the General Assembly and cover the different geographical regions.

The General Secretariat is located in Lyon (France) and operates 24h/day and 365 days/year. Officials from more than 80 member countries work side-by-side. Interpol also has six sub-regional Bureaus in Argentina, Côte d'Ivoire, El Salvador, Kenya, Thailand and Zimbabwe. It also has a liaison office at the United Nations (New York, USA).

Each Interpol member country maintains a National Central Bureau (NCB) staffed by national law enforcement officers. The NCB is the designated contact point for the General Secretariat, the regional offices and other member countries requiring assistance with overseas investigations. The NCB is typically positioned within the member country's national police agency or investigation service. Alternatively, it may be positioned under the jurisdiction of the ministry or the department in charge of public security or justice.

Each NCB is connected to the Interpol I-24/7 communication network. In this way they can search and cross-check data having direct access to databases (e.g. fingerprint, DNA, lost or stolen travel documents).

Interpol Key Functions

Interpol has four main functions:

- Secure global police communication services achieved by managing a global police communication system (I-24/7) which enables authorised law enforcement users in all member countries to access police data instantly through a secure network. It provides all NCBs with access to Interpol's databases and services.
• Operational data services and databases for police achieved by maintaining a range of databases covering key data such as names of suspected terrorists, fingerprints, DNA profiles, stolen or lost ID and travel documents and wanted persons.

• Operational police support services. Interpol has six priority crime areas on which it focuses resources. These are corruption, drugs and organised crime, financial and high-tech crime, fugitives, public safety and terrorism, and trafficking in human beings.

• Police training and development. Interpol provides targeted training initiatives for national police forces to enhance the ability of member countries to effectively combat serious cross-border crime and terrorism.

Interpol Operational Services and Support

Interpol has many different areas of operational support, including:

• Command and Co-ordination Centre (CCC)

   Based at the General Secretariat in Lyon, the CCC operates 24h/day. It links the General Secretariat, the NCBs and the regional offices. It serves as the first point of contact for any member country faced with a crisis situation to ensure that the full resources of Interpol are ready and available. This can include the deployment of an Incident Response Team or a Disaster Victim Identification (DVI) team to the site of a terrorist attack or a natural disaster.

• Database Solutions

   Interpol has created a range of databases e.g. a stolen and lost travel documents database was created after links between terrorist activity and the use of fraudulent travel documents were established. This contained 14 million records from more than 130 countries at the beginning of 2008.

• Technical Solutions

   As an example, Interpol has developed two different technical solutions (MIND and FIND) for front-line officers at key locations such as airports and border crossings to have real-time access to current information on Interpol databases (e.g. check for stolen travel documents and wanted persons).

• International Notices

   Interpol can issue seven different types of notice to alert law enforcement authorities to specific situations:

<table>
<thead>
<tr>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>red</td>
<td>wanted persons</td>
</tr>
<tr>
<td>blue</td>
<td>individuals of interest in relation to a crime</td>
</tr>
<tr>
<td>green</td>
<td>warnings and intelligence about serious criminals</td>
</tr>
<tr>
<td>yellow</td>
<td>missing persons</td>
</tr>
<tr>
<td>black</td>
<td>unidentified bodies</td>
</tr>
<tr>
<td>orange</td>
<td>dangerous materials, criminal acts or events that pose a potential threat to public safety</td>
</tr>
<tr>
<td>Interpol</td>
<td>United Nations Security Council Special Notice (individuals associated with Al Qaeda and the Taliban, as listed by the 1267 Committee of the UN Security Council)</td>
</tr>
</tbody>
</table>
Forensic Activity at Interpol

Interpol manages many databases as part of its functionality to provide operational data services and databases for police but, at the present time, only two of these databases represent forensic data (fingerprints and DNA). Thus Interpol plays an active role in the international sharing of these specific types of information.

The general operating principles for these two forensic databases are the same. In line with Interpol’s stringent security protocols, both databases contain no personal names and any matches that occur during the searches are alerted as ‘hits’ such that the respective investigative teams can make direct contact with each other for further information. Further, both forensic databases are accessible over the secure Interpol I-24/7 network.

Fingerprints

The Fingerprint Unit at Interpol can process 10 prints and latent prints from crime scenes received from its member countries. They can be sent over the I-24/7 network from their NCBs for search and input into the Interpol Automated Fingerprint Identification System (AFIS). It is important that the image data is of the highest possible quality, and to help facilitate this, the Fingerprint Unit offers training and awareness to all staff from the member countries.

At the present time (10 December 2008) the Interpol fingerprint database holds 83,000 entries from 155 different member countries.

The INTERPOL AFIS Expert Group (IAEG) was created at the 67th General Assembly (Cairo, Egypt, 1998). It is composed of representatives of eight member countries and representatives from Interpol along with an observer from EUROPOL. This main task of IAEG is to provide general guidance to countries/organisations in acquiring, developing, integrating and operating a national AFIS. Further, it promotes implementable approaches to the international electronic exchange of fingerprint images and data.

DNA

The Interpol DNA Unit provides member states with the opportunity to load DNA profiles onto the DNA database through the I-24/7 network for searching. Over the I-24/7 communication system using the DNA Gateway interface each member country can submit profiles instantly, delete files instantly and determine which countries have access to each submitted profile.

At the present time (10 December 2008) the Interpol DNA database holds 82,364 entries from 48 different member countries. To date, there have been 167 international hits.

Interpol International Forensic Science Symposium

Interpol organises a triennial Forensic Science Symposium with the 15th Symposium taking place in October 2007. These Symposia provide a forum for forensic managers from all the member countries to:

- exchange information which will enhance scientific contributions in criminal investigation and the administration of justice,
- present updates made in forensic evidence types over the previous three year,
- discuss current forensic issues encountered by member states and the possible provision of solutions through the combined experience and expertise of the participants,
- identify trends and potential impacts on forensic science,
- create bridges with the international forensic community which supports the Interpol mission.
12.5 **G8**

**Background**

The G8 stands for the “Group of Eight Nations”. It began in 1975 when the President of the France invited the leaders of Japan, the United States of America, Germany, The United Kingdom and Italy to discuss the economic problems of the day. The group expanded to include Canada in 1976 and Russia in 1998.

In 1978, the G8 Leaders invited the European Economic Community to join the summit. Ever since, the European Union has taken part in the discussions but it cannot chair or host a summit. The EU is represented by the President of the EC and by the Leader of the country holding the presidency of the Council of the European Union at the time of the G8 Summit.

**Structure**

Unlike many other international bodies, the G8 does not have a fixed structure or a permanent administration. The G8 is chaired by each of the member countries in turn for a full calendar year in a fixed order: France, USA, UK, Russia, Germany, Japan (2008), Italy (2009) and Canada. The country holding the G8 presidency is responsible for hosting and organizing the annual summit and a number of ministerial-level meetings in the lead-up to the summit.

At a G8 summit, the Heads of State from the eight member countries discuss major issues of the day. They seek to reach informal agreements on measures in a cooperative manner. At each Summit, the leaders agree upon certain initiatives and then there are follow-up meetings throughout the year to ensure that commitments are being honoured.

The ministerial meetings bring together ministers responsible for various portfolios to discuss matters of mutual or global concern. The statements published following these ministerial meetings and following the annual Summit of the leaders may contain political and financial commitments made by the G8 members.

**G8 Lyon-Roma Group**

Initially, in the field of law enforcement and justice, there were two working groups dealing with issues relating to judicial and police cooperation:

- the Group of Roma on Terrorism (1982)
- the Group of Lyon on Organised Crime (1996)

Following the terrorist attacks on the USA on 11 September 2001, the two G8 groups were merged to create the Lyon-Roma Group. This group is the main forum for G8 cooperation on fighting terrorism and organised crime. Experts from the G8 countries meet three times each year. These experts are drawn from various areas including the appropriate ministries (including Interior, Justice and Foreign Ministries), the police and the intelligence services. At the present time there are several sub-groups structured around different themes.

**DNA Data Sharing**

One current G8 theme is of great significance to international forensic cooperation and the sharing of forensic information. This is the work on DNA data sharing.

Under the French G8 Presidency, a meeting of the G8 member states’ ministers of Justice and Home Affairs plus the European Commissioner in charge of Justice and Home affairs met in Paris on 5 May 2003. This meeting led to the publication of the “G8 Statement of Principles Concerning the Use and the Sharing of DNA Information”. This statement contained 11 guiding principles for DNA data exchange.
Under the UK G8 presidency (2005), a project was initiated to identify the real and the perceived constraints to sharing DNA data both for the purposes of investigating specific offences and for improving police intelligence. By undertaking an analysis of the barriers and constraints that limited DNA data sharing, potential solutions were identified. Further, the project team proposed technical approaches to remove the technical barriers.

In May 2006, a technical working group (named “DNA Search Request Network”, DNA SRN) was established, chaired by the UK delegation. The DNA SRN working group drafted recommendations on the processes for exchanging DNA information. The processes were designed through the identification of the key issues:

- technical (e.g. the different DNA marker systems used in different countries)
- legal (e.g. different regimes for the use and retention of DNA profiles on national databases)
- data protection

By addressing these issues DNA data sharing can take place lawfully, quickly and inexpensively. Most importantly, the proposals did not necessitate the creation of a common DNA database or require one country to have automatic access to an existing DNA database in another country. Furthermore, the SRN approach demonstrated that cooperation could be achieved without interfering with the consensus in each country about the use of DNA for law enforcement purposes or embarking on a slow process of legal harmonisation (if that could ever be achieved anyway).

It is worth noting that the SRN principles are capable of implementation as an automated system, but alternatively exchanges of information can also take place via standardised emails. The security of such communications can be enhanced by the use of appropriate secure international communication routes (e.g. Interpol I-24/7 network).

In the future the sharing of DNA information between EU Member States will be greatly facilitated by the technical measures being put into place as a direct result of the Prüm Treaty being incorporated into EU Legislation (see Section 13.2). Nevertheless, DNA data sharing with non-European states (e.g. other G8 countries) can still operate using the SRN principles until such time as more automated processes might be put in place.

In June 2007, a G8 pilot test of the SRN process was conducted by sending an agreed search request form to the USA, Canada and the UK. The Interpol I-24/7 network was used, with the request arriving at the National Central Bureau (NCB) of each participating country with automatic onward transmission to the national DNA Bureau. The recipient DNA Bureau was then responsible for conducting a DNA database search and reporting the results back over the Interpol I-24/7 network. Since the end of 2007, four G8 Member States (USA, UK, Canada and Japan) have successfully shared some DNA profiles.

12.6 United Nations (UN)

The United Nation (UN) has an enormous remit to tackle a wide range of world problems. Its activities include disarmament, peacekeeping, peace-building, human rights, justice, emergency assistance, refugee relief and promoting social and economic development. In addition, there are 15 autonomous organisations closely linked to the UN through special agreements; as examples, these include the WHO (World Health Organisation), IMF (International Monetary Fund) and UNESCO (UN Educational, Scientific and Cultural Organisation).

The UN has a strong remit on justice and international law with the International Court of Justice as its main judicial organ. Further, the UN continues to play a major role in the introduction of international legislation. In addition, the recognition that criminal activity makes a significant contribution to world problems provides the focus for many UN activities. Thus, it is not surprising that the UN is currently an active player in promoting international forensic cooperation. Two examples of such UN activity are provided below.
United Nations International Independent Investigation Commission (UNIIIC)

The UNIIIC was created by the UN to tackle a specific problem that had arisen in the Lebanon in 2005. A former prime minister (Rafik Hariri) was assassinated on the 14th of February 2005. This was an example of a country being unable to conduct an investigation and turning to the UN for help, where no other route for assistance lies open to it. In response to the request from Lebanon the UNIIIC was established in April 2005 by UN Security Council Resolution 1595 (S-RES-1595(2005)) to carry out the investigation. Their role was to conduct this specific assassination investigation (the work is still going on in 2008).

Since the original assassination there have been numerous further attacks resulting in the deaths of over 60 people including some Lebanese officials. The UNIIIC is investigating these further attacks to determine if they can be linked to the original Hariri assassination and can be attributed to the same perpetrator(s). If links are established the UNIIIC will (try to) bring these cases to the Tribunal as well.

Forensic science has played a part in the work of the UNIIIC and ENFSI institutes have been assisting since its inception and continue to be involved. Requests for forensic support are made by the Commissioner of UNIIIC through the ambassadors of UN Members States. By this route the capabilities of specific institutes are matched to the UNIIIC requirements and work is submitted. Items are currently undergoing forensic analysis (DNA evidence, fingerprints, explosives, tool marks, paint and metal) at international laboratories.

To improve the response time for forensic results, the UNIIIC has recently increased the number of international laboratories on its access list. Further, it has also obtained ready access to information databases on wanted persons, individuals with criminal records, missing or deceased persons, stolen identification documents and motor vehicles, as well as DNA profiles and fingerprints.

UNIIIC will have a finite lifetime and following the adoption of Security Council resolution 1757 (2007) establishing the Special Tribunal for Lebanon, preparations for a transition from the UNIIIC to the Office of the Prosecutor of the Special Tribunal are underway. Nevertheless, the involvement of the UNIIIC has played a significant role in facilitating international forensic cooperation.

The forensic support to UNIIIC by European forensic laboratories has been organised and delivered on an ad hoc basis leaving some ENFSI institutes with large amounts of UNIIIC work that has impacted upon the delivery of their regular casework. Although UNIIIC is a temporary commission, other similar situations may arise in the future. Thus, there may be merit in exploring with the UN the best ways to set up long-term arrangements for the provision of forensic services from the European forensic institutes, should the need arise.

United Nations Office on Drugs and Crime (UNODC)

The United Nations Office on Drugs and Crime (UNODC) was established in 1997 through a merger of the United Nations Drug Control Programme and the Centre for International Crime Prevention. Its activities were previously focused around the worldwide illicit drug problem but the UNODC has recently expanded its focus to a broader programme of work. UNODC is now designated as the UN centre for the fight against “uncivil society” - drugs, organised crime, terrorism and human trafficking.

Thus, UNODC is mandated to assist UN Member States in their struggle against illicit drugs, crime and terrorism. In the UN Millennium Declaration (September 2000), the Member States also resolved to intensify efforts to fight transnational crime in all its dimensions, to redouble the efforts to implement the commitment to counter the world drug problem and to take concerted action against international terrorism.
UNODC operates in all regions of the world through an extensive network of field offices. UNODC relies on voluntary contributions, mainly from governments, for 90 per cent of its budget.

The three main strands of the UNODC work programme are:

- Field-based technical cooperation projects to enhance the capacity of UN Member States to counteract illicit drugs, crime and terrorism.
- Research and analytical work to increase knowledge and understanding of drugs and crime issues and expand the available evidence for policy and operational decisions.
- Guidance activity to assist UN Member States in the ratification and implementation of international treaties, the development of domestic legislation on drugs, crime and terrorism, and the provision of secretariat and substantive services to the treaty-based and governing bodies.

Within the UNODC, the Laboratory and Scientific Section (LSS), based at the UNODC Headquarters in Vienna (Austria), is responsible for implementing the Office’s forensic work programme. The LSS seeks to promote the development of forensic science through the provision of technical services worldwide. This activity is designed to enhance national forensic capacity and infrastructure.

Thus, the main goal in the forensic field is to contribute to the worldwide availability and use of quality forensic services, scientific support and data by:

- **Capacity Building**
  Improving national forensic capabilities and capacity to meet internationally accepted standards.
- **Integration**
  Promoting the use of forensic information to support strategic operations, to assist decision-making, and to help policy formulation.
- **Standard Setting**
  Developing manuals of recommended analytical methods, forensic guidelines and forensic best practice manuals.

Historically, the UNODC LSS has focused its services on the illicit drug problem, but since 2007, this has been expanded to forensic science institutes handling a wider range of crimes, in line with the broadening focus of UNODC. More specifically the current services provided by UNODC LSS include:

- Scientific/technical expert advice on issues related to drug precursor analysis and other forensic fields. This includes advice on other related areas (e.g. quality data generation, safe disposal and forensic best practice).
- Expert advice, guidance and standards for the assessment and improvement of national scientific and forensic capacity.
- Technical assistance programmes and projects to enhance national forensic capacity and infrastructures.
- Material assistance for scientific and forensic capacity building including the provision of authentic reference samples, scientific literature (related to drug analysis and forensic science) and laboratory equipment.
- Provision of training for laboratory staff.
- Quality assurance support, including the biannual round-robin proficiency tests (known as the International Collaborative Exercises - ICE) to improve the performance of national drug analysis laboratories.
- Advocacy and support for the development of cooperative networks among laboratories, and with their clients (law enforcement, regulatory, health authorities, judicial system), for improved national integration, operational response and international sharing of forensic data.
Over the last year, in line with its new wider objectives, UNODC LSS has been establishing contacts with regional forensic networks (ENFSI, ASCLD, SMANZFL and AICEF). UNODC has indicated that they wish to ensure that there is coordination in the delivery of forensic cooperation between countries bearing in mind the potential overlap between their worldwide UN interests and the regional interests of the individual Regional Forensic Networks. Very recent activity (October 2008) has seen UNODC facilitating meetings to help launch new regional forensic networks: the Asian Forensic Sciences Network (AFSN) and an African network. UNODC has also focused on identifying specific regional needs and looking towards the delivery of more focused technical assistance where it is required (e.g. AICEF).

EU / UN Liaison

A good example of close liaison between the EU and UN is provided by the two associated programmes of work:

- EU’s Border Management Programme in Central Asia (BOMCA)
- EU’s Central Asia Drug Action Programme (CADAP)

These programmes are financed by the EU and implemented by UNDP (UN Development Programme) and also involve UNODC. Together the BOMCA-CADAP programmes represent the practical expression of the EU and UN’s strategic interest in supporting the security and stability of the Central Asian region. Effective border security and the fight against drug trafficking are intimately linked.

Forensic experts from the ENFSI institutes are involved in these programmes. CADAP project “XAC J29 – Support to Forensic Lab Capacity in Central Asia” is such an example (involving a German drug expert from the BKA).

Furthermore, the EC is financing a UNODC-managed project on drug precursor control in Afghanistan and its neighbouring countries. The overall objective of this project is to develop national local capacity for the identification and seizure of smuggled chemicals used in the illicit manufacture of heroin into Afghanistan. The project also aims to intensify regional cooperation with and among neighbouring and potential transit countries for these chemicals.

12.7 ENFSI

ENFSI Membership

The European Network of Forensic Science Institutes (ENFSI) vision is to be recognised to be the pre-eminent voice in forensic science within Europe, helping to maintain the quality and develop forensic delivery in this region of the world. As its name suggests it is a network of forensic institutes/laboratories, geographically spread across Europe including those from EU Member States and most EU candidate countries. At the present time (December 2008) the membership consists of 55 institutes spread across 31 countries. [It is worth noting that one further institute has become a member since the survey questionnaires were sent out to the 54 ENFSI directors in May 2008.]

The history of the organisation stretches back to the early 1990’s when the membership was 11 laboratories and thereafter there has been a steady growth in membership numbers to the present situation.

Member organisations must fulfil stringent criteria to join ENFSI as set in the ENFSI policy document “Framework for Membership” (BRD-FWK-001). The eligibility criteria for member institutes are stated as:

- The forensic institute shall cover a broad area of forensic expertise investigations i.e. more than 50% of the expertise areas covered by the ENFSI Expert Working Groups.
The forensic institute shall have a credible status in its own country (e.g. regular supplier of reports used by police forces, prosecutors or judges).

The forensic institute shall employ at least 25 people including management, scientific staff and supporting staff.

The forensic institute shall have achieved an accreditation or documented progress in quality assurance with a clear plan to obtain accreditation in the near future.

The last point indicating the intention of the forensic institute to achieve accreditation in the near future (if not already achieved) reflects the central determination of ENFSI to push for a high quality standard for forensic science across Europe.

**Table 2** shows the list of ENFSI members at the time of the director survey (May 2008). The countries represented are:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine and the United Kingdom.

**ENFSI Mission Statement & Aims**

ENFSI represents an organisation based on the principles of cooperation on all forensic matters. Its Mission Statement reads as follows:

“**ENFSI has been established with the purpose of sharing knowledge, exchanging experiences and coming to mutual agreements in the field of forensic science. ENFSI is recognized as an expert group in the field of forensic science**”.

Arising from this the aim of ENFSI is stated to be:

“To ensure that the quality of development and delivery of forensic science throughout Europe is at the forefront of the world”. It will therefore:

- strengthen and consolidate ENFSI,
- expand the membership throughout Europe while maintaining the development and credibility of ENFSI,
- establish and maintain a working relationship with other similar organizations worldwide,
- encourage all ENFSI laboratories to comply with best practice and international standards for quality and competence assurance.

**ENFSI Governance & Structures**

ENFSI is governed by a chairperson, a chairperson designate and a three member Board. The chairperson and the chairperson designate are each elected for a period of two years. Other Board members are elected for terms of three years. In addition the work of the Board is supported by a permanent ENFSI Secretariat currently hosted by the Netherlands Forensic Institute in The Hague.

ENFSI has two Standing Committees:

- The Quality & Competence Committee (QCC)
- The European Academy of Forensic Science (EAFS)

*The specific functions of these committees are discussed below.*
ENFSI Expert Working Groups (EWGs)

The ENFSI Expert Working Groups (EWGs) support the development of forensic science in their own particular disciplines. There are currently 16 working groups covering the following specific areas:

- Digital Imaging
- Fingerprints
- Marks
- DNA
- Firearms
- Paint & Glass
- Documents
- Fire & Explosion Investigation
- Road Accident Analysis
- Drugs
- Forensic Information Technology
- Scenes of Crime
- Explosives
- Forensic Speech & Audio Analysis
- Fibres
- Handwriting

An ENFSI Policy document “Framework for Expert Working Groups” (BRD-FWK-003) directs them to support the European development of their particular area of forensic science by any or all of the following activities:

- Exchanging information and expertise through meetings.
- Promoting quality assurance (eg by Collaborative Testing) and the development of professional standards.
- Harmonising methods.
- Combining research activities.
- Providing education and training within the particular area.
- Establishing international access to data collections.
- Producing a best practice manual according to the ENFSI template for those areas of work for which the Expert Working Group is responsible.

Each EWG is required to produce an “EWG Terms of Reference” with its stated aims based on some or all of the above activities.

The role of the ENFSI EWGs is at the very heart of European forensic cooperation between forensic institutes and it is clear that the promotion and encouragement of activity by these groups in the areas indicted above must represent a key objective for future advancement in this area.

The ENFSI Framework document for the EWGs requires each to nominate one representative for membership of the ENFSI Quality and Competence Liaison group (QCLG) – see below.

Table 4 “Overview of Sixteen ENFSI Expert Working Groups (2007)” provides a broad overview of the structures and the activities of the 16 EWGs. Each year the EWG chairs are required to supply the ENFSI Board with a report of their activities and Table 4 is compiled from the information contained in those reports for 2007 along with other information published on the ENFSI website.

Table 4 emphasises the significant differences that exist between the EWGs. Their sizes and structures show substantial variation as do the frequency and the nature of their meetings. Furthermore, the “Framework for Expert Working Groups”, discussed above, provides considerable flexibility as to what activities are undertaken and this is reflected in the reality of their diverse terms of reference.

ENFSI Quality and Competence Committee (QCC)

The QCC is a standing committee of ENFSI. The QCC Terms of Reference (ENFSI BRD-TOR-001) state that the aims of the QCC are:
“to develop policies and provide advice to the Expert Working Groups and ENFSI members to help the laboratories of ENFSI members comply with best practice and international standards”.

The QCC consists of a chairperson, a representative from the ENFSI Board and four other individuals from the ENFSI laboratories.

The QCC works very closely with the ENFSI Quality and Competence Liaison Group (QCLG). The QCLG includes representatives from the ENFSI laboratories and the ENFSI EWGs. The interaction between QCC and QCLG is one of the main channels for the identification of quality issues and other related matters of importance for the advancement of quality and competence assurance. The QCC maintains the membership list for the QCLG.

The Terms of Reference specify that the ENFSI QCC shall achieve its aims through:

- liaison with the QCLG,
- meetings of the QCLG,
- conference seminars at an open ENFSI forensic science meeting,
- the coordination of proficiency tests throughout ENFSI,
- maintaining a rolling strategic plan,
- by representing ENFSI on forensic quality issues with international organisations for accreditation, certification and calibration (e.g. EA, ILAC and BIPM).

Much of the work of the QCC is progressed through a series of specific projects with clearly defined objectives, project leaders and project teams. Areas of activity and working areas include:

- Competence assurance
- Validation of methods
- Measurement of uncertainty
- Information security
- Sampling
- Best practice
- Accreditation
- Proficiency tests & collaborative exercises

**ENFSI EAFS Standing Committee**

The European Academy of Forensic Science (EAFS) is a Standing Committee of ENFSI. The overall aim of EAFS (set out in the Terms of Reference, ENFSI BRD-TOR-003) is set out to be:

“to act as the strategic advisor to ENFSI on matters of Research and Development (R&D), in a broad sense”.

This overall aim is encapsulated in three main aims:

- To provide leadership and focus on matters of R&D to ENFSI (with the outcome being a R&D programme that meets the needs of the ENFSI membership addressing topics of generic strategic importance – rather than individual discipline areas,
- To improve knowledge transfer between individual stakeholder groups (scientists, police, lawyers), researchers and practitioners (with the outcome being various forums for the transfer of knowledge between EFSI laboratories and with appropriate stakeholders – these include various One-Day-One-Issue Seminars (OOS) and the EAFS Triennial Meeting).

[The EAFS Triennial Meeting is a large forensic conference with parallel sessions held over several days. It attracts representatives from many different communities]
(forensic practitioners, forensic researchers from universities & industry, lawyers, law enforcement personnel, educators etc.). The next meeting will be held in Glasgow (UK) from 8 – 11 September 2009 when the theme of the conference will be “Knowledge Exchange: the Cycle of Knowledge Creation, Transfer and Application].

- To improve the funding of ENFSI research topics

The EAFS consists of a chairperson, a representative from the ENFSI Board, the organiser of the next EAFS Triennial Meeting and 4-6 other individuals from the ENFSI community.

ENFSI and European / International Forensic Cooperation

The topics (above) describing the many and diverse activities of ENFSI emphasise its many and wide contributions towards European and international forensic cooperation. Overall, these supportive efforts to promote cooperation seem to fall into five broad areas:

- The promotion of common and high quality levels for the delivery of forensic science across all forensic institutes through the adoption of best practice and the implementation of international standards.
- Internal ENFSI structures (EWGs, QCC Standing Committee) that provide the framework for moving forward towards common high quality standards.
- The provision of various communication channels (web site, OOS meetings, EAFS Triennial Meeting) to encourage forensic practitioners to talk with each other and to share information.
- To provide leadership and focus in the area of research and development through the identification and implementation of research topics of general interest across the ENFSI membership.
- An embracing approach to forensic science outside of Europe (e.g. membership of IFSA), demonstrating an understanding that forensic issues generally have worldwide applicability (see Section 12.8 below).

12.8 Other Regional Forensic Networks

The interests of forensic institutes and forensic practitioners in other regions of the world are served by other regional forensic networks. As will become apparent (below) these organisations have similar goals and aspirations to ENFSI in Europe. The current section provides brief descriptions of the various organisations involved.

American Society of Crime Laboratory Directors (ASCLD)

The American Society of Crime Laboratory Directors (ASCLD) is the oldest network of forensic science institutes, having been created in 1974. It is a non-profit making professional society of crime laboratory directors and forensic science managers that looks “to provide excellence in forensic science through leadership and innovation”. The listed aims are:

- to foster professional interests and assist the development of laboratory management principles and techniques,
- to acquire, preserve, and disseminate forensic based information,
- to maintain and improve communication among crime laboratory directors,
- to promote, encourage and maintain the highest standards of practice in the field.
ASCLD membership is for individuals rather than forensic institutes (cf. ENFSI). There are three types of membership (regular, retired and academic affiliate). Regular membership is open to all individuals whose major duties include the management or direction of a crime laboratory, a branch crime laboratory, or a crime laboratory system. The Society is composed of crime laboratory directors, managers and supervisors from the USA, Canada, Puerto Rico, Virgin Islands and Costa Rica. However, it also has members from outside of the North American region (Israel, Australia, New Zealand, China, Singapore, Taiwan and Finland, Ireland, England, Sweden, Switzerland and Turkey).

The organisation holds a yearly symposium devoted to the provision of training in leadership and management techniques. Further, the meeting also offers the membership opportunities to network with other laboratory directors.

In pursuance of its aims to develop the highest standards in forensic practice, in 1981 ASCLD created a separate accreditation board called the "American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB). The crime laboratory accreditation programs offered by ASCLD/LAB are voluntary programs in which any crime laboratory may participate to demonstrate that its management, personnel, operational and technical procedures, equipment and physical facilities meet established standards. The original program (now called ASCLD/LAB Legacy Program) has been used for over 20 years and is still available. However, this has now been supplemented by a new program (2004) called ASCLD/LAB-International Program based on the ISO17025 standard.

**Senior Managers of Australian and New Zealand Forensic Laboratories (SMANZFL)**

Senior Managers of Australian and New Zealand Forensic Laboratories (SMANZFL), formed in 1987, contains the directors of all forensic science organisations (scientific and police) in Australia and New Zealand. SMANZFL looks “to promote leadership in the forensic sciences in the pursuit of excellence”. The listed aims are:

- to provide leadership and best management practice in the forensic sciences,
- to promote interaction and cooperation with stakeholders,
- to strive for scientific excellence,
- to contribute to police issues in the justice system,
- to promote confidence in the forensic sciences,
- to promote efficient and effective use of resources.

SMANZFL is supported by eight Specialist Advisory Groups (SAGs) dealing with specific scientific areas. These areas are: biology, chemical criminalistics, document examination, field & identification sciences, toxicology, illicit drugs, electronic evidence and medical sciences. The work conducted by the SAGs covers a wide remit: technical matters, R&D, training, quality, legislative policy & framework and communication/representation.

**Academia Iberoamericana de Criminalistica y Estudios Forenses (AICEF)**

The Academia Iberoamericana de Criminalistica y Estudios Forenses [the Latin American Academy of Criminalistics and Forensic Studies] (AICEF) is a relatively new regional forensic network organisation formed with the preparation and the signing of a declaration at a meeting in Madrid, Spain (November 2004). The members represent state agencies in Spain, Portugal and the Latin American countries. The organisation is based on an Annual Meeting with working groups consisting of experts from different forensic science disciplines. AICEF is aimed to be a coordination and cooperation body and a forum for the exchange of forensic experience, techniques and procedures.

**Asian Forensic Sciences Network (AFSN)**

The youngest regional forensic network was launched in October 2008 at a meeting facilitated by UNODC. Six forensic science institutes from Southeast Asia met to outline the basis for the Asian Forensic Sciences Network (AFSN). A working constitution and a code of conduct have been agreed. A six-member interim Board has been appointed with the main task of
making preparation for the AFSN inaugural meeting next year. It is anticipated that AFSN will cover members from Southeast and East Asian countries.

**Progress towards an African Regional Forensic Network**

In Southern Africa, the nucleus of a regional forensic network has existed for a few years with the heads of forensic police institutes meeting regularly as Southern African Regional Police Chiefs Cooperation Organisation (SARPCCO). At a meeting facilitated by UNODC at the end of October 2008 the group took further steps towards the creation of a true regional forensic network. Agreement was reached on their terms of reference and a code of conduct. A mechanism to allow membership for laboratories was also identified.

**The International Forensic Summit (TIFS)**

The International Forensic Summit (TIFS) is an initiative that began at the International Association of Forensic Science (IAFS) meeting in August 2005 (Hong Kong, China). This initiative brought together the forensic leaders from the major regions of the world to discuss ways to establish a coordination mechanism and a strategy to enhance cooperation and share information.

TIFS aims to bring together a comprehensive range of forensic disciplines such as science, medicine, pattern evidence and scenes of crime. Further, it aims to identify forensic needs and assists with identifying resources to meet those needs. TIFS is a global partnership between multiple regional forensic science networks. The groups participating include not only directors of forensic institutes, but learned societies representing practitioners, educational groups and key enabling bodies.

Led by a steering committee, TIFS is working to provide a framework to enable participating forensic organisations to coordinate, cooperate and collaborate on matters of international importance. The TIFS Steering Committee contains representatives from SMANZFL, ASCLD, ENFSI and AAFS (American Academy of Forensic Sciences).

TIFS also supports forensic science in emerging nations. Further, its website (www.theforensicsummit.org) provides a mechanism for TIFS participants to collaborate and share information as registered users.

Furthermore, TIFS aims to act as an umbrella organisation to coordinate several different major areas of activity, as follows:

- forensic operations
- professional organisations
- service partners / enablers
- forensic science education
- legal medicine.

The organisations within the “forensic operations” group are ASCLD, SMANZFL, AICEF and ENFSI. These organisations have formed the International Forensic Strategic Alliance (IFSA). See the next section.

**International Forensic Strategic Alliance – IFSA**

The International Forensic Strategic Alliance (IFSA) is a partnership between regional forensic networks and currently includes ASCLD, SMANZFL, AICEF and ENFSI. The regional forensic networks have recognised the value to be gained through long-term collaboration and cooperation on strategic issues related to the management of forensic science laboratories and the promotion of forensic science. When creating IFSA, the heads of the regional forensic networks signed a memorandum of understanding (MOU) at the 15th Interpol International Forensic Science Symposium (Lyon, France October 2007). This MOU is designed to build international cooperation in the science-based fight against crime.
The stated goals of IFSA are:

- to promote the operational forensic science community,
- to develop and execute a rolling agenda for strategic issues related to forensic science,
- to be a strategic partner to other relevant international organisations and partnerships,
- to encourage the exchange of information related to experience, knowledge and skills between the member networks.

12.9 CEPOL


CEPOL's mission is to bring together senior police officers from police forces in Europe - essentially to support the development of a network - and encourage cross-border cooperation in the fight against crime, public security and law and order by organising training activities and research findings. CEPOL's vision is that the agency is acknowledged by allied agencies and authorities in the policing and academic world to be the primary source of learning and development in the field of education and training for better cooperation and policing in Europe.

CEPOL organises between 80-100 courses, seminars and conferences each year covering a wide-range of topics relevant to its mission. These events take place at the National Police Training colleges of the EU Member States.

Another key activity of CEPOL is the drafting of "Common Curricula". These provide recommendations about police training on specific subjects with a European dimension. EU Member States can use the recommendations within their national police training programmes according to their individual needs. The Common Curricula also provide the basic ideas and elements for CEPOL's courses and seminars. At the present time the Common Curricula cover the following specific areas:

- Counter terrorism
- European police cooperation
- Europol
- Police ethics and prevention of corruption
- Domestic violence
- Money laundering
- Trafficking in human beings
- Civilian crisis management (work in development)
- Drug trafficking (work in development)
- Management of diversity (work in development)

At the present time forensic science is not included as a specific area in the "Common Curricula".

Although forensic science may be touched upon in several CEPOL courses/seminars/conferences, there are few specific events dealing with forensic science. There has been a CEPOL 'forensic science seminar' each year for the last three years (2006-2008) held at the MoJLE International Training Centre in Budapest (Hungary). This annual event has been regularly supported by ENFSI by the provision of moderators and presenters.
One of the current study team members (Richard Gill) attended the last CEPOL Seminar held at the MoJLE International Training Centre in Budapest (CEPOL 2008/14 held on 14-17 October) and delivered a presentation describing the current study on forensic cooperation. The seminar was entitled “New Technologies Used in the Fight against Terrorism, Combined with Forensic Science”. The declared target group identified within the CEPOL ‘Course Descriptor’ was “senior officers (police, border police, customs and national security) experts on counter terrorism, who are customers of forensic science”. The seminar was attended by delegates from 17 EU Member States.

The annual CEPOL ‘forensic science seminar’ serves a very useful purpose in introducing European police officers to various topics in forensic science across a broad spectrum. Thus, this annual event does facilitate interaction between the two communities (the forensic community and the law enforcement community). Nevertheless, the forensic topics within the seminar change each year (there is no common curriculum) and the numbers of people involved are relatively small.

It would appear that the gap that currently exists in the delivery of training to middle-ranking and senior police officers across Europe is the broad awareness of forensic science at a strategic level and thereby an understanding of both national and international forensic cooperation. This understanding of forensic science from a strategic perspective is becoming ever more important as police investigations continue to place ever increasing reliance on forensic methods. These are the ideas that are encapsulated within the forensic cooperation model developed as part of the current study. The model might serve as a valuable vehicle to help deliver such training.

It is not clear at this stage how training in the strategic aspects of forensic science might best be delivered to the police community. The development of a specific CEPOL Common Curriculum for forensic science might be a way ahead, through which the police training delivered in Member States can be influenced. Further, there could be CEPOL courses/seminars designed to deliver a more strategic forensic viewpoint.

There is also an extended viewpoint that sees significant advantages for such a strategic forensic curriculum to be delivered simultaneously to both communities (members of the forensic community alongside members of the law enforcement community). This approach would achieve the key aim of improving the communication between the two communities, ensuring both have a common understanding of processes and problems, and facilitating a common vocabulary when talking about forensic matters.
13 Forensic Cooperation - Current Initiatives

This chapter of the final report continues with the broad review of the information that has been gathered by the study team relating to the different ways by which forensic cooperation across Europe is currently being influenced or facilitated. Chapter 12 (Forensic Cooperation - Facilitating Organisations) concentrated on the general roles played by the different organisations that have been recognised as facilitators of forensic cooperation. This Chapter (Forensic Cooperation - Current Initiatives) looks at some specific initiatives, projects and topic areas that have been recognised as significant in influencing forensic cooperation now, or will do so in the future.

Again, the information has been gathered from open sources (publications, the internet, presentations at conferences etc.), from the personal knowledge of study team members and from proactive efforts to learn more about the specific initiatives by speaking with the people and the organisations involved. Thus, although much of this information is freely accessible from various scattered sources, it is the collection and the presentation of this material in a systematic way that provides the powerful insight into the current state of European forensic cooperation.

13.1 EU Initiatives (The Schengen Information System)

A Brief History of Schengen

The term Schengen Agreement is generally used for two agreements among European states ratified in 1985 and 1990 designed to remove border controls for persons moving between those states and thereby defining a border-free region referred to as the Schengen countries. The original agreement involved only five countries (France, Germany, Luxembourg, Belgium and the Netherlands). These states represented only five of the then ten European Member States and thus the original agreement represented a multilateral agreement rather than a truly European agreement. Over the years the number of Schengen countries has grown with the following list of full members:

Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain and Sweden.

In addition, Switzerland, Liechtenstein and Iceland have special agreements with the Schengen countries to facilitate movement across the borders.

Further, the United Kingdom and Ireland are not full Schengen members but participate in the Schengen police cooperation activity (see below).

As indicated above, from the beginning, the Schengen Agreement and all the associated measures introduced to facilitate its operation were not of the European Community legislative framework. That changed with the Amsterdam Treaty (signed on 2 October 1997 and coming into force on 1 May 1999) when Schengen became incorporated into the EU legislative and institutional framework.

Schengen Cooperation

Schengen has three key elements:

- No checks at the borders between Schengen countries.
- A unified visa system for the Schengen countries.
- A shared computer information database (the Schengen Information System, SIS) used to exchange data on border security and law enforcement.
[It is worth noting that the United Kingdom and Ireland do not participate in the first two elements but do participate in the third element, the Schengen police cooperation.]

The main purpose of border checks on persons include keeping the unwanted out and preventing the wanted (criminals, say) from leaving. If border checks between two countries are reduced or eliminated, as a compensatory measure, information needs to be shared at the external frontiers of both countries. Without this a fugitive from one country could travel to a neighbouring Schengen country and leave the region in that way. Thus, the need for a multi-national database (SIS) for the use of immigration, border control, judicial and police authorities in all the Schengen countries.

Information about a specific people of interest (an alert) is entered into the SIS by a given country, along with the measures to be taken should the person be encountered. Such measures can include:

- That the person should be taken into custody because they are wanted for a crime.
- That the person should be denied entrance or a residence permit in the Schengen area.
- That information should be shared about the location of a person because they have been reported missing.
- That information should be shared about the location of a person because they should be appearing before a criminal court.
- That the person should be taken into custody temporarily, considering his/her own safety or someone else’s safety.
- That the person should be kept under secret surveillance.

As part of the Schengen police cooperation, the SIS has evolved to include other information in addition to people. Thus, the further SIS categories are:

- Vehicles to be placed under surveillance or subjected to specific checks.
- Objects sought for the purposes of seizure or use in criminal proceedings.

Thus, the SIS can handle alerts for a wide range of ‘wanted objects’ that might cross a border (firearms, motor vehicles, trailers, caravans, ships, aircraft, identity papers, blank official documents, financial bonds, suspect banknotes, methods of payments etc.).

**Schengen (The Current Exchange of Forensic Information)**

Schengen and the SIS were not developed with the explicit intension of sharing forensic information between countries. Nevertheless, the systems have evolved over the years and forensic information exchange does occur as a result of Schengen activity.

The information entered on the current version of SIS is relatively basic and is only stored in alphanumeric format. For a person a SIS record might only include:

- Names, including aliases.
- Sex and objective physical characteristics.
- Date and place of birth.
- Nationality.
- Whether the person is thought to be armed or violent
- The reason for the alert.
- The action to be taken.

Very often these details may not be enough to give the authorities the information they need. Thus, from the very start of Schengen it was realised that a system was needed for the supply of supplementary information. Each Member State holds this supplementary information on the persons who are the subject to its alerts on SIS, in a national database called SIRENE (an acronym for Supplementary Information Request at the National Entry) under the control of a national Sirene bureau. The Sirene bureau is responsible for holding supplementary
information in relation to all its own national entries on SIS and making that information available to the bureau of any other Schengen State, on request.

Thus, the Sirene bureaus give the SIS a human-interface (operational round the clock) through which supplementary information on a positive SIS ‘hit’ can be exchanged. All types of relevant case information can be exchanged and this might include photographs and forensic information such as fingerprints and DNA. Thus, beneath the current Schengen arrangement using the SIS there is an effective mechanism for the exchange of forensic information (alongside other information).

**Schengen (The Future Exchange of Forensic Information)**

There is a further factor that will influence the long term potential of Schengen to be involved in the exchange of forensic information. The current SIS network database (with its central technical support system in Strasbourg) is reaching the end of its useful life and has been put under strain by the increased number of Schengen countries in recent years. It is therefore being replaced by a second generation Schengen Information system (SIS II). In the design of this new system it was perceived that the opportunity should be taken to build in new technical features, in particular the inclusion of biometric data (data directly concerning the physical characteristics of individuals, such as photographs, fingerprints, DNA profiles or retina scans). Clearly, the intentions result from the future technological opportunities to further expand the use of biometric data for identification purposes at ports, airports and other border control points. Nevertheless, the SIS II database will also represent a significant mechanism by which forensic information might be exchanged.

The SIS II is still under development but work is well advanced. Information provided to the Council of the European Union on 28 February 2008 (EN 6796/08) indicated that the final SIS II tests will be conducted between January and June 2009 and that operational migration from SIS to SIS II will take place from September 2009.

**13.2 EU Initiatives (The Prüm Treaty Incorporated into EU Legislation)**

**A Brief History of Prüm**

The Prüm Treaty was an agreement between seven European Member States (Belgium, Germany, Spain, France, Luxembourg, the Netherlands and Austria):

“on the stepping up of cross-border cooperation, particularly in combating terrorism, cross-border crime and illegal immigration”.

The Prüm Treaty was signed on 27 May 2005. It is noteworthy that five of seven signatories were the same Member States who signed the original Schengen Agreement. Nevertheless, it is important to realise that Schengen and Prüm are completely separate areas of agreement.

Since the original Prüm Treaty was set up several other Member States have joined: Bulgaria, Finland, Greece, Hungary, Italy, Portugal, Romania, Slovakia, Slovenia and Sweden.

From the beginning the Treaty was an international agreement that was not part of European Union legislation. However, on 23 June 2008 European Council Decision 2008/615/JHA incorporated the substance of the provisions of the Prüm Treaty into the legal framework of the European Union. The Decision was published in the Official Journal of the European Union on 6 August 2008 and it took effect 20 days later. With the exception of the provisions relating to DNA and fingerprints, the EU Member States have 12 months from 26 August 2008 to take the necessary steps to comply with the Decision. In respect of the DNA and fingerprints provisions, they have three years from the same date to do so.
Prüm (The Exchange of Forensic Information)

The principle purpose of Council Decision 2008/615/JHA is to improve the exchange of information between Member States, particularly in giving reciprocal access to national databases containing:

- DNA Profiles,
- Fingerprints, and
- Vehicle Registration Data.

Each Member State makes these databases available to other Member States for automated searching. The results of such searches are returned as ‘hit’ or ‘no hit’. In essence the automatic search answers the question, “does another Member State have comparable data to match the data that I have?” In the case of a ‘hit’ the next stage is to seek further information from the designated contact point of the given Member State.

Thus, the legal framework is in place for automated data searches and the subsequent follow-ups for ‘hits’. Full implementation from a technical viewpoint presents significant challenges with the automatic searching of DNA, fingerprints and vehicle registrations across all European Member States. There are many technical difficulties to be overcome and, no doubt, considerable financial investment will be required to achieve the final goal. The organisation of human resources to handle the follow-up requests arising from initial ‘hits’ will also need to be addressed. Further, it is not yet clear what volumes of data exchange might be encountered when all member states are operating such a system. Nevertheless, the Council Decision provides significant opportunities for improved forensic cooperation through the exchange of DNA and fingerprint information.

Alongside Council Decision 2008/615/JHA a second Council Decision 2008/616/JHA (23 June 2008) was also adopted which lays down the necessary administrative and technical provisions for the implementation of Council Decision 2008/615/JHA. This deals particularly with the automated exchange of DNA, fingerprints and vehicle registration data. The technical aspects of implementing DNA exchange sit with the ‘Ad Hoc Group on Information Exchange on DNA’.

13.3 FORJUST

FORJUST is a current project group operating under the remit of the ENFSI Board, looking at the Europe wide forensic training of prosecutors, lawyers and judges.

It is recognised that the effective use of forensic expert opinion in the court relies upon the cooperation between the forensic experts and the prosecutors, lawyers and judges. Thus, there is an ongoing need for judges, prosecutors and lawyers (and police officers) to be trained in all issues concerning evidence collection & transportation, the capabilities of forensic laboratories and the interpretation of results and quality assurance, at a level appropriate to their professional duties. This is ever more important because of the continuing rapid developments in forensic science.

History of the FORJUST Project

An ENFSI One-Day-One-Topic Seminar entitled “Training Collaboration between forensic institutes and schools for prosecutors, lawyers & judges” was held in Krakow (Poland) on 26-27 April 2007. The meeting saw merits for such training to be delivered through collaboration between the national training centres to representatives of the law enforcement community and ENFSI forensic institutes.

With 54 ENFSI members across Europe there are many different ideas on the education and training of the police, prosecutors, lawyers and judges. Common quality criteria need to be established for the training and for the trainers delivering that training.
The Krakow meeting resulted in a proposal for the ENFSI Board to initiate a project to look at this area. A core project group (10 persons) started work in the summer of 2007 with Ingrid Morselt from the Netherlands Forensic Institute as the project lead. One member of the project group is also a member of the ENFSI European Academy of Forensic Science (EAFS). The current project plan runs to December 2008.

FORJUST Project Aims

- To produce an inventory of the needs and expectations concerning the topics and range of the training courses in forensic sciences defined by the (national) training centres, the training participants and the forensic science institutes;
- To produce a set of guidelines on which the education and professional training of judges, prosecutors, lawyers and police officers should be created;
- To produce a working document on the qualifications of trainers including a first start on a register of internationally qualified trainers.

FORJUST Progress

Satisfactory progress has been made with FORJUST project in line with the proposed plan of work.

Earlier in 2008 the FORJUST project established contact with The European Judicial Training Network (EJTN) a body founded by the schools of judges and other institutions specifically responsible for the training of the professional judiciary in the EU Member States. The secretariat of this body is based in Brussels. EJTN promotes and organises training programmes with a European dimension for members of the European judiciary and their trainers. There are clearly opportunities for cooperation between ENFSI and EJTN in promoting the delivery of forensic training to the judiciary.

The FORJUST project is also close to delivering a set of guidelines concerning the education and training of the police, prosecutors and judges across Europe. The final document is expected before the end of 2008.

The work in the current study in the development of the forensic cooperation model has clearly demonstrated the mutual inter-dependence of the forensic community and the law enforcement community. Thus, the continuing forensic education and training of the police, prosecutors, defence lawyers and judges must be a very important theme for the future long-term development of European forensic cooperation. The detail of how this future training can best be delivered will still need further work but the outcomes of the FORJUST project will undoubtedly provide useful guidance. Further, the involvement of CEPOL and EJTN seems pivotal to future developments.

13.4 Examples of Bilateral Agreements

During the course of the current study there has been much discussion (also reflected within this final report) about forensic cooperation initiatives that focus on Europe-wide or even worldwide activity where many different countries are simultaneously involved (multi-lateral cooperation). Nevertheless, it is valuable to appreciate that there remains much forensic cooperation activity that occurs between two parties to address some very specific requirement. In many instances formal bilateral agreements have been drawn up between the two organisations to facilitate the work.

The purpose of this section of the report is to present a few miscellaneous examples of these bilateral agreements as a reminder that this type of work also needs to be taken into account when thinking about the broad spectrum of international forensic cooperation. This is the type of cooperation activity that tends to be of low visibility within the forensic community, and each project might only be fully appreciated inside the two organisations that are directly involved. Nevertheless, there appears to be significant work activity in this area involving ENFSI
institutes and it is clear that the work delivered represents a very valuable contribution to law enforcement activity.

Agreements to Assess or Enhance Local Capabilities

- A forensic expert from the BKA has recently co-operated with UNODC to assess the capacities of forensic drug laboratories in Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan, and Tajikistan and to train the staff in these laboratories.

- A forensic expert from the BKA is currently supporting the UNODC Country Office for Afghanistan in assessing the competence and capacities of the laboratory of the Counter Narcotics Police of Afghanistan (CNPA) in Kabul. This initiative also includes the education and training of staff.

- In a project sponsored by the EU, a forensic expert of the BKA will soon be assessing the analytical capabilities of the drug laboratories in Iran and Pakistan. This initiative is in association with UNODC.

- The so called Twinning Projects, sponsored by the EU, include elements that are designed to raise the quality standards of European forensic laboratories and police forces. These initiatives do not focus exclusively on specific forensic matters but support police forces and forensic institutes in many ways. Turkey and Romania are examples of previous twinning countries.

[N.B. Three of the examples shown involve UNODC – see Section 12.6]

Multiple Service Agreements

- France has set up bilateral agreements with several countries (e.g. Algeria, Brazil, China, Cyprus and Macedonia). The multiple service agreements support operational and technical cooperation on security matters and the provision of mutual assistance in several different fields (including forensic science). In the forensic area this assistance includes the education and training of staff, the exchange of information and professional experience. The results also provide for the sharing of results from forensic research.

13.5 ENFSI Website for Methods and Technology for Crime Scene Investigation

This cooperation initiative was one of the key deliverables from an EC AGIS funded project, “Development of International Standards for Crime Scene Investigation Strategies and Good Practice in Crime Scene Examination Methods” [JLS/2005/AGIS/104(57)]. This project was led by the UK Home Office and involved partners in Austria, Germany, the Netherlands and Sweden

The main objective of the AGIS project was to produce a strategic document, for use by investigators and crime scene examiners, detailing roles, attendance, communications and considerations at the crime scene (supported by aide memoires in the form of checklists). In addition, the project was to produce a secure, searchable, web-based reference library of all the crime scene examination techniques and equipment currently assessed and in use throughout Europe and beyond.

The current ENFSI Website for Methods and Technology for Crime Scene Investigation is the outcome from the second element of the AGIS work. It became fully functional in early 2008. The website is an application available through the internet that is hosted by Europol who deal with the computer security arrangements for the server and the user access. An “ENFSI Crime Scene Website Use Policy” has been produced and procedures are in place for the authorisation of various user roles with different levels of access. Several new roles emerge including content managers and user managers.
The website is composed of a library of documents and also includes a discussion forum. Depending on their privileges, the website users can upload information to one of 3 different layers in the library:

- European guidelines
- Nationally approved documents
- Personal contributions

The documents can be in any of the EU languages but each document has associated data, including a mandatory English abstract. The website also provides for full text searches.

The website does not contain any personal data, with the exception of the user names associated with content. Further, the names and contact details of experts in the field can be included either self-loaded or after gaining their permission.

The website facilitates the sharing of knowledge related to crime scene investigation amongst law enforcement authorities and the forensic science community. Further, the website supports the development of best practice for crime scene investigation, by the ENFSI scene of crime EWG.

The website has the potential to provide significant benefits to the crime scene examiner community and to facilitate forensic cooperation in many different ways. These include:

- Access to documents relating to procedures, technical methods, standards and best practice (a shared reference library across Europe).
- The exchange of experience, through the uploading of documents by forensic practitioners that contain accounts arising from personal practical activity.
- The facility to text search the whole website content to enable links to be made between the information that arises from many different sources that may originate from many different European countries.
- The opportunity to ask for, and receive specific advice to resolve current issues in real time, through the discussion forum.
- The opportunity to engage in ‘networking activity’ within the crime scene examination community through the discussion forum.

The website is relatively new and has not yet gained wide usage. Thus, many of the benefits above have not yet been realised. It is early days and potential users need to understand its potential impact. Maximum benefit will arise with an active community of users who make contributions to the website content as well as being content consumers. The ENFSI scene of crime EWG is planning promotion and marketing activity in the coming months to raise awareness about the website and thereby stimulate its use.

Europol and the ENFSI scene of crime EWG steering committee will continue to monitor the growth and the use of the website to ensure that it meets the expectations and remains fit for purpose.

The website represents a very significant step forward, demonstrating a very new type of direct, secure and instant communication across the European forensic community. In many ways this initiative can be seen as a prototype for similar approaches that could be taken in other areas of forensic science. Nevertheless, it is likely that the wide-spread adoption of such new communication channels by the forensic community may take some time as there will need to be a significant cultural change and the acceptance of new communication policies between institutes.
13.6 **ENFSI Multilingua Project**

Language problems between countries when communicating on forensic matters were raised by respondents on many occasions during the course of the current study on forensic cooperation. The communication between countries can involve the discussion of forensic ideas, the dissemination of results from research & development, the delivery of forensic training or the drafting of formal reports providing expert opinion relating to a specific case. Access to basic language skills is, of course, the initial requirement to overcome this problem but there are further difficulties associated with the specialised vocabulary used in a scientific and legal area such as forensic science. Thus, in forensic science there is a special need for a precise, clear and reliable vocabulary, facilitating a fast communication and collaboration of experts from various countries, embracing – among others – exchange of experiences and information.

Clearly, long-term European forensic cooperation, in so many different areas, is dependent on effective communication between countries speaking different languages.

The ENFSI ‘Multilingua Project’ is an important step in overcoming forensic vocabulary issues when translating between languages. This is an ENFSI project that was initiated in 1998 by Walter Bruder who was the director of the forensic institute in Stuttgart (Germany) at that time. The work of the project has been delivered by a team of multilingual people drawn from the ENFSI institutes. Revisions to the vocabulary held in the dictionary are only made following detailed discussions at the regular meetings of the project group. The work of the project group sits under the umbrella of the ENFSI EAFS Standing Committee.

The objective of the Multilingua Project was to facilitate mutual understanding among European forensic scientists. Within the field of forensic science the precise communication is critical and there is no room for mistakes or misunderstanding arising from poor translations. The value of words in forensic science is therefore inestimable.

The deliverable from this project has been an on-line Multilingua dictionary/glossary embracing contemporary terminology from the field of forensic science, which can be used by forensic science practitioners and their partners in the law enforcement community who handle forensic information. Further, the Multilingua dictionary can be helpful in the work of interpreters, translating formal documents where a forensic terminology is used, and also for readers of the scientific literature, searching for appropriate translations in their mother tongue.

The ENFSI Multilingua Dictionary can be found at [www.ies.krakow.pl/multilingua/welcome/](http://www.ies.krakow.pl/multilingua/welcome/)

At the present time the ENFSI Multilingua glossary contains 16 topic areas, as follows:

<table>
<thead>
<tr>
<th>DNA</th>
<th>Fingerprints</th>
<th>Hair &amp; Fibres</th>
<th>Paint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents</td>
<td>Firearms</td>
<td>Handwriting</td>
<td>Soil</td>
</tr>
<tr>
<td>Drugs</td>
<td>General</td>
<td>Marks</td>
<td>Speech &amp; Audio</td>
</tr>
<tr>
<td>Entomology</td>
<td>Glass</td>
<td>Materials &amp; Methods</td>
<td>Statistics</td>
</tr>
</tbody>
</table>

Further, the Glossary currently handles 18 languages, as follows:

<table>
<thead>
<tr>
<th>Czech</th>
<th>Greek</th>
<th>Portugese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danish</td>
<td>Hungarian</td>
<td>Romanian</td>
</tr>
<tr>
<td>Dutch</td>
<td>Italian</td>
<td>Slovak</td>
</tr>
<tr>
<td>English</td>
<td>Latvian</td>
<td>Spanish</td>
</tr>
<tr>
<td>French</td>
<td>Norwegian</td>
<td>Swedish</td>
</tr>
<tr>
<td>German</td>
<td>Polish</td>
<td>Turkish</td>
</tr>
</tbody>
</table>

The development of the ENFSI Multilingua glossary to its present form has taken many years and demonstrates the investment of a very significant resource. The quality of the current
glossary is highly respected as the work has been undertaken by individuals who are forensic practitioners with a very deep understanding of their subjects. Furthermore, the on-line software is well implemented and easy to use. Nevertheless, there is need to ensure that there are resources available to provide the long-term maintenance of this valuable resource, as new forensic terms are being introduced all the time. Furthermore, much could still be done to extend this tool to include further languages and a wider range of forensic and legal topics. Thus, resources must be sought to protect the long-term security of Multilingua Glossary thereby providing the means to maintain and develop it in the years ahead.

Despite the potential value of this tool the survey results from the study suggest that it is underused by forensic practitioners and, in some instances, there is general lack of awareness about its very existence. This is often true of the many individuals who expressed a view that language remains a significant obstacle to international forensic cooperation. Thus, the way ahead must include more work to promote the value of the Multilingua Project amongst the very persons for whom it was originally designed. The Multilingua glossary has never been formally validated and the possibility of this might be considered as a first step to emphasise the value of the tool and thereby promote its use.

In 2005 formal letters were exchanged between the ENFSI chairman and the EC Directorate-General for Translation (DGT), responsible for the service that translates written text into and out of all the EU's official languages. In the correspondence, an offer was made (and accepted) for ENFSI to supply to the EC (and thereafter to regularly update) the Multilingua database. The intention was for the Multilingua tool to be used to help improve the quality of the translation of forensic terms into different European languages during the regular work of the DGT. It is believed that this decision was never implemented.
14 Quality Standards in Forensic Science

14.1 Introduction (Quality in Forensic Science)

The delivery of forensic services represents a very broad enterprise that can cover many different associated and sequential activities:

- The formulation of a strategy on how best to undertake a specific forensic investigation.
- The examination of a crime scene.
- Conducting scientific tests at a crime scene.
- The recovery of materials from a crime scene.
- The scientific examination of recovered materials in a laboratory.
- The interpretation of the results arising from scientific tests (formulating expert opinion).
- The communication of forensic results to customers as intelligence or evidence.
- The production of the reports (or statements) documenting the results from forensic examinations.
- The verbal reporting of results at courts or other tribunals.

Further, there are four different entities that contribute to the successful delivery of such forensic services (organisations, procedures, people and methods).

All of these ideas have been built into the forensic cooperation model developed during the course of the present study. The specific section of this final report (Fitness for Purpose & Oversight, Section 10.5) and Figure 3 provide the high level overview of quality concepts in forensic science. The concept of fitness for purpose is at the very heart of these ideas.

The complexity of the forensic process and the many different activities involved, means that several different frameworks can be used to look at the quality of forensic services. The following diagram demonstrates five such frameworks (Which? Where? What? Who? Phase?) that might be used:

<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisations</td>
<td>Scene</td>
<td>Recovery</td>
<td>Crime Scene Examiner</td>
<td>Investigate</td>
</tr>
<tr>
<td>Procedures</td>
<td>Laboratory</td>
<td>Analysis</td>
<td>Analyst</td>
<td>Evaluate</td>
</tr>
<tr>
<td>People</td>
<td>Court</td>
<td>Interpretation</td>
<td>Reporting Analyst</td>
<td>Adjudicate</td>
</tr>
<tr>
<td>Methods</td>
<td></td>
<td>Reporting</td>
<td>Reporting Officer</td>
<td></td>
</tr>
</tbody>
</table>

It is the first framework (Organisations, Procedures, Individuals and Methods) that is most often used when thinking about the quality of forensic services and this framework is used in the present discussion.

14.2 Forensic Cooperation Linked to Quality and Standardisation

Quality is central to the ENFSI mission statement: “The aim of ENFSI is to ensure that the quality of development and delivery of forensic science throughout Europe is at the forefront of the world.” Further, one of ENFSI’s aims is to “encourage all ENFSI laboratories to comply with best practice and international standards for quality and competence assurance”.

The lack of common standards has been identified as a barrier to cooperation between forensic science laboratories. Furthermore, the benefits of common standards in the fight against crime have been clearly set out by Malkoc and Neuteboom (The Current Status of Forensic Science Laboratory Accreditation in Europe; E. Malkoc & W. Neuteboom, Forensic Science International, 167, 2007, 121-126)
The call for the harmonisation of standards and procedures in forensic practice is made by ENFSI in its policy statement on accreditation (QCC-ACR-001:2007). It states that “ENFSI wishes to promote consistent and reliable scientific evidence through the whole forensic process from the scene of crime to court”.

Further, in the introduction to the ISO17025:2005 standard produced by the International Organisation for Standardisation (ISO) it states that “The use of this international standard will facilitate cooperation between laboratories and other bodies, and assist in the exchange of information and experience, and in the harmonisation of standards and procedures”.

It is self evident that common standards are essential to the effective investigation of crimes which involve the exchange of forensic information across national borders. For example, the Prüm Treaty (now EU Legislation) relies upon the requirement of Member States to make forensic information (DNA and fingerprints) contained in national databases available for searching. To facilitate this process the data must be in a standard format such that such searches become technically feasible. Furthermore, there needs to be a mutual trust amongst all Member States concerning the accuracy and reliability of the information held in national databases (achieved through common quality standards).

14.3 What does ‘Quality’ Mean in Forensic Science?

A generally accepted, simple and helpful definition of quality is “fitness for purpose”. This phrase has its origins in a term first coined by Joseph M Juran, “Fitness for Use” (Juran’s Quality Handbook by J. M. Juran & A. B. Godfrey, McGraw Hill, New York 1999). This simple definition leads to several key questions:

- what is the ‘purpose’?
- what is meant by ‘fitness’?
- how can ‘fitness’ be measured?

The overarching purpose of forensic science is probably best expressed as “meeting the needs of the appropriate justice system and thereby promoting public confidence”. Lack of conformance to a quality standard may lead to a miscarriage of justice, by which is meant either the failure to prosecute the guilty, the conviction of the innocent or the acquittal of the guilty. Underneath this high level ‘purpose’ is the practical role of forensic science providing reliable information at the investigative, evaluative and judicial phases of the forensic process.

Whether forensic science is or is not fit for that purpose may be determined by adopting appropriate standards and deciding whether or not forensic science conforms to those standards.

The use of the term ‘information’ for the main deliverable of forensic science allows for the purposes of both ‘intelligence’ and ‘evidence’ without being drawn into discussions about defining those terms and whether or not the same standard should apply to both. However, if intelligence and evidence have different purposes then different standards might apply to the two areas.

14.4 Organisations & Procedures (Quality Standards in Forensic Institutes)

It was pointed out above that the framework Organisations, Procedures, People & Methods is being used to discuss the quality of forensic science. Quality standards for organisations and procedures are generally linked together.

There are large numbers of national and regional standard setting organisations. Nevertheless, for good reasons, there has been a steady movement towards standardisation at the international level. Two organisations have come to the forefront in this respect: the
International Organisation for Standardisation (ISO) and the International Electrotechnical Commission (IEC). These are the international standard bodies to which most countries (i.e. their national standards organisations) are now affiliated. ISO is mainly concerned with industrial standards while IEC refers to electrical equipment. These two organisations now publish many hundreds of accepted international standards. The standards themselves are drawn up by International Technical Committees which have been approved by ISO and IEC member countries.

Although the first ISO standards were developed within manufacturing industries, they have now evolved to encompass many different types of organisation. In ISO vocabulary a ‘product’ can mean a physical object, a service, or a piece of software.

The current key international standards that are applied to forensic science are:

- **ISO17025:2005** ‘General requirements for the competence of testing and calibration laboratories’.
- **ISO17020:2004** ‘General criteria for the operation of various types of bodies performing inspection’.

[As well as the published ISO standard documents (above) there are numerous related supplementary documents ranging from interpretation guides to extensions encompassing related activity such as accreditation and proficiency tests. Some of these documents are introduced below.]

ISO17025 is generally considered to be applicable to laboratory based practice involving objective tests and has provided the standard for forensic science laboratories.

The forensic practice and subjective testing that takes place outside the laboratory (e.g. at a crime scene) looks to ISO17020 to provide an appropriate standard. Some national accrediting bodies have also used ISO17020 for forensic handwriting examination.

ISO is responsible for developing, maintaining and publishing the standards but ISO does not itself audit or assess organisations to verify conformity with a standard. The auditing and certification is carried out independently of ISO by many certification bodies around the world. ISO has no authority over their activities. **Certification** refers to the issuing of written assurance (the certificate) by an independent external body (**the certification body**) that it has audited an organisation and verified that it conforms to the requirements of the specified standard.

**Accreditation** has a very specific meaning. Throughout the world there are a relatively small number of specialised independent bodies (**accreditation bodies**), generally with the recognition of national governments, that can formally ratify a certification body as competent to carry out certification for particular ISO standards. In simple terms, accreditation is like the certification of the certification body. Certificates issued by accredited certification bodies are perceived as having increased credibility.

**European Cooperation for Accreditation** (EA) is a network organisation representing the nationally recognised accreditation bodies across the European geographical area. Clearly, the EA organisation (through its national members) can be very influential in ensuring that ISO standards are applied uniformly to all forensic institutes across Europe when they apply for Accreditation status. For this reason ENFSI has sought to work with EA.

In October 2006 a Memorandum of Understanding (MoU) was signed between ENFSI and EA with the following effects:

- ISO17020 was selected as the most appropriate standard for crime scene investigation.
- To set up a joint EA/ENFSI working group to draft a guidance document for the application of ISO17020 to the specialised field of ‘Crime Scene Investigation’.
The EA/ENFSI guidance document for the application of ISO17020 to ‘Crime Scene Investigation’ has just been published. ([Guidance for the implementation of ISO/IEC 17020 in the field of crime scene investigation, EA-5/03 (rev.00), December 2008])

This MoU was an important step forward with the recognition of ENFSI as a stakeholder in EA’s work. Further, the agreed activity recognised the central importance of having well crafted guidance documents to support the implementation of ISO standards in complex areas such as forensic science. Moving towards a situation where there are large numbers of European forensic institutes accredited to the same ISO standard will be undermined if that standard is applied in different ways in different countries where different interpretations are applied by the local national accreditation bodies. In line with this idea the EA mission statements include, “to ensure common interpretation of the standards” used by their member accreditation bodies. Further, the ENFSI/EA MoU includes a statement, as follows:

“EA is aware that among its members, different approaches exist to accreditation in the forensic area in general and to accreditation of forensic institutes performing the scene of crime investigations, in particular, and is ready and willing to contribute to the establishment of harmonised and effective practices, throughout Europe.”

ENFSI has been invited to join the EA Laboratory Committee (EA/LC) as a stakeholder. The EA/LC is the key forum for discussion of all questions related to the assessment and accreditation of laboratories. In particular the ‘terms of reference’ indicate that one responsibility of the EA/LC is to harmonise the assessment and accreditation of laboratories against ISO17025.

A further organisation of significance in this area is the International Laboratory Accreditation Cooperation (ILAC). ILAC is a global network organisation representing accreditation bodies dealing with testing and calibration laboratories. ILAC works closely with a second global network organisation, IAF (International Accreditation Forum) that represents accreditation bodies dealing with a wider range of activities other than laboratories. ILAC and IAF hold joint conferences and make joint decision in some areas.

The membership of ILAC includes the nationally recognised accreditation bodies from all around the world but the membership also includes regional cooperation groups. Thus, EA is a member of ILAC. The mission statements for ILAC include similar sentiments to those of EA:

- “Developing and harmonising laboratory and inspection accreditation practices.”
- “Assisting and supporting developing accreditation systems.”

As with EA, ENFSI has been recognised as a stakeholder by ILAC. ENFSI participates in the ILAC Accreditation Committee that is “responsible for harmonisation and improvement of accreditation practice at the international level”. Further, this committee is also involved “in the investigation of technical issues related to accreditation, and the development of technical documentation related to ILAC’s work”. ENFSI is also a member of the ILAC Laboratory Committee that “provides a means of interaction and exchange of ideas between ILAC and the laboratory community”.

ILAC produced a document in 2002 to “provide guidance for laboratories involved in forensic analysis and examination by providing application of ISO17025” (Guidelines for Forensic Science Laboratories, ILAC - G19:2002). At a Joint General Assembly Meeting (ILAC-IAF) in October 2007 a resolution was formally adopted with great importance to the forensic science community. This involved the adoption of a new work stream “to draft a single top level document that approaches the forensic process as a whole and provides common guidance for both ISO17020 and ISO17025 in areas where the activities overlap. The guidance will be based on the guidance document to ISO17020 for Crime Scene Investigation, already prepared by EA and ENFSI, and on ILAC G19:2002 for forensic laboratories.”
In a further communication from ILAC (ILAC News, Issue 34, October 2008) it is indicated that the new common guidance will include a review of the current ILAC G19:2002 (Guidelines for Forensic Science Laboratories). Further, the initiation of this work as a joint activity between ILAC and IAF is explained by the fact that ISO17020 is of joint interest to both the ILAC and the IAF communities. The work is being taken forward by the ILAC Accreditation Committee and ENFSI will be able to make a contribution to this work through its participation on this committee.

Overall, the engagement of ENFSI with both EA and ILAC represents very significant progress over the last two years, for the development of international standards in forensic science.

As indicated above, the standards ISO17020 and ISO17025 have a significant degree of overlap. The common elements include the following areas:

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The main distinguishing characteristics of ISO17020 are:

- ISO17020 allows for the use of professional judgement.
- Inspection personnel can make decisions based on previous experience.
- The organisation defines and documents the level of qualifications, training, experience and knowledge for inspection personnel.
- Health & Safety requirements need to be incorporated into documented procedures.
- Procedures may be less prescriptive than for those under ISO17025.
- Competence assessment may have to be more rigorous.
- The accreditation body will determine if the organisation has appropriate personnel procedures.

For a forensic laboratory to achieve overall ISO17025 accreditation it will need to apply for accreditation for a defined scope of analytical methods. Nevertheless, accreditation for just one method requires full conformance with the full quality management standards embedded within the entire ISO17025 standard. These aspects of the standard influence the quality of all procedures (scientific and administrative) used throughout the organisation. It is worth noting that conformance to ISO17025 or ISO17020 also covers the major demands for the organisation to be compliant with the relevant requirements of the general quality management ISO9000 series of standards.

Once a forensic laboratory has achieved accreditation it is not a once-and-for-all award. It needs to be renewed at regular intervals through regular audits (generally annual) by the certification/accreditation body. As a result of the audits, non-conformances can be raised and the organisation will need to demonstrate that these have been addressed in an appropriate manner. Serious non-conformances (or others not cleared in a timely manner) can result in the laboratory accreditation being withdrawn.
14.5 People (Quality Standards Applied to Individuals)

The international quality standards ISO17025 and ISO17020 do not guarantee the competence of the individuals doing the work. The standards simply require that the individuals are trained and that there are systems and processes in place to underpin that training. Standards need to be viewed as measures that reduce risk but can never eliminate it. Failings in the delivery of forensic science can involve human error as a contributing factor (as in all other walks of life).

There is currently no international standard to accredit the competence of individual forensic scientists. Attempts to define individual competence are difficult. Several approaches have been put forward to understand forensic competence:

- Competence is “the ability to work to standards set by the profession and therefore such standards must be agreed by the profession”. [Ensuring Competent Performance in Forensic Practice: Recovery, Analysis, Interpretation and Reporting by K. Hadley & M. J. Fereday, CRC Press, 2007].
- Competence “implies possessing the requisite knowledge, skills and abilities to perform the job” (Guidelines for Forensic Science Laboratories, ILAC - G19:2002, paragraph 5.2.1).
- The inclusion of behaviours
  2) Hadley & Fereday (above)
  These authors include the idea that behaviours play an important part in determining competence.

Thus, from these various ideas a concise definition of competence might be ‘appropriate knowledge, skills and behaviours’.

The ENFSI Quality & Competence Committee (QCC) has attempted to address this gap by preparing a document entitled “Performance Based Standards for Forensic Science Practitioners” (ENFSI QCC-CAP-003). These guidelines were developed by the QCC Competence Assurance Project (CAP) Group for use by all ENFSI forensic science practitioners. These ENFSI standards are based upon work done by forensic practitioners from the Forensic Science Service (UK) working with an organisation called SEMTA (a UK Sector Skills Council part of whose remit is forensic science).

The ENFSI guidelines cover the forensic process from the crime scene through the laboratory to the courtroom. 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 will be achieved. In addition, they indicate the knowledge and understanding that a forensic practitioner needs to achieve a competent performance. However, it is a high level document and needs interpretation for each field of forensic practice. The QCC CAP Group has recognised this and a sub-project group is addressing the performance based standards needed for specific areas.

There are other approaches to the accreditation of individuals across different countries. The Netherlands is introducing a scheme of state registration for forensic practitioners. Nevertheless, a judge would still be able to accept the evidence of non-registered experts.

In the United Kingdom the Council for the Registration of Forensic Practitioners (CRFP) opened its register in 1999. The CRFP maintains a register of currently competent forensic practitioners. Registration relies on independent peer review of current case work assessed against objective criteria. Registrants are required to make an annual return (updating information about new cases undertaken, court appearances, new qualifications and training etc.) and then re-register every four years. Registrants are required to abide by a code of conduct and any reports of non-compliance or poor practice are subject to a ‘fitness to
practice’ review which can result in their removal from the Register. Registration is mandatory for forensic practitioners working within some organisations within the UK.

ISO17024:2003 Conformity assessment - General requirements for bodies operating certification of persons is an international standard that might have a potential application in the area of accrediting forensic scientists. ISO17024 specifies requirements for a body certifying persons against specific requirements, including the development and maintenance of a certification scheme for personnel. This would entail the definition of suitable and relevant competency criteria for forensic practitioners and an evaluation process which properly ascertains the demonstrable competence of individuals against those defined criteria. Further work would be needed to examine the viability of this approach for forensic practitioners.

The acceptability of forensic experts to the courts is a very important factor. It seems common in many jurisdictions for the trial judge to decide who is and who is not an expert. Further, it is also the case that academic and professional qualifications are often given considerable weight in making that decision. This can, of course, allow a well qualified (but less than competent) expert give evidence and thereby potentially mislead the court. There appears to be a need to encourage European judiciaries to include measures of current competence in their assessment of expertise and for sanctions to exist which will exclude those considered to be insufficiently competent.

Thus, the lack of a standard to accredit the competence of individual practitioners presents a significant risk to the overall quality of forensic science. A number of approaches have and will be tried but, as yet, none has been accepted by the profession as the best way forward.

14.6 Methods (Quality Standards Applied to Scientific Procedures)

ISO17025 includes extensive requirements related to the correctness and reliability of tests and calibrations as performed by the forensic science laboratory. Further, conformance information for this area is contained within the ILAC Guidelines for Forensic Science Laboratories (ILAC - G19:2002). Thus, overall the general conformance criteria in this area are well established.

Organisations accredited to ISO17025 will have a selection of their scientific methods reviewed as part of the annual review conducted by the accrediting body. This is to ensure that accredited methods continue to conform to the standard in terms of validation, documentation, internal audit, frequency of use, proficiency tests etc.

Information on the validation of new methods is found in ISO17025 and in the ILAC Guidelines. Further, ENFSI QCC has published guidance documentation, “Validation and Implementation of (New) Methods” (ENFSI QCC-VAL-001). Neither ISO17025 nor the ILAC require the ratification of new methods by an independent laboratory but this might need to be reconsidered in the light of the recent report by Professor Brian Caddy on Low Template DNA Methods (A Review of the Science of Low Template DNA Analysis, B. Caddy, UK Home Office, April 2008). Thus, inter-laboratory comparisons may need to play an increasing role in new method validation. The ENFSI validation guidelines are to be reviewed in the near future.

ISO17020, with its greater reliance on personal judgement, is not and does not need to be too prescriptive on methods & procedures. Given the central concept of professional judgement exercised at a particular time, validation does not seem to be so important for ISO17020. However, at a crime scene certain prescribed procedures will generally need to be followed and it is difficult to envisage the complete absence of validation in its broadest sense i.e. the ‘fitness for purpose’ of judgements.

There is also the wider issue of method harmonisation. In some areas of forensic science a particular substance in a particular matrix will be analysed by several different methods in different laboratories. While the validity of each individual method can be established by appropriate inter-laboratory comparisons there may be some merits for the relevant forensic practitioner community to move towards developing one internationally agreed standard method. However, there are disadvantages of moving towards the harmonisation of methods
such as the potential stifling of developing better methods, the pressures on budgets to purchase specific types of equipment and the dangers of creating commercial monopolies for specific instrument manufacturers. Thus, there needs to be caution exercised in taking this approach.

14.7 Standards for Formulating Forensic Expert Opinion

It was pointed out above that no best way forward has yet been established for the accreditation of individual forensic practitioners. This presents a significant risk to the overall quality of forensic science and never more so than when a forensic expert performs in the witness box of a courtroom. Clearly, the delivery of verbal expert testimony requires well developed personal presentation skills. Furthermore, it also requires standardised approaches to the way that the scientific findings are interpreted for the court.

Thus, there is an important area where common international standards have not yet been achieved i.e. the forensic interpretation of scientific findings. This broad process lies at the very heart of all forensic work as is demonstrated within the forensic cooperation model. Clearly, the details of forensic interpretation relate to the specific scientific disciplines involved but there are underlying principles that can be applied across broad areas. The central importance of this area highlights the need for urgent work to be undertaken to finalise some European / International standards.

The Association of Forensic Science Providers (AFSP) is a professional organisation of forensic service providers within the United Kingdom (UK). This is a new group that has formed as part of the many recent changes occurring in the UK as the provision of forensic services to police customers has moved to a more commercial position. The AFSP aims to represent the interests of forensic service providers in the maintenance and development of quality and best practice in forensic science in support of the criminal justice system.

Recent activity has seen the members of the AFSP developing a common standard for the formulation of evaluative expert opinion in forensic casework. This means the provision of a standardised opinion of ‘evidential weight’ (strength) for a specific proposition within a clearly defined framework of background circumstances. This is the type of information (evidence) that a court expects to hear from a forensic expert witness. The strength of evidence can be expressed either by a likelihood ratio value or by using a verbal scale related to the value of the likelihood ratio.

The general principles developed within the AFSP standard are applicable across the full range of forensic disciplines. This work is filling a very large and important gap in forensic standards as it is applicable to all types of forensic casework and is central to producing meaningful results from all such activity.

The AFSP standard has been adopted by all the current members of that organisation and was launched with a presentation at the Forensic Science Society Autumn Conference in Wyboston (England), 31 Oct – 2 Nov 2008. This standard could also be the foundation for a future European / international standard for the formulation of forensic expert opinion. In this respect the standard was presented at the ENFSI QCLG meeting at the State Forensic Science Bureau (SFSB) in Riga (Latvia), 23 – 24 Oct 2008.

This particular initiative on standardisation is providing an important pointer towards developing common approaches for the interpretation of forensic casework across Europe. The adoption of a common European standard for this activity, through the work of ENFSI, would provide a very valuable step on the road to forensic cooperation.

14.8 Training in Forensic Statistics (FORSTAT)

FORSTAT is another ENFSI initiative involved with raising the quality standards in the important area of forensic interpretation. The name is a contraction of “Forensic Statistics”.

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This work area follows on from a successful one-day one-topic seminar (OOS) and workshop on forensic evidence and evaluation in Krakow in June 2007. Afterwards, the ENFSI Board agreed to support the FORSTAT project. FORSTAT comprises a regular series of training seminars and workshops on statistics in forensic science and topics related to forensic evidence evaluation. A second seminar and workshop was held at the University of Edinburgh in June 2008 and a further seminar is scheduled for 2009.

The object of the FORSTAT project is to train European forensic scientists in the statistical evaluation of evidence and it is aimed at those who are forensic experts but may be beginners in statistics. The seminars are led by experienced lecturers, both statisticians and forensic scientists, from various institutes and countries. Suitable software is demonstrated which could be used as support for the evaluation of evidence.

This is an important initiative that reflects the changes that have taken place over the last decade in the ways that forensic experts evaluate their findings. The use of statistical and probabilistic methods and models play ever increasing roles in modern forensic science, by providing the foundations for casework interpretation. Furthermore, this continues to be an area of continuing research with new statistical methods being proposed. Thus, forensic experts, well experienced in their own scientific fields can find their knowledge of statistics and probabilistics lags behind or needs updating.

The FORSTAT project is an effective approach to tackling these issues and provides training on the likelihood ratio approach to the evaluation of forensic evidence. Initiatives such as FORSTAT represent yet further ways by which the general forensic quality standards across Europe can be raised and levelled. In this way the opportunities for cooperation between forensic institutes can be greatly enhanced.

14.9 **ENFSI European Mentorship for Forensic Accreditation (EMFA)**

This is a current forensic cooperation initiative from ENFSI by which those ENFSI members that have already achieved ISO17025 accreditation provide direct help to those ENFSI members that have not yet achieved that accreditation. The target group is the ENFSI members that have started or are just about to start their work on setting up their quality management systems.

The concept is to create twinning arrangements between accredited and non-accredited laboratories with the aim of helping the non-accredited laboratory achieve accreditation more quickly. Accredited ENFSI laboratories act as mentors/teachers for non-accredited ENFSI laboratories. In this way, non-accredited laboratories do not have to re-invent the wheel and they are helped to build good quality management systems.

The support is provided through face-to-face meetings and laboratory visits coupled with regular communication by telephone and email.

The project (EMFA, also known as ‘The Flying Mentors’) was proposed at an ENFSI QCC meeting in The Hague (9 March 2006) and reflects the high priority given by ENFSI to all its members achieving ISO17025 accreditation. The program started in September 2007 and will run for three years (to September 2010). The program is managed by representatives from the ENFSI QCC and the ENFSI Secretariat.

The organisation of the program is based upon defined criteria for the participants:

- The participating laboratories must make a commitment to the program.
- There should be a distribution of the participating laboratories coming from different countries.
- The non-accredited laboratory must have a quality manager or appoint one before the program starts.
- The non-accredited laboratory should choose two expert forensic fields that will take the lead in the development of the quality system.
• The accredited laboratory should state which areas they have in their accreditation scope and have appropriate resources to support the program.
• The two expert fields that the non-accredited laboratory has chosen should match the fields that the accredited laboratory has within its accreditation scope.
• Participants from the laboratories must have Internet access and the possibility to communicate by e-mail.
• The participating laboratories must approve of the matching with their twinning partner.
• A match of languages can be advantageous for the sharing of information, documents etc. This factor might be considered when other criteria are fulfilled.

An important factor for the EMFA program remains the financial arrangements. ENFSI provides some financial support to the program by covering the costs for travel and accommodation. Nevertheless, the participating laboratories have to be willing to cover some costs from their own budgets (staff salary costs and subsistence allowances when travelling).
15 Forensic Databases and Sharing Forensic Information

15.1 Forensic Databases and Physical Collections

Forensic Databases and physical collections of forensic objects represent fundamental tools used in the evaluation and the interpretation of forensic data leading to the generation of forensic expert opinion. Furthermore, forensic databases and physical collections have much in common and were grouped together when building the forensic cooperation model (Chapter 10). It is instructive to examine these similarities in more detail.

Physical collections of known objects (reference collections) are widely used in forensic science as points of reference for purposes of interpretation. As examples, a reference collection might contain samples of glass from known sources or collections of animal hairs gathered from known species. A different type of physical collection might consist only of casework samples recovered from crime scenes (e.g. a collection of used bullets recovered from crime scenes where the firearms that fired those bullets have never been identified).

All such physical collections (reference collections or crime collections) are systematically categorised, indexed, labelled and physically stored in such ways that specific items can be retrieved easily. The indexing may be very simple involving cardboard index cards or may involve a more sophisticated record system using a computer.

Thus, a physical forensic collection will consist of systematically stored and labelled objects where the labels point towards the information records associated with those objects. When, required, an object can be retrieved from storage and used for a scientific examination (e.g. comparing a hair recovered at a scene with an authentic specimen from the reference collection or, comparing a newly recovered bullet with bullets recovered at previous crime scenes).

In virtually all respects, forensic databases have common characteristics with physical collections. The key difference is that each record no longer includes a physical object but, instead, contains a piece of scientific information, held electronically (e.g. the sequence of numbers corresponding to a DNA profile or, the image of a finger mark). As with physical collections the items in a database can be from known sources (e.g. a reference DNA profile from a specific person) or from casework recovered materials (e.g. a DNA profile from a stain recovered at a crime scene). It is common for forensic databases often to contain both reference samples and crime scene samples. National DNA databases are usually set up in this way facilitating scene-scene, scene-person or person-person comparisons (N.B. Person-person matches can arise where reference samples have been collected from the same person using pseudonyms, say). As with physical databases the information stored alongside the scientific information can be very variable depending on the type of forensic database. It can include personal names, reference links to specific cases and crime scenes, dates of recovery and details of sources.

The key advance of fully computerised forensic databases is the ability to easily undertake flexible searches to look for matches and furthermore to retrieve the scientific samples simultaneously. Nevertheless, physical collections of objects of forensic significance and forensic databases need to be seen as part of a continuous spectrum. In the middle of that spectrum sits the physical collection with a computerised indexing system that facilitates some of the searching advantages associated with forensic databases. To further emphasise the similarities, many forensic databases have physical specimen collections held in the background for reference purposes as an integral part of their operation and management (e.g. DNA reference samples stored ready for re-analysis for evidential purposes should a ‘hit’ be encountered with a national DNA database).
Much of the discussion within the current Section will focus on forensic databases and the sharing of forensic databases but the parallel with physical collections should not be overlooked.

15.2 Local Forensic Databases

In the present context, the term ‘local’ is being used to described those forensic databases that are used within a given organisation (e.g. a given forensic science institute) or within a given country (e.g. a national DNA or a national fingerprint database). These are the building blocks that are used as the foundation for the international sharing of forensic database information.

Thus, some forensic databases are owned, located and managed within the forensic community whilst others are owned, located and managed within the law enforcement community. There are probably two key factors that influence the decision for any specific forensic database:

- **Personal information** It was pointed out in the preceding paragraphs concerning the general nature of forensic databases that, alongside the scientific information, each database record contains other diverse information. When the database records contain personal names and other personal information, the databases are regularly located and managed within the law enforcement community (e.g. national DNA and fingerprint databases). Being based on personal data, these databases must comply with any national/international legal requirements governing their establishment, content, accessibility and use (data protection issues etc.).

- **Security factors** The technical and scientific information in some forensic databases can be very sensitive, from a security viewpoint e.g. terrorist bomb construction and their component parts. Forensic science laboratories may be involved in the examination of individual cases and, will thereby contribute forensic information to such a database but the law enforcement community/government chooses to hold the database themselves. This is a situation where the accumulation of large quantities of information within a database can create an entity that has far higher significance and sensitivity than the individual entries that make up the database.

Thus, forensic databases containing personal names and sensitive data are likely to sit in the law enforcement community alongside other diverse intelligence databases that exist within each country.

15.3 Sharing Forensic Database Information (Getting Ready to Share)

National forensic databases (under the management of governments or law enforcement agencies) together with forensic databases under the management of specific forensic institutes are the starting points for international forensic cooperation in the sharing of database information. For such international sharing to take place effectively (or even take place at all) there are several key areas that need to be addressed:

- The database must have common information elements with the databases in the other countries where sharing is to take place (see the following discussion about the overlaps between the different DNA profiles produced using different analytical systems). This remains an important point and is really about countries agreeing what information is to be collected. In contrast, the problems associated with the data being held in different database formats or on different computer platforms can be largely overcome with modern software.

- The information in the database must be valid and of high reliability and quality to ensure that the complete exercise is worthwhile and does not have a negative effect and mislead justice.
• The database management procedures including all aspects of content control, searching and reporting, must meet equally high quality standards to facilitate the delivery of reliable and timely responses to other countries. Databases need to be updated and checked for completeness and correctness at very regular intervals and this requires a significant committed of resources for the long-term.

• There must be enabling principles and legislation in place making the data available and having national legislation in place to make the sharing of the data legal (see the next section, below).

A great deal has been said within this final report about the achievement of harmonised common high quality standards in the delivery of forensic science services. The need for this is fully apparent when considering the sharing of forensic database information.

DNA provides a very good example where the establishment of standard data formats has been a major influence in driving forward initiatives to share forensic database information. Different laboratories around the world use different DNA profiling systems (e.g. SGMplus™ and CODIS) and the markers (loci) used by the different systems are not the same. Thus, to facilitate the exchange of DNA profile information between different countries international standards have been established. The Interpol Standard Set of Loci (ISSOL) represents a set of agreed DNA markers that countries can use in common. Further, the EU has adopted the same set of core loci, the European Standard Set (ESS) in a Council Resolution on the exchange of DNA analysis results (25 June 2001). Nevertheless, each country remains free to use additional loci of their own choosing to improve the discriminating power of DNA. The ISSOL/ESS consists of 7 DNA markers and in practice this is generally only a minimum for the number of overlapping loci between different DNA profiling systems.

With reference to database management the ENFSI QCC has written (2002) a policy document (QCC-RFM-001) for the management of reference materials and databases to achieve consistent and reliable evidence. The policy invites each ENFSI EWG to include within its remit the responsibility to collate information on relevant reference materials held by member laboratories and to consider ways to provide reference materials to member laboratories.

A specific initiative in the field of DNA has led to a report by the ENFSI DNA EWG entitled “DNA Databases Management Review and Recommendations” (April 2008). This report was produced with financial support from the ISEC Programme EC – Directorate General Justice and Home Affairs as part of the project JLS/2007/ISEC/506 (“Improving the efficiency of European DNA data exchange”).

15.4 Sharing Forensic Database Information (Principles and Regulations)

The Hague Programme for strengthening Freedom, Security and Justice (see Section 12.1) adopted at the EU Summit in November 2004 introduced the ‘Principle of Availability’ (PoA) as the fundamental guideline for sharing information between European law enforcement agencies (Brussels European Council, 4/5 November 2004, Presidency Conclusions). The PoA was to come into effect across the EU on 1 January 2008. This fundamental principle says that:

“throughout the Union, a law enforcement officer in one Member State who needs information in order to perform his duties can obtain this from another Member State and that the law enforcement agency in the other Member State which holds this information will make it available for the stated purpose, taking into account the requirements of ongoing investigations in that State.”

In straightforward terms this means that if data is held then it can be shared between European law enforcement agencies.
Clearly forensic information is just one type of information covered by the PoA. Nevertheless, some further clauses within The Hague Programme find particular resonance for the sharing of forensic information. It says that the methods of information exchange should “make full use of new technology” with adaptation to each type of information though “reciprocal access to or interoperability of national databases or direct (on-line) access”.

The PoA can be said to be a cornerstone and to provide the vision for law enforcement cooperation. A significant move towards the implementation of the PoA came with the adoption of Council Framework Decision 2006/960/JHA on simplifying the exchange of information and intelligence between law enforcement authorities of the Member States of the EU. Member States were required “to take the necessary measures to comply with the provisions of this Framework Decision before 19 December 2008”.

This so called ‘Swedish Initiative’ was first proposed in 2004 before being adopted as the Framework Decision at the end of 2006. Further, draft guidelines for the implementation of the ‘Swedish Initiative’ were published on 7 November 2008 following a period of consultation on practical and technical issues with experts from Member States. During this consultation phase 49 types of relevant information for exchange have been identified and these include DNA and fingerprints (CRIMORG 7, 5815/2/05).

The basic concept of the Swedish Initiative is that the parties involved (the EU Member States, Iceland, Norway, Switzerland and Liechtenstein) apply the same criteria for exchanging data at national level as with signatory states. The idea was to lower the threshold for cross-border information exchange. The scope is wide and encompasses any information and intelligence directly or indirectly available to law enforcement agencies. Depending on the nature of the request and the availability to law enforcement agencies, there are time limits imposed for the response to a request issued in compliance with the Swedish Initiative.

A condition for requesting information or intelligence in accordance with the Swedish Initiative is that there are factual indications that the requested data are available in the requested state. Thus the requesting state has to provide these factual indications in the request.

The Swedish Initiative makes provision for the exchange of information via any of the existing channels:

- Sirene Bureaus (see Section 13.1)
- Interpol NCBs (see Section 12.4)
- Europol National Units (ENUs) or Europol Liaison Officers (see Section 12.2)
- Bilateral Liaison Officers

Europol and Eurojust are to be involved in the exchange if the content falls within the area of their respective competences.

Overall, the Swedish Initiative Decision points towards improvements in the ways information and intelligence are exchanged by setting rules on procedures, time limits and grounds for refusal, with the aim of simplifying the exchange. It should therefore have a positive impact on the exchange of forensic information in the future.

15.5 Sharing Forensic Database Information (Mechanisms)

Having established an environment where national forensic databases are fit for purpose and ready for sharing, it is necessary to consider the various options (processes and mechanisms) by which forensic database information can be exchanged. There are several options:

- Member States maintain full control of their national databases and exchange occurs by indirect access. The access to data in a database located in another country is achieved by way of making requests through a human communication channel and receiving the response down the same route.
• Member States maintain full control of their national databases but allow other Member States to have direct access for searching those databases.

• Member States maintain full control of their national databases but help to create a central index between the countries. The index contains the scientific information from the databases but this is only linked to an identifier because the records have been stripped of all detailed information. Searches are performed and deliver a ‘hit’ or ‘no hit’ response and further information about a hit can then be obtained by human communication channels.

• Member States pool their databases to create a central European or International database.

The last potential solution is the most radical and thereby needs the greatest effort for implementation from many different perspectives. The caution in taking this route is specifically highlighted in the Hague Programme (2004) where it says that “New centralised European databases should only be created on the basis of studies that have shown their value added”.

This final report contains several examples illustrating the different mechanisms for sharing forensic database information. The G8 SRN process for DNA data exchange (see Section 12.5) provides a systematised approach that can be used for information sharing through human channels. The implementation of Council Decision 2008/615/JHA (The Prüm Treaty incorporated into EU legislation, see Section 13.2) points towards an exchange mechanism based on indexes with ‘hit’/‘no hit’ responses. The Interpol DNA Database and Gateway works on a similar principle (see Section 12.4). In contrast the development of the new Schengen system (SIS II) with its provisions for including biometric data within the common database points towards the possibility of centralised database model (see Section 13.1).

The successful implementation of any mechanism for sharing forensic database information often will rely very heavily on the technical solutions (e.g. access to terminals, physical networks, and software) that are adopted to facilitate the communications and the data transfer. Firstly, there needs to be a high level of reliability in the operation of the systems coupled with a well designed user interface and a responsive. But, in addition there must be a high level of security built into the system giving confidence that information can be sent without danger of manipulation, theft or loss.

There are various technical solutions already in use and new systems are under development. Interpol has an encrypted technical solution (I-24/7) using the word wide web. Europol has a network of its own linking to its ENUs but are in process of building a new network. At the present time the SIS has a network of its own, but SIS II will move to the secure European network (S-Testa) in the near future. Law enforcement data sharing through Council Decision 2008/615/JHA will also use the S-Testa network. These technical matters are well beyond the scope of the current study but their diversity serves to emphasise a further complexity in forensic data sharing when considering the detail.

15.6 International Forensic Databases

Thus, fully centralised European databases for law enforcement purposes that contain forensic information based arising from pooled national database (DNA, fingerprints etc.) present significant, if not impossible, challenges.

In the forensic community international databases are also relatively rare, but examples do exist:

**EUCAP**

Some ENFSI member institutes with representatives on the ENFSI Paint and Glass EWG maintain the European Collection of Automotive Paints (EUCAP) by supplying analytical data,
information and samples obtained from car and paint manufacturers in their countries. The BKA (Germany) provide the central coordinator mainly supported by the Institut de Recherche Criminelle de la Gendarmerie Nationale (France) who are responsible for software developments. An agreement between the Federal Bureau of Investigation (USA) and the Royal Mounted Police (Canada) allows an exchange of information between the Canadian/American paint database “Paint Data Query” (PDQ) and EUCAP.

**ENFSI DNA EWG STR Population Database**

The ENFSI DNA EWG has undertaken an extensive study collecting STR (Short Tandem Repeat) DNA data (ca. 5700 DNA profiles) from 24 European populations. These have been analysed using the AMPFLSTR SGMplus system which has become one of the standard STR multiplexes to be used within Europe for criminal intelligence databases. This European population database can be used to calculate match probabilities of DNA profiles from cosmopolitan Caucasian populations across Europe (www.str-base.org).

15.7  **Surveys of Forensic Databases**

What forensic databases currently exist within Europe? In the current study resources have not permitted any type of systematic survey to be undertaken. Some surveys have been conducted in the past.

In 1995, ENFSI sent a questionnaire to its member institutes asking them to list all the “collections” that they used. Responses about the collections were categorised in various ways: object or data collections and computerised or non-computerised.

A further survey also supported by ENFSI was conducted during 2006. This was a more limited survey partly based on a survey of the ENFSI EWGs that was conducted by an internship student working at the Netherlands Forensic Institute whilst studying for Master of Biomedical Sciences (The International Exchangeability of Forensic Data Using Databases, Aniek van der Woude, September 2006).

A more specific survey in 2006, commissioned through the ENFSI DNA EWG has looked at DNA database legislation in the member countries of the ENFSI institutes (ENFSI DNA EWG Report on ENFSI Member Countries’ DNA Database Legislation Survey, Christopher H. Asplen, Update February 2006). At the time of the report the survey provided an account of the countries having DNA databases, the profile entry criteria, the profile removal criteria and the sample retention policies.

Thus, it is likely that most of the existing surveys are out of date. Nevertheless, it is clear that up to date knowledge about European forensic databases both local (forensic institutes and national law enforcement) and international databases constitutes an important information resources for the future. Such knowledge could be a very useful step to identify opportunities for the future sharing of forensic databases.
16 Evaluation of Survey Responses from Different Groups

16.1 Introduction

The next three Chapters of this final report (16, 17 & 18) deal with the evaluation of the various responses received from the various surveys involving different stakeholder groups. The evidence collection procedures were described in Chapter 11 and the various questionnaires used are shown in Appendices One to Four.

All questionnaires sent to respondents included a statement of confidentiality. These statements provided assurances to the respondents that the information provided would only be used to draw general conclusions and that the specific sources would not be identified. This decision to offer confidentiality was taken at the outset of the study to encourage respondents to be open and honest in the completion of the questionnaires. This was important as the questions ask about many topics that elicit answers about the deficiencies, shortcomings and problems associated with the delivery of forensic services. Without the offer of confidentiality some respondents may have felt uncomfortable with providing such answers for subsequent publication that would be linked with a specific person, a specific forensic institute or a specific country.

In the evaluation of the survey responses, the study team members have been fully aware of the identities of all the respondents and this has often been helpful knowledge when analysing the answers received. However, in the preparation of the following three Chapters, where those evaluations are presented, every effort has been made to ensure that the anonymity of individual respondents is respected.

Overall the questionnaires have addressed two general areas:

- the preparedness of European forensic institutes to handle an explosives incident.
- the obstacles to international forensic cooperation.

Preparedness

The questions on preparedness were specifically addressed to the European forensic community (ENFSI EWG chairs and ENFSI directors) within well defined sections of their respective questionnaires. Further, these questions were designed to include a large proportion of “tick box” and “multiple choice” responses. In this way, this preparedness data is amenable to statistical evaluation and graphical presentation. This analysis work is presented separately (Sections 16.2 & 16.3).

Survey responses from other groups did yield some views on preparedness but such comments tended to be concentrated on specific areas (e.g. National Major Incident Plans) or appeared as general comments within the answers to questions on forensic cooperation matters.

Forensic Cooperation

Questions relating to forensic cooperation (in all questionnaires) were deliberately designed to collect evidence about the experiences gained through practical examples of international forensic cooperation anywhere in the world. Many of the questions were deliberately broad and open to provide the respondent with the widest opportunity to share their practical experiences of forensic cooperation. Further, the respondents were invited to provide as much information as possible and to provide as many examples as possible.
It was recognised from the outset that the analysis of this soft forensic cooperation data would present a considerable challenge. Nevertheless, this was considered to be the only effective approach for drawing out the widest possible information on obstacles to forensic cooperation. Thus, traditional soft data analysis approaches (Listing & Categorisation) were applied to the analysis of these forensic cooperation responses.

The following table provides a quick overview of the sections within this final report where the questionnaire responses from the various groups are discussed:

<table>
<thead>
<tr>
<th>Group</th>
<th>European Preparedness</th>
<th>Forensic Cooperation</th>
</tr>
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<tbody>
<tr>
<td>ENFSI Directors</td>
<td>Section 16.2</td>
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<td>International Respondents from outside of Europe</td>
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<td></td>
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</tbody>
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**16.2 Responses from ENFSI Directors (Preparedness)**

The questionnaire *(Appendix One)* was sent to all 54 ENFSI institutes (as in May 2008) and 39 (72%) returned the completed questionnaire to the study team for evaluation. These 39 institutes are located in 25 different European countries. Table 1 shows the full list of ENFSI institutes involved and those highlighted in yellow were those that provided a questionnaire response.

Appendix Eight contains the list of questions in the ENFSI director questionnaire and wherever appropriate, the responses from the 39 respondents have been summarised alongside the questions (white on red). The use of this appendix provides a quick guide to the ENFSI director responses and should be used with this section of the final report.

A first review of the results showed some minor inconsistencies within the responses such as the fact that some respondents had not answered all questions or some answers were incompatible with others. Furthermore, some individual questions may be subject to differences of interpretation. Also, for reasons of varying language proficiency, some questions may have been misunderstood by some participants. Nevertheless, the completed questionnaires provide an adequate basis for evaluation. They present a viable picture of forensic preparedness across Europe at the time of the survey and are suitable for the identification of possible obstacles to forensic cooperation.

It is clear that most forensic institutes across Europe are government organisations (37) with only 2 institutes indicating any other status (private or government companies). Further, most institutes cover all crime types within their mandate or scope.

One key factor providing validity to the current survey results arising from this questionnaire is the fact that out of the 39 replies, 22 already have some experience in responding to terrorist
bomb incidents and thereby have practical experience of this area (Figures 7 and 8). Thus, with over 20 ENFSI institutes having handled previous terrorist bomb incidents there is a solid platform of experience on which to further build European preparedness through future cooperation work.

Nevertheless, thirteen institutes in six countries have indicated that they have no experience in post-blast investigations although it is possible that in these countries non-ENFSI institutes may provide the forensic post-blast investigations.

Scene Examination

Concerning scene examination, the majority of participating institutes seem to have reasonable levels of preparedness. In the majority of countries scene examinations are directed by police or prosecutors so that working conditions are comparable in this respect (Figure 9).

In addition, a clear majority of the institutes can provide staff at incident scenes (Figure 10). There is also widespread provision of post bomb teams and disaster victim identification (DVI) services. A surprising result is the fact that, according to the questionnaires, a relatively high number of institutes can also provide teams or experts for CBRN incidents.

Most forensic institutes can cover the standard capabilities for scene work (searching, recovering, sampling, developing fingerprints, detecting explosives, technical examinations for post blast materials and testing of hazardous materials). The results indicate that few institutes provide bomb disposal teams reflecting the fact that bomb disposal is not generally a core task of forensic science institutes.

Half the respondents indicated that they had a major incident plan in place for scene attendance (yes= 19, no= 19). Those with major incident plans seem to have many of the major elements in place such as call out and shift work arrangements and travel/accommodation plans for their staff. In addition, the majority of participating institutes provide rapid response scene examination teams (Figure 11).

Laboratory Work

About half of the participating forensic institutes indicate that they also have a major incident plan in place for laboratory work (yes= 18, no=20). Approximately one third (16 respondents) also provide for rapid/special laboratory teams. In principle, the work of scientific staff in major incidents does not differ from the work arising from everyday casework. The differences lie in the number of exhibits to be handled and the urgency that needs to be applied to the work. Thus, there may not be designated rapid (or special) teams for major incident work but the regular casework teams are required to operate with larger numbers of exhibits and meet more urgent timescales. It is interesting to note that there was a relatively low positive response from the participating forensic institutes when asked about having procedures in place for the urgent handling of large numbers of exhibits (yes=15, no= 23). For those having such procedures in place it appears that they have mainly been tested through real life incidents rather than through simulations (Figure 12).

Figure 13 provides an overview of the responses from the forensic institutes to those questions asking about their confidence levels for meeting the specific problems that are likely to be encountered after a terrorist incident. Storage space seems to pose a potential problem to approximately half of the participating institutes. Further, two thirds of the participating institutes state that they have no contingency plans should casework capacity be exceeded. Clearly, these are both areas that need to be tackled.

Effective continuity procedures and anti-contamination measures will be important for future international forensic cooperation. Nearly three-quarters of the institutes are confident with their continuity procedures. Less favourable is the fact that approximately one third of the participating institutes are not confident that their anti-contamination procedures are effective.
FIGURE 7
Does your institute have experience of responding to terrorist or non-terrorist bomb incidents?

No Response (4)
Yes (22)
No (13)

FIGURE 8
Does your institute have experience of responding to bomb incidents?

Yes
No
No response

- Terrorist bomb incidents
- Non-terrorist bomb incidents
- Non-ENFSI institutes do post-blast investigation
FIGURE 9
Who directs forensic investigations at the scene?
Who decides what forensic investigations take place?

FIGURE 10
What dedicated teams and capabilities could your institute deploy at the scene?
FIGURE 11
What is included in major incident plans for scene attendance and laboratory work?

[Bar chart with categories and bars for Scene and Laboratory]

FIGURE 12
Does your institute have procedures for urgent handling of large numbers of exhibits? How have these been tested?

[Pie chart showing categories: No (23), Yes (15), Real incidents (12), Simulations (2), Not tested (3)]
FIGURE 13
In the event of a terrorist event, are you confident that you have:

- Enough trained staff
- Enough space for storage
- Enough space for investigation
- Effective communications procedures
- Effective anti-contamination procedures
- Contingency plan in place

FIGURE 14
Participation in counter-terrorist exercises?
A surprising and alarming result of the questionnaire is the fact that there are still a number of forensic institutes that claim to have no access to relevant databases. As databases play an ever increasing role in forensic science this issue urgently needs to be clarified.

**Interaction with Other Organisations**

It is instructive to examine the answers to questions A8 and A22 (Appendix Eight). These ask about the roles played by the police, prosecutors, judges, magistrates, military and security services at different stages after a terrorist incident. In the majority of participating countries, decisions about forensic examinations generally rest with the police and the prosecutors. In contrast, the survey results suggest that judges and magistrates play a more prominent role in directing the forensic investigation at the scene.

Approximately one third of the participating institutes indicate that they have no secure means of communication in place. This appears to be a significant observation that needs to be addressed.

National counter-terrorism exercises are not commonly organised with the participation of the forensic institutes (Figure 14). In addition, forensic investigation appears not to play a significant role in such national counter-terrorism exercises organised by others, even in those countries that have already experienced significant terrorist bomb incidents. In fact, forensic institutes are not widely engaged in any national planning activities relating to major incidents. The impact of such a major incident on a national forensic service provider can be enormous and hence the general lack of engagement of forensic institutes in the planning and execution of such exercises represents a serious oversight in the interests of European preparedness.
16.3 Responses from EWG Chairs (Preparedness)

Introduction

The questionnaire (Appendix Two) was sent to all 16 ENFSI Expert Working Group (EWG) chairs and 16 completed questionnaires were received by the study team for evaluation. Table 2 shows the full list of ENFSI EWG chairs.

Appendix Nine contains the list of questions in the ENFSI EWG questionnaire and wherever appropriate, the answers from the 16 respondents have been summarised alongside the questions (white on red). The use of this appendix provides a quick guide to the EWG responses and should be used with this section of the final report.

For a complete understanding of the responses, it is necessary to take into account the varying levels of English proficiency among the EWG chairs. Thus, there may have been some misunderstandings regarding the questions. For this reason, the responses from some chairs were verified by additional interviews by study team members with individual chairs.

Also, there was uncertainty among the EWG chairs regarding the questions asking for their assessments of preparedness in all the European forensic institutes. Most chairpersons were reluctant to assess the preparedness of member institutes (other than their own) on the basis of them having limited firsthand experience of all the European institutes. Thus, it is likely that most views from the EWG chairs probably reflect the situation in their own institute (and perhaps a few others that they know well). Further, it would have been impractical for the chairs to discuss all the questions with all the members of their EWG. Therefore, the responses must be viewed as largely the personal views of the chairs.

A further difficulty expressed by the EWG chairs was the fact that terrorist incidents can take many different forms and hence the involvement or relevance of a particular scientific field after a terrorist attack, may vary considerably.

For reasons of confidentiality the results of questions 5 (Which institutes would you describe as prepared?) and 6 (Which institutes would you describe as not prepared?) will not be included in the following evaluation. However, a general tendency can be deducted from the answers to question 4 (In your opinion, what proportion of ENFSI forensic science institutes have an adequate level of preparedness?) and that information is included in the following evaluation.

Question 1: Do you consider your area of forensic science relevant to counter-terrorism?

Of the 16 working group chairs, 14 consider their respective field as relevant to counter-terrorism. It is clear that Road Accident Analysis has no immediate relevance. Drugs Analysis is also not directly relevant to counter terrorism. However, drug trafficking is thought to play a considerable role in funding terrorist activities and thus drugs analysis does have an indirect role in the context of counter terrorism.

Question 2: If you answered “yes” to Q. 1, please say in what ways and, if possible, give these levels of importance (high, medium or low).

Of the 14 working groups considered as directly relevant to counter-terrorism, 8 considered their field of science as of high importance, 2 as of medium importance and 4 as of low importance (Figure 15).
It is clear that the analysis of explosives, scene of crime examination, DNA-analysis, fingerprint analysis and digital imaging (video-analysis) are of immediate relevance in post-attack activities and therefore of high importance to counter-terrorism. Forensic IT has great relevance in the case of possible cyber-terrorism, an incident which has not yet occurred but which could indeed have devastating effects. Also, forensic IT can play an important role in retrieving, decrypting and analysing electronic communication (e.g. mobile phones) and digital data carriers, e.g. to trace individuals, identify criminal groups and reveal their plans.

Document analysis (e.g. as a means of identifying forged and counterfeited identity or travelling documents) and the analysis of fibres (e.g. textile intelligence work such as the establishing of connections between different crime scenes, analysis of labels regarding production, origin, distribution, time frame of distribution of certain textiles, video imaging of textiles and clothing) may play a crucial role in quickly identifying individuals (be it terrorists or victims) in the wake of an attack. Handwriting analysis and speech and audio analysis must also be viewed as important in the identification of suspects or their written or spoken messages. However, their relevance was considered as medium as they usually become important at a later, less acute stage of investigations. The relevance of firearms examination, marks examination, paint & glass examination and fire investigation were considered as of low importance with respect to counter-terrorism. However, it must be taken into account that the level of importance of individual fields may change depending on the specific nature of an attack.

**Question 3: How would you describe the level of preparedness in your area of forensic science?**

Of the 16 EWG chairs, 6 rated the level of preparedness in their own area of forensic science to be high, 6 as medium and 3 as low. One chair did not consider that they were in a good position to provide an opinion based on the activities of individual members within their EWG. The results are presented in Figure 16.

It is important to note that for the scientific areas of high relevance (questions 1 and 2), no chairs rated the general level of preparedness to be low (even if differences in preparedness can be detected across the wide forensic community).

**Question 4: In your opinion, what proportion of ENFSI forensic science institutes have an adequate level of preparedness?**

As indicated above, there was much uncertainty amongst the EWG chairs regarding questions in this area. A few chairs (e.g. fingerprint analysis) held the opinion that all institutes have an adequate level of preparedness. Nevertheless, the general comments from most respondents pointed in the direction of a possible high level of preparedness in the well-equipped and long-established western European forensic institutes in contrast to some of the eastern European forensic institutes struggling with low budgets and less advanced equipment. The general results are presented in Figure 17.
FIGURE 15
Do you consider your area of forensic science relevant to counter-terrorism? What level of importance?

- High (5)
- Medium (4)
- Low (5)
- No (2)

FIGURE 16  Level of preparedness

- High (37%)
- Medium (38%)
- Low (19%)
- No comment (6%)
FIGURE 17
What proportion of ENFSI institutes have an adequate level of preparedness?

- Don't know (10)
- 10% prepared
- 15-20% prepared
- 50% prepared
- 100% prepared

FIGURE 18
In your area of forensic science, which of the following need significant improvement?
**Question 7: In your area of forensic science, which of the following do you think need significant improvement?**  
*Health & Safety, Training & Competence, Deployment of Specialist Team, Quality, Science & Technology, Management & Contingency Planning, Other (please list)*

The results can be summarised as follows:

- 13 out of 16 chairs were of the opinion that training & competence need significant improvement (High= 4, Medium= 2, Low= 1, Unspecified= 6).
- 8 out of 16 chairs were of the opinion that deployment of specialist teams needs significant improvement (High= 4, Medium= 1, Low= 0, Unspecified= 3).
- 7 out of 16 chairs were of the opinion that quality needs significant improvement (High= 1, Medium= 2, Low= 0, Unspecified= 4).
- 7 out of 16 chairs were of the opinion that science & technology need significant improvement (High= 1, Medium= 2, Low= 0, Unspecified= 4).
- 6 out of 16 chairs were of the opinion that management & contingency planning need significant improvement (High= 1, Medium= 1, Low= 0, Unspecified= 4).
- 3 out of 16 chairs were of the opinion that health & safety need significant improvement (High= 1, Medium= 1, Low= 0, Unspecified= 1).

Clearly, training & competence was chosen most frequently (see **Figure 18**) as an area in need of significant improvement. In addition to the listed areas of improvement, the need for a common set of standards and common databases was also voiced.
16.4 Responses from National Correspondents for Terrorism Matters (NCTs)

The questionnaires (Appendix Three) were distributed via the Eurojust network of National Correspondents for Terrorism Matters (NCTs) [for 7 EU Member States] and via Eurojust Contact Points [for 2 non-EU Member States]. Replies were received from all 9 countries:

- Croatia (HR) candidate country
- France (FR)
- Germany (DE)
- Poland (PL)
- Spain (ES)
- Sweden (SE)
- The Netherlands (NL)
- Turkey (TR) candidate country
- United Kingdom (UK)

Throughout the following evaluation the whole group are referred to as NCTs (even though they include two Eurojust Contact Points).

The responses are analysed within the following sections with reference to the specific questions asked.

**Question 1 – Inside your own country**

**(a) What kinds of cooperation already exist?**

Some respondents gave a detailed description of the relationships between the different law enforcement and judicial authorities in their countries. Although they represent 9 different legal systems, in considering existing domestic cooperation between agencies using forensic science in the fight against terrorist crime, all respondents having knowledge of this area described that cooperation in a positive light. Respondents expressed satisfaction with the cooperation between laboratories, crime-scene investigators, science institutes, courts, prosecutors and investigators within their own countries.

One respondent commented that investigators sometimes have problems with the length of time forensic science institutes take for their work. However, prosecutors understand that forensic investigations can take a long time. They accept this as they value the high quality standards of the forensic work, which are vital for bringing cases to court.

**(b) What improvements could be made?**

In spite of the positive comments about domestic cooperation, four respondents made some suggestions for improvements. Some of these suggestions were exclusively relevant to the respondent country rather than being of potential general application. Such national topics included:

- the implementation of an existing proposed national project to combat the threat of terrorism,
- the creation of a unique command to coordinate from the inception, the performance of the different departments involved. This command could be responsible for:
  - distributing the collection of traces, signs or marks in a criminal act,
  - performing the necessary forensic procedures and obtaining the results,
  - facilitating the assignment of technical skills,
  - communicating between different services,
  - developing the judicial file without detriment to the main powers assigned to the magistrate or prosecutor,
• the gathering of the separate national forensic service providers under the umbrella of the same administrative unit,
• the standardisation of common action protocols in order to avoid duplication and to ensure the most efficient distribution of activities between different scientific laboratories.

Suggestions with a potentially wider application were:

• The involvement of forensic scientists at an earlier stage of the investigation than at present, in order that they can give advice or assist during searches of suspect premises. The forensic professional could indicate the crucial items to look for. A forensic scientist at the search scene could screen all seized items and indicate which are relevant to send to the laboratory for examination. Police should contact the forensic scientist whenever they have the slightest doubt or need during a search.

• the examination of forensic material, such as DNA, in the very early stages of criminal investigations. This type of early forensic examination could be used to help the police to evaluate, and change if necessary, the direction of their investigation. Early forensic examinations of this type would need a lower degree of certainty than would be required for judicial proof, but could be processed faster by the laboratory and would produce quick results.

Four respondents did not identify any changes that might improve cooperation within their own countries whilst one respondent indicated that they had insufficient knowledge of the field to make any suggestions for improvements.

**Question 2 – National Plan**

**Does your country have a national plan? If yes, does it include a specific part dealing with the provision of forensic science services?**

Six respondents confirmed that their country has some form of national plan or agreed operating procedures in the event of a terrorist attack. However, of these, four reported having no forensic element to their national plans or procedures or to their ongoing work in this area. Only one country described having a national plan in the event of a major terrorist incident which includes a forensic response by specially trained counter-terrorism officers.

Two respondents described that, in the event of a terrorist attack, mandatory national legislation and legal procedures apply, which determine the roles and responsibilities of those involved, including the forensic service providers. Of these two respondents, one reported that discussions are underway to create a national action protocol for forensic doctors and forensic scientists in major disasters and events with a large number of victims. This will be a technical, organisational document aimed at regulating the technical assistance to courts and judges (e.g. in identifying bodies and determining the cause and circumstances of death). The other respondent in this pair reported that it has a procedure for establishing an action plan in the event of a crisis.

One country has ongoing work developing a national plan in the event of a major terrorist attack.

One country stated that the judiciary has not developed any emergency plans of its own, though it is not clear whether this means that there is also no forensic plan.

One respondent did not answer this part of the question.

**Has the forensic plan been tested?**

Three countries confirmed that their national plans had been tested. Of these, one commented that national exercises tend to focus on administrative responsibilities and tend to
be designed on unrealistic and complicated scenarios. They went on to point out that to really achieve effective work at the scene, a different kind of exercise is needed; an exercise at a more operational level based on realistic scenarios. In the case of the UK, the plan has been tested in real-life scenarios, such as during the terrorist attacks and attempted attacks in London in July 2005.

Six countries did not comment on whether their forensic plan has been tested.

**Question 3 – International Cooperation**

**What changes do you believe would have the greatest impact to improve cooperation internationally?**

Four respondents were of the view that international forensic cooperation does not meet with any legal obstacles. Two respondents felt unable to answer this question due to lack of experience in terrorism cases or knowledge of requests for forensic cooperation.

Other comments and suggestions received included:

- Some parts of the world, which are currently experiencing a significant development in terrorist movements, do not have laboratories equipped to ensure reliable scientific analysis of evidence gathered after a terrorist attack. The creation of a European laboratory equipped with the most sophisticated equipment and able to use methods recognised by all of the EU Member States would be an interesting prospect.

- Although there are no legal obstacles to international cooperation, prosecutors have encountered some problems with a lack of willingness to co-operate. With some countries, cooperation works well whereas it is more difficult with others.

- It is imperative that states fulfil their existing obligation to provide Eurojust with information concerning prosecutions and convictions for terrorist offences in compliance with Council Decision 2005/671/JHA Article 2(3b) and (5).

- The greatest impact to improve cooperation between countries would be common operating standards and agreed EU standards in terms of fingerprints and DNA to enhance the interoperability of systems.

- It would be useful for EU countries to identify central forensic management teams for terrorism investigations. Such teams can perform a pivotal role of tasking and coordinating forensic services nationally, as single points-of-contact for this type of cooperation.

- Increased EU training would be a useful way to improve cooperation and thereby share experience and forensic methods.

- Data protection issues for European forensic counter-terrorism (CT) databases need to be addressed so that personal biometric data can be kept for agreed time periods in CT cases.

**Question 4 – Experience of Forensic Cooperation**

(a) **As the requesting country**

Three countries have experience of making requests for forensic cooperation and either identified no obstacles to cooperation or did not know of any problems.

One respondent reported that, in a number of cases, it has sent items to forensic science institutes abroad for specific forensic investigations. Domestic judges have always accepted
the results from such investigations. Well-defined criteria are used when deciding whether to send items to forensic institutes, laboratories or agencies abroad for forensic investigation (e.g. an accredited Quality Assurance system).

There have been some bad experiences when making requests to countries where standards for quality assurance are not as well defined as in most western European countries. In some cases, investigators were not able to reveal relevant information. At least one case is known where the investigation actually destroyed relevant information though, with the help of other institutes, this information was ultimately retrieved.

One respondent stated that, when requesting information from abroad through Interpol or Europol, it takes months to get a reply. The best experiences have been in cases where prosecutors requested information from abroad through direct contact rather than through Interpol or Europol. In such cases, it helps enormously if the two prosecutors know each other personally.

One respondent reported that requests for judicial cooperation are made according to the applicable international Conventions. This requires more time than direct cooperation, which might be an obstacle to obtaining the most satisfactory results.

In terms of fingerprints (and photographs) specifically, the main issues are:

- the quality of the fingerprints,
- the existence of an electronic system (of sufficiently high quality and resolution) to allow copies to be sent electronically and thereby searched quickly in automatic fingerprint identification systems. The alternative is delay caused by the requirement to send hard copies of the information.

One respondent had not yet needed to make any requests for forensic information whilst another respondent had no knowledge of cases involving forensic cooperation.

(b) As the country receiving the request

Three countries reported that they have experience of receiving requests for forensic cooperation. No specific obstacles to cooperation were identified by them. One commented that, "in general one could say that time is the problem when it comes to international cooperation".

One respondent was not aware of any problematic examples arising in such situations.

One respondent indicated that their national investigators and forensic scientists are sometimes reluctant to act as legal experts for casework investigations abroad. There are concerns about having to appear as an expert witness in a court in another country. This complicates matters.

OVERVIEW OF NCT RESPONSES

All respondents with knowledge of existing cooperation between the agencies involved with forensic science inside their own country expressed satisfaction with it. Half of them saw no need to make any changes to improve cooperation. The other half suggested the following as being likely to have the greatest impact on improving cooperation:

- the involvement of forensic scientists with investigations at an earlier stage than happens at the present time,
• the screening examination of forensic material, such as DNA, in the very early stages of criminal investigations,
• the creation of a unique command to coordinate from the inception, the performance of the different departments involved,
• the standardisation of common action protocols.

Most countries have either a national plan or a legislative process that comes into play in the event of a major terrorist incident. However, it was clear from the replies received that this rarely, if ever, includes a specific forensic element. Given two of the suggestions above, the Member States should consider developing their national plans to incorporate a specific forensic element to ensure the earliest possible forensic response in the aftermath of a terrorist incident.

The NCTs generally talked in a positive way about international cooperation, reporting no legal obstacles. Although some recommendations for improvements were made, these did not include suggestions for changes to legal requirements or systems. The suggestions made were:

• the establishment of a centralised command structure coordinating and tasking forensic services,
• the sharing of technical and scientific reports, through Eurojust, with judicial authorities in other countries,
• the establishment of common operating standards,
• the agreement of EU standards in terms of fingerprints and DNA,
• increased EU training.

Two-thirds of respondents reported no known obstacles to requesting forensic cooperation from other countries. Problems which were identified were:

• the difficulties when making requests to countries where forensic standards for quality assurance are not well defined,
• the quality of fingerprints and the existence of an electronic system of sufficiently high quality and resolution to allow copies to be sent electronically.

Of those respondents with experience of handling incoming requests for international cooperation in the field of forensic science, no obstacles were identified. One potential complication is that experts (police as well as forensic) are sometimes reluctant to act as experts for casework investigations abroad because of concerns about appearing as expert witnesses in courts in other countries.

In conclusion, the NCTs are generally satisfied with both national and international cooperation between the various agencies using forensic science in the fight against terrorism. Their suggestions for improvements centre on:

• early involvement of forensic professionals,
• creation of a central command to task and coordinate the forensic response,
• improved QA standards (and EU training to achieve this),
• standardisation of procedures,
• adequate electronic systems to handle technical information.

16.5 Responses from Europol Liaison Bureaus

The questionnaire used for the Europol Liaison Bureaus was the same one as used for the Eurojust National Correspondents for Terrorism Matters (NCTs) – see Section 11.6. The questionnaires (Appendix Three) were distributed via the network of Liaison Bureaus at Europol. It was addressed to the 27 Liaison Bureaus from the EU Member States as well as to the 13 Liaison Bureaus of the non-EU states and third parties. The Liaison Bureaus had the
The responses are analysed within the following sections with reference to the specific questions asked.

**Question 1 – Inside your own country**

**(a) What kinds of cooperation already exist?**

Some respondents gave a description of how forensic science providers are organised in their own countries. Different models are presented, such as one central laboratory, one main provider cooperating with other institutes. Some respondents mentioned specific situations, such as:

- one ISO17025 accredited forensic laboratory designated as the single point-of-contact for crime scene work and laboratory analysis for terror attacks and cases involving the use of explosives,
- an agreement between the forensic institute and the pyrotechnic service,
- a cooperation protocol assigning the responsibility for investigating terrorism crime scenes to one forensic provider. Cooperation agreements were mentioned by other respondents and not only for terrorism cases.

Respondents expressed satisfaction (or remained neutral) with the cooperation between forensic laboratories and other agencies / authorities. There were no expressions of dissatisfaction.

One respondent expressed a view that forensic science plays a greater role in solving crimes rather than averting threats.

**(b) What improvements could be made?**

In spite of the positive comments about domestic cooperation, some suggestions for improvements were also made:

- To create a central forensic institute bringing all laboratories under the same management authority to facilitate communication and the administration related to evidence transfer.
- To establish services such as:
  - A Bomb Data Centre
  - Pyrotechnic Emergency Units
  - An Automatic Ballistic Identification System
- To raise awareness of the existing procedures amongst all parties involved.
• To improve the software used for the national bomb database and its setup. The database is currently separated from the competent forensic laboratory.

• To unify the services involved and to ensure that the staff are aware of the procedures and are able to implement them.

**Question 2 – National Plan**

**Does your country have a national plan?**

Thirteen respondents confirmed that their country has some form of national plan or agreed procedures in the event of a terrorist attack. In some countries, these procedures are not specific for terrorism events but are applicable for any kind of major event.

In one country, a national plan is under development.

**If yes, does it include a specific part dealing with the provision of forensic science services?**

Four countries have no specific forensic element in their national plans or procedures. Six countries indicated that their national plans (or procedures) for a major terrorist incident include provisions on forensic science.

Three respondents did not answer this part of the question or their answer was unclear.

**Has the forensic plan been tested?**

Three countries confirmed that the forensic part of their national plan has been tested. In one country, experts from the forensic laboratory participated in exercises where weapons of mass destruction were demonstrated. In another country, forensic services are involved in exercises (particularly through the use of DVI teams).

One country responded that their national plan has not been tested as there have been no terrorist attacks in their country. Three countries did not comment on whether their forensic plan has ever been tested.

Two countries stated that forensic planning is not included in major emergency exercises and that their forensic institute has never been involved in any major emergency exercise.

**Question 3 – International Cooperation**

**What changes do you believe would have the greatest impact to improve cooperation internationally?**

Some respondents highlighted the difficulties associated with the legal systems in some countries, or with the lack of homogenised legislation.

Some respondents called for more exchange of scientific knowledge and experience. Besides the existing ENFSI Expert Working Groups (EWGs), other different forms of cooperation were suggested:

• Common emergency exercises to facilitate the harmonisation of methods and procedures at the crime scene after a terrorist attack.

• Creating small groups of international experts.
• The organisation of seminars and workshops.

• The possibility for forensic experts to request and quickly obtain technical assistance from other forensic experts.

Problems associated with the incompatibility of data were also identified. The exchange of fingerprints was considered to be particularly difficult. Council Decision 2008/615/JHA (arising from the Prüm Treaty) was seen as a hopeful step for improvement. The plan to establish a European Bomb and CBRN Database at Europol was also seen to be very important by one respondent.

One respondent listed different possibilities to share forensic information and gave a view that the most significant channel follows from Council Decision 2008/615/JHA (arising from the Prüm Treaty). This channel is systematic and, in practice, produces, thousands of hits for DNA and fingerprints. This has resulted in hundreds of crimes being solved and the identification of many criminals, often appearing under false names. This country also emphasised the importance of standardised processes and the need to find ways to guarantee the quality of the forensic data.

A view was expressed that the possibility of conducting checks against “civil” databases in the future would be an advance. Such “civil” databases include the European Visa Information System (VIS) and EURODAC (a European fingerprint database to assist asylum procedures).

One respondent called for an increased exchange of data (DNA, fingerprints, explosives analyses) through Interpol and Europol channels, and also called for the involvement of criminal analysts.

One respondent suggested that countries that have already been affected by terrorist activity should use their experience to draft guidelines for dealing with terrorist cases.

**Question 4 – Experience of Forensic Cooperation**

**(a) As the requesting country**

One country gave an example where the identification of cell phone subscribers was needed and highlighted the ease of obtaining this information from one country and the impossibility of obtaining it from others.

Another country explained that their needs are now limited to the forensic information derived from databases. In the past, they had to send exhibits abroad when they did not have the scientific capability to perform some analyses. No hindering or helping factors were described.

One country listed cases where they had needed to exchange information in areas such as DNA, fingerprints, fake documents, phone call records, explosives, face recognition, and terrorism financing. Another respondent reported that their main experience had been in the exchange of fingerprints and DNA profiles. One country exchanges fingerprint and DNA data with others but has not exchanged information relating to terrorism cases.

Problems with the file format for fingerprint exchange were highlighted by one respondent.

One respondent specifically mentioned the case of the Tsunami in Bali.

Another respondent has not conducted any exchange of forensic information.

Three countries did not provide any examples of relevant casework.
(b) As the country receiving the request

One country receives requests for forensic information, mainly for the identification of cell phones subscribers. A specific case was mentioned where such a request led to an investigation being opened in the requesting country.

Several countries reported that they mainly receive requests for DNA profiles and fingerprints. Another respondent receives requests for fingerprints and DNA profiles but not in cases relating to terrorism. Problems with the file format for fingerprint exchange were pointed out by more than one respondent. A lack of homogenised legislation was also highlighted.

One respondent listed cases where they had received requests for forensic information such as DNA, fingerprints, photographs, stolen documents, phone numbers and explosives.

One country mentioned a case where assistance in relation to the analysis of explosives was requested.

One respondent mentioned a specific case relating to ammunition in a neighbouring country.

Two respondents reported that they had not received any requests for forensic information.

Two respondents did not provide any examples of relevant casework.

OVERVIEW OF EUROPOL LIAISON BUREAU RESPONSES

There was a high diversity in the responses, which probably reflects the diverse backgrounds of the actual respondents to the questionnaire sent out through the Liaison Bureaus at Europol. Thus, it is difficult to draw universal conclusions. Nevertheless, some general themes can be derived from the responses and these are reported below.

All respondents expressed satisfaction (or remained neutral) with the cooperation between forensic laboratories and other agencies / authorities. There was no expression of dissatisfaction.

Some suggestions for improvement were made:

- establishing or improving specific databases;
- unifying structures;
- raising the awareness to procedures.

All respondents confirmed that their country has some form of national plan or agreed procedures in the event of a terrorist attack. In some countries, these procedures are not specific for terrorism events but are applicable to any kind of major event. It was reported that half of these plans include provisions on forensic science.

Regarding international cooperation, a number of difficulties were highlighted and suggestions for improvement were included in some instances:

- Difficulties associated with the legal system of some countries, or with the lack of homogenised legislation.
- Calls for more exchange of scientific knowledge and experience (especially with the contribution of countries which have already been affected by terrorist activities).
- Problems associated with the incompatibility of data (the exchange of fingerprints is particularly difficult).
- Call for an increased exchange of data (DNA, fingerprints, explosive analysis information) through Interpol and Europol channels.
- Call for the involvement of criminal analysts.
One respondent listed the different possibilities for sharing forensic information and emphasised that the most significant is the approach originally adopted in the Prüm Treaty (now incorporated into EU legislation with Council Decision 2008/615/JHA). This exchange is carried out systematically and, in practice, produces thousands of hits for DNA and fingerprints. This has resulted in hundreds of crimes being solved and the correct identification of criminals, often appearing under false names. This country also highlighted the importance of standardised processes and the need to find ways to guarantee the quality of the forensic data. A view was also expressed that the possibility of conducting checks against civil databases (such as VIS and EURODAC) in the future would be an advantage.

16.6 Responses from Outside of Europe

The work to collect evidence from outside of Europe was always conceived as a very basic survey to help test the hypothesis that the general obstacles to forensic cooperation inside Europe are likely to be a reflection of the same obstacles encountered everywhere across the world.

The questionnaire (Appendix Four) was dispatched through forensic network organisations and personal contacts to various regions of the world (Australia and New Zealand, North America and South & Southern America). In addition the same questions were sent to the UN Office on Drugs and Crime (UNODC). See Section 11.4 for details of the distribution.

Specific responses were received from:

- Vincent Otieno Alego (AFP)
- Herman Metz (AFP)
- Stephanie Reilander (Canada, ASCLD President)
- Gregory Carl (FBI, USA)
- Barbara Remberg (UNODC)

It is these responses have been evaluated within the current section of the report.

Broad Experience of the International Respondents

The group of respondents (and their respective organisations) provide a very wide range of experience relevant to the present study. With reference to such forensic cooperation there were many specific incidents mentioned:

**Terrorist bombs incidents or attempted incidents**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Incidents</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFP</td>
<td>Bali bombings (2002)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bali bombings (2005)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sri Lanka bombing (2006)</td>
<td></td>
</tr>
<tr>
<td>FBI</td>
<td>Richard Reid a shoe bomber on a flight between the UK and the USA (2001)</td>
<td>Deployment of forensic evidence recovery teams or subject matter experts on hundreds of occasions in numerous countries including Pakistan, Saudi Arabia, Italy, Yemen, Phillipines, Indonesia, and various countries in Africa.</td>
</tr>
</tbody>
</table>

**Natural Disasters**

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Incident</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFP</td>
<td>Tsunami, Thailand</td>
<td>2004</td>
</tr>
</tbody>
</table>
Capacity Building and Training


UNODC  Numerous examples of work with countries to improve national forensic capacity and capability.

FBI  FBI International Training Assistance Unit (ITAU) offers many different overseas courses with many of them related to forensics and crime scene management. The forensic courses includes: Basic Forensics, DNA Analysis, Fingerprint Analysis, Firearm and Ballistic Analysis, Major Case Management, Police Role in Combatting Terrorism, Post-Blast Investigations, Terrorism Crime Scene Investigation and Weapons of Mass Destruction.

Worldwide Forensic Cooperation (Obstacles)

Although this group of respondents is relatively small, their broad experience and their geographical spread provide a very useful foundation for considering the general obstacles to forensic cooperation across the globe.

In general, the respondents talked in a positive way about international forensic cooperation and provided numerous examples of satisfactory outcomes. Nevertheless, some general problems were acknowledged. The issues that were highlighted are listed below:

Forensic capacity and capability building (enhancing preparedness)

- The lack of a coordinated approach between developed countries in building forensic capacity and capability in developing and third world countries.
- When planning programmes to develop forensic capacity and capability, that planning often lacks a detailed critical assessment to ensure that the programme meets the country specific needs for combating international cross-border crime.
- When forensic capacity and capability building programmes are implemented, poor quality implementation often leads to inadequate infrastructure, compatibility, robustness and sustainability.
- Although funding might be available from various sources (international organisations or donor nations) for the initial forensic capacity and capability building programme, the funding for the long-term support of the new forensic resource is very often inadequate. This is often constrained by the financial cycles of the funding providers that do not allow long-term commitments.
- Forensic capacity and capability building is often hindered, in the longer term, by the fact that the capable and enthusiastic staff trained in the initial programme are the most likely people to move on to other roles through promotion opportunities.

Casework Cooperation

- Before engaging in casework for another country, to address a wide range of questions:
  - whether the country uses capital punishment,
  - the requirements for in-person testimony,
  - who will pay for the work and expenses,
  - protocols for analysis,
  - reporting mechanisms,
  - the need for the work to be witnessed by third parties,
  - the nature of the other country’s judicial system.
• Space for exhibit storage after a major terrorist incident can be a problem.

General

• The lack of forensic network organisations like ENFSI, ASCLD and SMANZFL within some regions of the world (Asia, Africa, Caribbean).

• The lack of standardisation for forensic databases around the world (e.g. DNA and fingerprints).

• A lack of consistency between countries is hampering the ability of law enforcement to respond to crimes and terrorist attacks. The sharing of information is more valid, scientifically and legally when forensic scientists apply uniform testing methods.

• Different cultures, interests and expectations.

• Language differences.

• Differences in legal requirements and procedures.

• Specific national legislation and national security clearance regulations can inhibit the sharing of some information (but higher level scientific work, excluding the case context, is usually exempted).

• Territoriality.

Worldwide Forensic Cooperation (Overview)

There are slight differences in emphasis amongst the respondents from around the world when compared with the evidence gathered from the various stakeholder groups within Europe. Some of this arises because the worldwide international respondents are more often involved with forensic cooperation involving developing countries and third world countries. Nevertheless, there are overall striking similarities between the obstacles to forensic cooperation highlighted by the worldwide international group and those highlighted by the European groups. This observation is no major surprise and does, in fact, support the general hypothesis proposed at the beginning of this section. That is, that the general obstacles to forensic cooperation inside Europe are likely to be a reflection of the same obstacles encountered everywhere across the world. Nevertheless, the conclusions drawn from this quick and limited survey around the world must be seen as preliminary and point towards the need for further work to explore global forensic cooperation in far greater detail.
17 Overview - Preparedness of European Forensic Institutes

Most evidence relating to the preparedness of the ENFSI forensic institutes to handle a bomb related incident has been obtained from the questionnaire responses received from the ENFSI directors and ENFSI EWG chairs (Sections 16.2 and 16.3).

With reference to the preparedness of individual institutes the self assessments of the ENFSI directors within their questionnaires provide the most valuable overview. In summary, it appears that many of the participating institutes are well prepared to deal with small-scale or medium-scale bomb incidents. A few already have experience of handling large scale bomb incidents and have learned about preparedness from this practical viewpoint. There is a strong knowledge base on preparedness spread amongst many forensic institutes and this will provide an important foundation for the future. The collection of this knowledge, for the future benefit of all, will be an important work stream for further improving European forensic preparedness.

Frequently, the questionnaire responses from the directors have pointed out that preparedness is, to a large extent, dependent on the scale of an incident. Thus, the need for international forensic cooperation after a major incident will probably remain essential for many institutes. Furthermore, there are strong indications from the various director responses that considerable work remains to be done to address various gaps across several areas:

- At the present time only about 50% of the participating institutes have major incident plans in place for scene attendance and laboratory work. Further, less than 50% of forensic institutes have procedures in place for the urgent handling of large numbers of exhibits. In addition, two thirds of the participating institutes specifically state that they have no contingency plans should casework capacity be exceeded.
- Storage issues in the event of major incidents appear to be problematic for many forensic institutes.
- Secure communication mechanisms are needed by some institutes.
- A lack of confidence was expressed in local anti-contamination measures by over a third of the participants, in the event of a terrorist incident.
- A lack of confidence was expressed in effective local continuity procedures by a quarter of the participants, in the event of a terrorist incident.
- There is a low level of engagement between the law enforcement community and the forensic community in the planning for major incidents and the planning of national major incident exercises. Furthermore, it is uncommon for forensic institutes to be invited to participate in such national major incident exercises.
- Issues preventing access to forensic databases for some institutes/countries need to be explored.

The results from the ENFSI EWG responses reinforce these general observations but it is also clear that many of the EWG chairs indicated that they were unsighted about the general state of preparedness within their own scientific disciplines that exists within individual institutes across Europe. It would appear that the current role of the EWG chair does not allow the individuals concerned to gain that knowledge in an effective way (part-time role, pressures from their regular jobs, limited opportunities to visit a wide range of European forensic institutes, a limited number of EWG meetings each year). EWGs appear to offer the best mechanism for driving up quality standards within specific forensic scientific disciplines. However, if that is to be realised, there will need to be ways by which the EWGs and their
chairs can maintain an accurate and up to date overview of their specific scientific disciplines across all European forensic institutes. This is a difficult task but appears to be an essential one, if quality standards are to be driven up over the whole of Europe and thereby forensic cooperation is to be encouraged.

The EWG chairs provided some interesting views on the areas that they consider need significant improvement within their own scientific areas. Four areas were selected by 3 or more EWG chairs with either high or medium priority. These areas were:

- Training and competence
- Deployment of specialist teams
- Quality
- Science & technology

It is noteworthy that training and competence was chosen by the most EWG chairs (6 with high or medium priority) as the area in need of significant improvement.
18 Overview – Forensic Cooperation

Evidence on forensic cooperation was collected for all groups questioned during the course of the current study. This included the law enforcement community (the Eurojust NCTs and the Europol Liaison Bureaus) and their evidence has been evaluated in Sections 16.4 and 16.5, respectively. Further, the views of the international respondents from around the world on the obstacles to forensic cooperation have been evaluated in Section 16.6. Further, discussions have taken place with the various organisations that currently facilitate forensic cooperation: ENFSI, Europol, Eurojust and Interpol, to understand their perspectives on current and future forensic cooperation.

The largest set of evidence on forensic cooperation has been collected from the forensic community through the questionnaires to the ENFSI directors and the ENFSI EWG chairs. These have been further supplemented by individual interviews between study team members and forensic experts known to them through scientific networking. The total volume of data collected from the forensic community is very large. Furthermore, the questionnaires were deliberately designed to ask open-ended questions to provide opportunities for the respondents to provide detailed distillations of their diverse experiences relating to forensic cooperation. Thus, the nature of this ‘soft data’ required extensive evaluation work in order to extract the meaningful content. This was achieved by the initial extraction of key ideas from each questionnaire. These key ideas were of two types: firstly, the problems, obstacles and limitations associated with forensic cooperation and secondly, the remedies, solutions and potential enhancements to improve forensic cooperation. Following this initial extraction of the key ideas from the questionnaires, the problems, obstacles and limitations were categorised under various themes. Appendix Ten provides the categorised data from all responses received from the forensic community. It should be noted that this published version of the data has been re-presented for the final report in such a way as to respect the confidentiality of the respondents.

The categories selected to present the data in Appendix Ten are somewhat arbitrary arising after several re-organisations. Nevertheless, the resulting themes do provide a good overview of the various obstacle areas highlighted by the various respondents. The headings used in Appendix Ten (in no particular order) are listed below:

<table>
<thead>
<tr>
<th>Legal matters</th>
<th>Cultural factors</th>
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<tbody>
<tr>
<td>Language problems</td>
<td>Coordination of forensic cooperation</td>
</tr>
<tr>
<td>Single-points-of-contact</td>
<td>Security</td>
</tr>
<tr>
<td>Method standardisation / quality</td>
<td>Data sharing / Data protection / Databases</td>
</tr>
<tr>
<td>Personal contacts vs Official channels</td>
<td>Limited time &amp; resources to cooperate</td>
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<tr>
<td>Training needs</td>
<td>Sustainability &amp; continuity</td>
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<tr>
<td>R &amp; D Project activity</td>
<td>Commercial factors</td>
</tr>
<tr>
<td>Communication between forensic experts</td>
<td>Support turned away</td>
</tr>
<tr>
<td>Exchange of foreign experts</td>
<td>Political</td>
</tr>
<tr>
<td>Long term regional support</td>
<td>Miscellaneous</td>
</tr>
</tbody>
</table>

The categorised data has been the primary source by which the study team members have identified the major obstacles to European forensic cooperation. Further, they have provided the starting point to the recommendations that are made at the end of this final report (Chapter 19). In some instances the recommendations arise directly from an idea proposed by one or more respondents in the questionnaires. In other instances the recommendations arise from problems identified by the respondents in the questionnaires followed by detailed work by the study team to identify appropriate solutions.
Thus, the reader is referred to Chapter 19 (Conclusions and Recommendations) which contains detailed discussions about the specific obstacles to forensic cooperation that have been identified in this study. In that Chapter the evidence is presented for each problem area followed by one or more recommendations on how that problem might be addressed.

As a conclusion to the present Chapter giving an overview of forensic cooperation results it is instructive to make reference to one specific question within the questionnaire to the ENFSI directors. This is the last question (B13) that asks about forensic cooperation in the future. It specifically asks “Would you consider cooperating (giving or receiving assistance) with other forensic science institutes in the future?” It asks the question for both national cooperation and international cooperation. The future appetite for forensic cooperation across Europe is clearly a factor that will play a very important part in determining the long-term success.

The first encouraging factor is that 35 ENFSI directors (from the 39 questionnaires received) indicated “yes” (indicating that they would consider cooperating with other forensic science institutes in the future). This is a very high percentage but it might also be equally instructive to gain further clarification from those that did not answer the question (2) and those who said “no” (2). Forensic cooperation is at the very core of the ENFSI organisation and therefore the responses need to be considered in this context.

For the 35 ENFSI directors who gave positive responses to future cooperation, their further responses to the sub-questions are shown in Figure 19, where the bars represent the numbers of respondents giving positive responses to each sub-question. Overall, there are strong indications that many forensic institutes are interested in cooperating in many different ways. The most striking observation is the low responses (both national and international) when asked “would you consider paying for work or services from another institute?” To some extent, these results probably reflect the fact that many institutes are currently operating on tight local budgets and don’t have the money available to spend on external services. Nevertheless, from the other perspective, the provision of forensic support to another institute always costs resources (thereby also eating into local budgets). The inevitable consequence of forensic cooperation is that those institutes providing the most support will always experience the largest pull on their resources. Undoubtedly, this will be an area for much future debate as consideration is given to the ways that resources can be found to allow forensic institutes to support each other.
FIGURE 19
Would you consider cooperation with another institute in the future?

Nationally
Internationally
Positive Responses
19 Conclusions and Recommendations

19.1 Study Outcomes (Overview)

The current study has covered a very wide scope in looking at all aspects of forensic cooperation involving both the forensic community and the law enforcement community. The outcomes cover three main areas, as listed below:

International Forensic Cooperation Model

An international forensic cooperation model has been developed that provides a framework for understanding the complex interactions that take place within the broad area of forensic cooperation. This is a ‘descriptive model’ that portrays the current flows of forensic information across Europe. The model clearly differentiates between two types of forensic information: forensic data and forensic expert opinion. Further, the model illustrates the two different communities that handle forensic information: the forensic community and the law enforcement community. These basic concepts have far reaching consequences when fully developed within the final model.

The real value of this model lies in its ability to visually represent the many complex interactions that occur between the various forensic stakeholders. This clarification provides a framework for understanding where forensic cooperation is working well and where there is significant scope for improvement. From this viewpoint this ‘descriptive model’ takes on a dynamic role as a central tool for driving future change.

The international forensic cooperation model also addresses a key deficit. This is the urgent need for all stakeholders to share a common vocabulary when talking about forensic cooperation matters at a strategic level. Clearly, these stakeholders include the forensic community and the law enforcement community (as indicated within the model). However, they also include those providing funds, those driving wider international law enforcement initiatives and the many other organisations influencing forensic services at national and international levels. These groups include the European Union and national governments.

Thus, the study team puts forward this international forensic cooperation model to the EC for acceptance and subsequent promotion throughout Europe, with the hope that this tool can find many applications within various contexts where forensic science is discussed at a strategic level. In this way it is hoped that the model will provide a valuable contribution to the future development of forensic cooperation across Europe.

Forensic Preparedness

Good progress has been made in understanding the wide landscape of European forensic preparedness to deal with major terrorist explosive incidents. It is apparent that there are large differences in the states of preparedness amongst European forensic institutes. This is not a surprising outcome and reflects the different experiences of terrorism in different European countries and the various perceived levels of national threat.

The anonymous results of the surveys on preparedness have been presented in this final report, whilst the raw results are available for potential use in future work. The logical follow-on activity from this initial survey work will be to pull together the best approaches for achieving preparedness from the different forensic institutes and publish the findings as a best practice manual for all to use. This recommendation is included within the following sections.
Forensic Cooperation

The practical experiences of many groups in the area of forensic cooperation have been obtained throughout the study and the specific obstacles encountered have clearly highlighted areas where forensic cooperation could see significant improvement. The analysis of this diverse information has been undertaken in the overall context of the forensic cooperation model leading to the formulation of the study recommendations discussed in the sections that follow.

19.2 Study Recommendations

This chapter of the final report draws upon the evidence that has been gathered throughout the study from all sources. It takes into account the information gathered on the preparedness of European forensic institutes and the various obstacles to forensic cooperation that have been identified. From this information a series of recommendations have been drafted to address the current shortcomings and to build upon current initiatives to drive forward European forensic cooperation. The recommendations to minimise or eliminate obstacles to forensic cooperation are a key deliverable from the present study.

As identified in the study inception report (January 2008) and the study interim report (June 2008) a further important deliverable of the study is to prioritise the various obstacles identified. On examination of the final gathered evidence, the study team were faced with a decision to either “prioritise the obstacles” or “prioritise the recommendations”. These options are closely related but the latter also takes into account the wider perspective of “overcoming the specific obstacle”. In overcoming the obstacles there are many considerations: the overall impact, the degree of difficulty, the chance of success, the cost etc. The decision taken by the study team was to focus on the prioritisation of the recommendations with particular emphasis on the impact of each recommendation to advance overall forensic cooperation coupled with some consideration of the practical factors that will be involved when implementing that recommendation (can it be achieved effectively?).

The study recommendations have been classified using a scale where three stars (★★★) represent those with the highest priority, whilst those with two stars (★★) and one star (★) have decreasing priorities. Nevertheless, it must be emphasised that every single recommendation (below) is being proposed as having the potential to impact upon overall forensic cooperation. A key lesson from the construction of the forensic cooperation model has been an enhanced awareness of complexity and of the many different places where changes can be made to enhance forensic cooperation. Thus, maximum progress towards overall improved forensic cooperation will best be achieved through the implementation of all the proposed recommendations.

Thus, the study team puts forward these recommendations to the EC for consideration and for subsequent acceptance through consultation with the various stakeholders that will need to be involved in their implementation.

19.3 The Way Ahead

The forensic cooperation model provides an insight into the current mechanisms and processes by which forensic information moves around the forensic and the law enforcement communities. A key observation arising from the forensic cooperation model is the very significant level of complexity. Thus, when asking the question as to how the various obstacles to forensic cooperation might be overcome it is relevant to ask whether this might be achieved by striving towards the development of a completely new European model for the flow of forensic information or by making improvements to the various processes already existing within the current model. From the viewpoint of the sheer complexity of the current processes it soon became clear to the study team that building improvements to the processes within the existing model, whenever possible, provided the most practical and effective way to promote overall forensic cooperation.
Thus, the recommendations arising from the present study are mainly directed towards improvements in specific areas of forensic cooperation as identified from practical experience and considered within the context of the forensic cooperation model. They represent individual areas of work but, in many instances, there are clearly aspects of overlap. Further, the model provides the necessary framework to consider the specific recommendations as a coherent set of potential activities pointing towards long-term benefits in overall forensic cooperation.

The terms of Article II.10 of the EC contract (JLS/D1/2007/025) are explicit with regard to the “use, distribution and publication” of the information arising from the current study. Decisions on these matters are clearly assigned to the EC. Nevertheless, it is clear that the future value of this work, through the implementation of its findings, will depend upon a widespread knowledge and understanding of this final report amongst all parties that deal with forensic information across Europe. Thus, the first recommendation addresses this key point of agreeing with the EC for the final report to be widely available within the forensic community and the law enforcement community through appropriate distribution.

### Recommendation 1

For the study team to work with the EC to agree routes by which this final report can receive widespread circulation amongst the European forensic and law enforcement communities. This recognises that these two communities have a common interest in the flows of forensic information both inside and between countries. The purpose of such dissemination would be to promote knowledge and understanding of forensic cooperation amongst all stakeholders and, thereby, to prepare the ground for further debate and for the implementation of the report recommendations.

Priority = ★★★

Although the widespread availability of the final report to interested parties will be an important first step, more focused activity may be required to facilitate a broad understanding of its contents and the implications for the way ahead. To this end it is recommended that an appropriate ‘sensitisation’ event (workshop, seminar or conference) should form an integral part of the implementation phase. Such an event would provide an opportunity for the study outcomes to be discussed in detail with further opportunities to challenge and re-prioritise the recommendations. It is envisaged that such an event would best achieve its goals with a mix of delegates drawn from both the forensic and the law enforcement communities. Further, it is envisaged that workshop activity, involving groups of delegates, would have a central role at the event allowing for meaningful discussion about the way ahead. In essence such an event could provide the launch-pad for implementation activity across this broad area of forensic cooperation.

### Recommendation 2

For an appropriate sensitisation event (workshop, seminar or conference) to be organised to involve a mix of delegates drawn from both the forensic and the law enforcement communities. The purpose of the event would be to facilitate meaningful detailed discussions about the current study outcomes with further opportunities to challenge and re-prioritise the recommendations. Further, the event could play an important role in planning the way ahead, with discussions relating to the practical aspects of implementing the recommendations. The staging of such an event would probably best sit under the banner of the EC to emphasise the wide engagement of both the forensic and the law enforcement communities.

Priority = ★★★

The following sections of the final report include diverse recommendations to address the various issues identified from the evidence gathered during the study. Many of these recommendations point towards the European forensic community and thereby the implementation of these recommendations will naturally fall with ENFSI or with the individual
forensic institutes. The assignment of a recommendation within the forensic community will often be observed within the wording of the following recommendations.

The complexity of the forensic cooperation model has clearly highlighted the importance of multiple stakeholder engagement to facilitate success when tackling the obstacles to forensic cooperation. Thus, many of the final report recommendations require the engagement of the law enforcement community alongside the forensic community. The identification of appropriate European organisations and agencies within the law enforcement community for the assignment of specific recommendations is not always clear at the present time. Thus, any specific lack of assignment of a recommendation within the law enforcement community indicates that more work will need to be done to find the appropriate points of engagement.

In this respect, it is anticipated that the EC can play a very significant role in helping to identify, engage and motivate the appropriate European organisations and agencies within the law enforcement community to drive forward the recommendations contained within this final report. In fact, the role of the EC is seen to be critical in helping to promote further interactivity between the forensic community and the law enforcement community across Europe. Further, the workshops at the sensitisation event (discussed above) may provide an important forum for the identification of appropriate organisations and agencies to engage in the implementation work.

**Recommendation 3**

To carefully explore with forensic and law-enforcement stakeholders the range of organisations that will need to be involved when implementing each recommendation arising from the current study. The complexity of the forensic cooperation model has clearly highlighted the importance of multiple stakeholder engagement to facilitate success when tackling the obstacles to forensic cooperation. Implementation that involves the European forensic community will undoubtedly point towards ENFSI or the individual forensic institutes. Implementation that involves the law enforcement community is less easily assigned and the support of the EC will be needed to help identify, engage and motivate the appropriate organisations and agencies across Europe.

Priority = ★ ★ ★

### 19.4 Preparedness

The current study has achieved a valuable overview of European forensic preparedness to deal with major incidents (particularly terrorist explosive incidents). The information has been gathered from various sources, but particularly the surveys of the chairs of the ENFSI Expert Working Groups (EWGs) and the directors of the forensic institutes. Many factors are contributing to the large variations in preparedness that have been observed. These range from the perceived local risk to terrorist activity through to the actual experience of dealing with real terrorist incidents. Thus, some institutes are clearly better prepared than others but, nevertheless, effective measures and innovative ideas can be found within many institutes.

A clear step on the road ahead will be to distil the elements of good practice from the current responses and to supplement these by follow up discussions with those laboratories currently showing high levels of preparedness and those that have practical experience of large scale terrorist explosive incidents. In this manner it will be possible to draft a European best practice guide for achieving preparedness to deal with major terrorist explosive incidents.

It may not be practical (nor economically viable) for all European forensic institutes to achieve the same high levels of preparedness. Decisions on investment in this area will most likely to be made on the basis of perceived risk. Nevertheless, a European best practice guide document can be an important starting point for any institute wishing to raise its level of forensic preparedness to tackle potential terrorist events.
Recommendation 4

To initiate a project using a team drawn from the ENFSI institutes to research and prepare a European Best Practice Guide for achieving preparedness to deal with major explosive incidents within a forensic institute/laboratory. The evidence gathered within the present study will provide a foundation for such work but more detailed information will need to be collected from the ENFSI institutes and other organisations outside of ENFSI, in particular from those countries that have already had to face terrorist attacks.

Priority = ★ ★ ★

The forensic preparedness of any individual forensic laboratory/institute is clearly an important first step in tackling the risk of terrorist activity or other major incidents. Nevertheless, there are always likely to be situations (by virtue of scale, perhaps) when a major incident overwhelms the local capability of a laboratory/institute to deliver forensic services. These are circumstances when the practical support of another institute (within one’s own country or in a different country) might be sought to help deliver the high volume of current casework. Such support might be provided by the loan of forensic practitioners or by taking on casework on behalf of the other institute.

The setting up of such supporting arrangements at the time of the emergency is fraught with difficulties, as there will be large numbers of practical arrangements be to put into place at very short notice. These can include methods for the secure transport of exhibits, the availability of specific technical capabilities, the acceptability of results to local courts, an understanding of the processes needed for a different legal system, the potential costs for delivering services, the likely timescales for delivering the work, the lines of communication that will be used during the emergency, etc.

There will always be details that need to be resolved at the time of the emergency but many of the general practical arrangements can be resolved in advance through detailed discussions between the forensic institutes. Such understanding arising from the discussions can be documented and serve as a general framework for future work facilitating rapid implementation to meet a specific emergency.

Recommendation 5

For ENFSI to encourage the drafting of formal agreements between ENFSI institutes (and other forensic organisations) to facilitate the rapid initiation of forensic support between those institutes at a time of great need (e.g. immediately after a major incident). Such outline agreements negotiated in advance will provide the important framework on which specific forensic services can be implemented and delivered quickly to meet a specific emergency.

Priority = ★ ★ ★

The current study has concentrated on European preparedness to deal with major terrorist explosive incidents, from forensic recovery at the scene through to the forensic laboratory. The preparedness to handle other types of crime incidents has also been considered but to a lesser degree. There is a widely held view that the development of approaches for dealing with other types of CBRNE incident from a forensic perspective remains at a very early stage. Thus, there is an urgent need to pull together examples of good practice in terms of forensic preparedness for dealing with wider scale CBRN terrorist incidents. Building up knowledge in this area will strongly influence the ability of European countries to be prepared to respond effectively to the full scope of potential terrorist incidents.
Recommendation 6

To initiate a project using a team drawn from appropriate European institutes to investigate the current best practice (including forensic recovery) for dealing with wider scope CBRN incidents from a forensic perspective. The work will need to look at all aspects of this activity from the incident scene to the laboratory and will require significant collaboration with those other organisations that have responsibilities in CBRN emergency situations e.g. those organisations charged with the duty of cleaning up after such incidents.

Priority = ★

19.5 Fitness for Purpose & Oversight

The work in developing the forensic cooperation model has provided valuable insights into the numerous factors and agencies (National and International Oversight) that influence the way that forensic institutes achieve fitness for purpose in delivering their forensic services (see Figures 2 and 3 and the associated discussions). The achievement of fitness for purpose through the application of different quality standards to organisations, procedures, people and methods was discussed in the chapter of this report entitled, “Quality Standards in Forensic Science” (Chapter 14).

Further, the results from the study have clearly highlighted that there are enormous differences in the types of external oversight that operate in different European countries. Thus, all European forensic institutes may be aspiring for accreditation to the same international ISO standard but, beyond that, there are many other oversight factors where very different national approaches are in operation at the present time. This latter complexity, in its own right, tends to act as a general obstacle to forensic cooperation in many different areas. For example, there are many diverse mechanisms across Europe (involving many different external bodies) by which forensic experts are considered to be acceptable to the local courts. Another example is the significant involvement of customers/stakeholders (the police and the government) in influencing forensic science standards in the UK, in comparison to other European countries.

There has not been time in the present study to conduct a detailed survey of all European forensic institutes in order to understand the many different external oversight factors and agencies (National and International) that are currently influencing their approaches for achieving fitness for purpose in the delivery of their forensic services. Access to such information would be extremely valuable to provide a framework for potential harmonisation of the various factors wherever possible. Thus, the initiation of such a survey is recommended.

Recommendation 7

To conduct a detailed survey of all European forensic institutes to help understand the many different external oversight factors and agencies (national and international) that are currently influencing their approaches for achieving ‘fitness for purpose’ in the delivery of their forensic services.

Priority = ★ ★

The application of common International quality standards across European forensic institutes is clearly the key foundation for long-term forensic cooperation. This is already a clearly stated aim of the ENFSI organisation. The International standard for laboratory accreditation (ISO17025) is currently seen as the central pivot for such aspirations. Further, the ISO17020 standard is the focus for crime scene investigation and the EA/ENFSI guidelines document for this has just been published (December 2008). ISO17025 is a broad standard applicable to many different types of laboratory and some aspects can be subject to various interpretations. It is well recognised that there have been variations in the application of ISO17025 to forensic
laboratories in different countries as a result of local accreditation bodies implementing the standard in very different ways.

The recent engagement of ENFSI with EA and ILAC (networks of accreditation bodies, see Section 14.4 of this final report) is a very important step in seeking harmonisation for the way ISO17025 is being applied to forensic laboratories across Europe. The current partnership work between ENFSI, EA and ILAC to provide a common guidance document for both ISO17020 and ISO17025 to cover the whole forensic process, involving both crime scenes and work in the forensic laboratory, is essential for the future success of forensic cooperation across Europe. The study team recommends that ENFSI continues to strengthen its relationship with EA and ILAC and gives the highest priority to the project that will produce the new guidance document.

**Recommendation 8**

For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to continue to strengthen its relationship with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC). Further, the ENFSI Board should ensure that resources are made available to the QCC such that the highest priority can be given to working with EA and ILAC in the development of the new common guidance document for both ISO17020 and ISO17025, to cover the whole forensic process, involving both crime scenes and work in the forensic laboratory.

Priority = ★★★

### 19.6 Communication Between European Forensic Institutes

When gathering evidence for the study, comments relating to the communication between ENFSI institutes were regularly encountered. It became apparent that some forensic practitioners/forensic experts had little direct contact with their counterparts in other forensic institutes unless they were members of Expert Working Groups (EWGs) or other such committees within ENFSI. Even in these situations meetings of such groups may only occur yearly. Not surprisingly, the major communication between ENFSI institutes may only occur between directors.

Thus, for many European forensic scientists there was seen to be great merit in exploring the opportunities for direct communication at the forensic practitioner/forensic expert level and thereby having the opportunity to call upon a wider pool of knowledge and expertise than available within their own institute. A further positive benefit from this approach would be a perceived increasing relevance of ENFSI to the everyday activity of operational forensic casework. Clearly, such approaches would require a significant change in communication policy by the ENFSI directors as well as the set up of practical mechanisms by which such communication could take place.

Again, the evidence suggested that there was limited knowledge on how contact might be made with another ENFSI institute (other than the well understood direct communication between directors). The asking of a technical question or seeking technical advice was perceived as being inappropriate to route through ENFSI directors.

ENFSI has a good website and it may be that this can form the platform for future developments in communication. Further, the ENFSI website for Methods and Technology for Crime Scene Investigation, provided through the internet and hosted by Europol demonstrates a different route for direct, secure and instant communication across the European forensic community.
Recommendation 9
For all ENFSI institutes to set up a telephone/email point-of-contact to act as a starting place for regular communication between institutes. Such a route would provide an additional line of communication other than the direct communication routes that already exist between the institute directors.

Priority = ★★

Recommendation 10
For ENFSI to explore new approaches and policies for communication between forensic institutes encouraging more direct communication between institute staff at all levels. In particular, to explore routes by which forensic experts can readily engage with each other and thereby call upon a wider pool of knowledge and expertise than available within their own institutes. Such new routes of communication might involve the further exploitation of the ENFSI website with the application of newer software communication tools, to facilitate discussion forums or other communication platforms.

Priority = ★★

At the present time the ENFSI website provides the major means of electronic communication between the ENFSI members. Several respondents reported concerns that the current ENFSI website provides no secure mechanism for the exchange of sensitive information as might be needed for joint casework related activity.

Recommendation 11
For ENFSI to examine the current methods of electronic communication between forensic institutes and consider ways by which the security of such communication can be improved for the transfer of sensitive information when necessary (e.g. handling casework information). Consideration should also be given to the compatibility of such secure institute-to-institute communications with sensitive information transfers to the law enforcement community (e.g. police forces).

Priority = ★★

19.7 Quality, Standardisation and Harmonisation

One key aim of the ENFSI organisation is stated as:

“to encourage all ENFSI laboratories to comply with best practice and international standards for quality and competence assurance”.

This area of activity remains the very foundation for the wider attempts to build international forensic cooperation. Without common standards of quality and competence, obstacles to forensic cooperation will always be encountered. The importance of international quality standards to the exchange of forensic data was specifically emphasised in the recent EC Council Decision 2008/616/JHA “on the implementation of Decision 2008/615/JHA on the stepping up of cross-border cooperation, particularly in combating terrorism and cross-border crime”. Council Decision 2008/616/JHA lays down the necessary administrative and technical provisions regarding the automated exchange of DNA data, fingerprint data and vehicle registration data. With reference to DNA data, Article 7(4) indicates that:
“Member States shall take the necessary measures to guarantee the integrity of the DNA profiles made available or sent for comparison to the other Member States and to ensure that these measures comply with international standards such as ISO17025.”

Thus, the current study includes a series of recommendations on quality, standardisation and harmonisation that build upon the work already underway in this area.

Not surprisingly, the ENFSI organisation is central to the implementation of these ‘forensic quality’ recommendations. Nevertheless, there remains much to be done in order to achieve common European quality standards in forensic science and the lack of resources remains a significant issue regularly emphasised by the respondents of the study surveys. Thus, with this in mind, some recommendations highlight the need to seek external financial support to help implement the practical steps that will provide the incremental progress to achieve high forensic quality standards throughout Europe. Without such external funding the progress towards uniform high quality standards across Europe may prove to be slow.

Clearly, a long-term aim of the European Commission (EC) is to support international police and judicial cross-border cooperation. For this reason the EC has a key interest in the international sharing of forensic information and the influence of quality. Thus, the EC is likely to be a significant source for political and financial support in this area.

**Recommendation 12**

For the ENFSI Board to strongly encourage all ENFSI institutes to move rapidly towards achieving quality accreditation to the international ISO17025 standard in line with the membership criteria contained within the ENFSI “Framework for Membership” (ENFSI BRD-FWK-001).

Priority = ★★★

**Recommendation 13**

For the ENFSI Board to support & strengthen the current work of the ENFSI Quality & Competence Committee (QCC) in all aspects of its work to design and implement quality standards. In particular, for the QCC to be encouraged to continue its work on the development of detailed quality standards in those areas not adequately covered by the ISO standards (competence assessment, method validation etc.). Further, that the ENFSI Board makes available adequate resources to ensure speedy progress in this important area.

Priority = ★★★

One important tool currently being applied by ENFSI to move towards the goal of achieving quality accreditation for all its members to the international ISO17025 standard is the EMFA project (European Mentorship for Forensic Accreditation, also known as “The Flying Mentors” project) as outlined in Section 14.9. However, ENFSI needs all possible support to maintain this project activity and to encourage its member institutes to participate. The long-term success of the project relies upon access to funds to cover the travel costs for mentors and the other costs arising from the implementation of quality systems and the drafting of quality documentation in the recipient countries. External financial support from the EC could ease the strain on ENFSI in this respect and enable more members to actively participate in the project.

A further important tool applied within ENFSI for establishing, maintaining and driving up quality standards in European forensic science is the participation of member institutes in inter-laboratory quality assurance exercises and similar such approaches to gathering objective quality performance information. The performance information achieved in such exercises can be used to identify problems and to recognise best practice through which changes can be made to help drive up standards. Thus, such exercises can provide ready
information on the strengths and weaknesses of different laboratories whilst the associated local laboratory records can even identify the work of individual forensic practitioners.

The effectiveness of such inter-laboratory quality assurance exercises is well understood but their implementation relies upon access to appropriate resources (the manpower and the funds to cover the significant costs in setting up exercises). Again, external financial support from the EC could help ENFSI to meet these inherent costs and thereby drive up quality standards more quickly.

**Recommendation 14**

To achieve wide recognition that the ENFSI EMFA Project (European Mentorship for Forensic Accreditation) and the ENFSI inter-laboratory exercises are two important tools for establishing, maintaining and driving up quality standards in European forensic science. Through this recognition to secure improved resourcing for these activities from the EC and thereby to ensure well-managed and well-directed programmes of work for the future. In this way widespread European quality accreditation to international standards can be achieved more quickly and furthermore those standards can be maintained and enhanced over time.

Priority = ★★★

A major issue for ENFSI remains the organisation and the management of the wide-ranging work activity to drive forward quality and competence improvements across the European institutes. Undoubtedly, the ENFSI QCC standing committee will play a central role in coordinating this area of activity. Nevertheless, a key remaining issue is the mobilisation of sufficient manpower resources from the forensic institutes to take on this challenging work. The study team concluded that the ENFSI Expert Working Groups (EWGs) remain the best focus for this work, but the EWG activity needs clear governance (objectives, roles, responsibilities) from the ENFSI Board and, of equal importance, the full support of all ENFSI directors who provide the staff to resource the EWGs.

As an example, the ongoing work of the ENFSI EWGs will undoubtedly entail the further use of inter-laboratory quality assurance exercises (as discussed above). The manpower resource required for such exercises is very high (the logistics for each exercise, the preparation of the items for examination, the thorough evaluation of the results, the costs of developing new exercises etc.). This is just one of many areas that engage the members of the EWGs.

Thus, effective participation on an ENSI EWG requires a significant investment in time. Hence, the overall manpower resource across the ENFSI institutes engaged within the EWGs should not be underestimated. Further, increasing direction from the ENFSI Board and the QCC is likely to impose further upon the EWG resources. Clearly, this requires the full support of the ENFSI directors. With this in mind the ENFSI Board may need to seek external funding to help facilitate the release of such manpower resource from individual ENFSI institutes.

**Recommendation 15**

For the ENFSI Board to reiterate the importance of the ENFSI Expert Working Groups (EWGs) as the key foundation for the identification of best practice, the setting of common standards and for promoting method harmonisation for their own forensic disciplines across all ENFSI institutes. Such strengthening of the EWG role will require clear governance (objectives, roles, responsibilities) from the ENFSI Board and the full commitment of all the EWGs to align with the ENFSI objectives. Equally important, the strengthening of the EWG role will require the full support of all ENFSI directors who provide the staff to resource the EWGs. The manpower resource required to achieve effective progress in this area should not be underestimated and the ENFSI Board may need to achieve significant external funding to help facilitate the release of such manpower resource from individual ENFSI institutes.

Priority = ★★★
The positive aspects of inter-laboratory exercises in establishing, maintaining and driving up quality standards in forensic science have been discussed above. Nevertheless, such exercises can also pose potential difficulties. Weak performances in quality assurance trials can be used in courtroom/tribunal situations to cast doubt on the forensic results in current cases. Inevitably, this leads to there being a significant reluctance to publish the results of inter-laboratory exercises but this is no complete safeguard as local courtroom procedures or legislation can compel the release of such information for the use of the court. Thus, this general factor can lead to a reluctance of forensic laboratories to participate in inter-laboratory exercises, particularly in areas where a weak performance is anticipated.

Thus overall, this factor has a negative influence on the use of inter-laboratory exercises as an effective tool for identifying and dealing with areas of quality weakness. There is very unlikely to be a straightforward solution of this problem. Some countries have been exploring this area for many years and thus have more experience to share with others. Nevertheless, it is a significant obstacle to raising quality standards across Europe and should be taken forward. The starting point has got to be to find ways to open up a constructive dialogue with the European legal community.

**Recommendation 16**

For ENFSI and the European Commission (EC) to seek constructive dialogue with the legal community to jointly explore ways to safeguard the continued collection of forensic quality data (e.g. the results of inter-laboratory exercises) recognising that such information can be used in negative ways during trials and tribunals.

Priority = ★★

One specific important area where common international standards have not yet been achieved is the forensic interpretation of scientific findings (see Section 14.7 within this final report). This broad process lies at the very heart of all forensic work as was demonstrated within the international *forensic cooperation model*. Clearly, the details of forensic interpretation relate to the specific scientific disciplines involved but there are underlying principles that can be applied across broad areas. ENFSI has recently engaged with an initiative from the UK involving a general standard for the formulation of evaluative expert opinion (i.e. the provision of a standardised opinion of evidential ‘weight/strength’). The central importance of this general area highlights the need for urgent work to be undertaken to finalise some European / International standards.

**Recommendation 17**

For the ENFSI Board to encourage the ENFSI Quality & Competence Committee (QCC) to work with European Accreditation (EA) and International Laboratory Accreditation Cooperation (ILAC) to develop and implement common European/International standards for forensic interpretation.

Priority = ★★★★

### 19.8 Physical Forensic Collections and Forensic Databases

In recent years there has been much emphasis placed on the power of DNA and fingerprint (FP) information as cornerstones of forensic science. The value of such forensic information is well recognised with the associated national databases providing potential direct links between named individuals and recovered traces. To facilitate such exchanges of forensic information between countries large strides have already been made in the standardisation of methods and the recording of the associated information into databases having a common format. Recent efforts have centred on making national data available to other countries and providing appropriate processes and mechanisms for accessing that information.
Considerable progress is already being made in the sharing of European DNA and FP information (see Sections 13.1 and 13.2 within this final study report) the current study makes no specific recommendations in these areas. As the new systems for DNA and FP sharing are tested over the coming years through operational use it will, undoubtedly, be necessary to re-examine this area to seek future improvements.

The forensic interpretation of laboratory findings can often rely heavily on the use of forensic databases and physical forensic collections. In some instances such databases might link recovered forensic materials to named individuals (as often is the case with DNA & FP) but in other instances the databases might provide links between crime scenes at a stage when no named individuals have been identified. Such ideas have been built into the international forensic cooperation model.

Clearly, DNA and FP databases are very important but individual European forensic institutes have other collections of forensic information (physical collections and databases). In the course of the study it became clear that European forensic institutes are generally unfamiliar with what different information collections are held in other institutes. Further, there is no comprehensive and up to date survey of such forensic information sources. Without such knowledge it is unclear to what extent such databases and physical collections might have value across international borders.

Thus, the current study recommendations include a survey of the forensic databases and physical forensic collections held by individual ENFSI institutes and a follow-up assessment of their potential usefulness across international borders. In those instances when international sharing has potential benefits, further work will be needed to define and implement common standards for the information held. Furthermore, there will need to be agreement on the processes by which the information will be shared.

Recommendation 18
For ENFSI to prepare a central list of forensic databases and physical forensic collections that are currently held by individual ENFSI Institutes with a view to the potential future sharing of such forensic information. Further, to consider the adequacy of such existing databases and to identify those databases with potential for further development.

Priority = ★★

Recommendation 19
For ENFSI to work towards harmonising and adopting common standards for the exchange of forensic information (databases etc.) for those areas where such standards have not yet been developed and where there are significant benefits for sharing such data across international borders.

Priority = ★★★

19.9 Language Issues

The surveys conducted as part of the current study have regularly emphasised the obstacles to forensic cooperation arising from language differences.

The ENFSI Multilingua tool appears to be underused at the present time partially arising from many forensic practitioners being unaware of its existence or of its practical uses. Thus, work is needed to encourage the wider use of this useful tool and thereby provide the motivation to further invest in its development (more languages / more areas of expertise, e.g. explosives).
In addition, commercial software translation tools have markedly grown in speed and accuracy over recent years. The time appears to be right to explore the capabilities of such general translation tools (in combination with the Multilingua vocabulary) to help facilitate the translation of forensic text.

The survey results highlighted the most serious language problems to have arisen in courtroom situations where language translators (unfamiliar with the technical vocabulary of forensic science) may have misled trials through inadequate translation. Clearly, courtroom language translators must be competent in both judicial and technical matters when dealing with forensic evidence. It is recommended that a European list/register of competent individuals should be set up and maintained to meet this need.

Recommendation 20
To raise the awareness amongst European forensic practitioners of the ENFSI Multilingua project and thereby encourage wider use of the tool and its further development to include more languages and more areas of forensic expertise.

Priority = ★

Recommendation 21
To investigate the potential application of ever improving modern software translation tools in the area of technical translation and thereby explore their application in the field of forensic science.

Priority = ★

Recommendation 22
To set up a mechanism for the creation and regular maintenance of a European list/register of technically and judicially competent language translators available to support courts and tribunals when reviewing forensic information (written or verbal) presented in a foreign language. The ownership and access point to such a list/register will be an important element of this work, as will be the measures of competence for inclusion on the list.

Priority = ★

A further recommendation with a potential impact on language issues is contained in the following section (Secondments and Exchanges for ENFSI Staff).

19.10 Secondments and Exchanges for ENFSI Staff

Secondments and exchanges of staff already take place between ENFSI institutes through bilateral arrangements. They are usually technical in nature and allow the individual to gain knowledge and expertise in a particular field or to learn how another forensic science provider operates. Both the visitor and the hosting institute can gain knowledge and understanding through the engagement at the forensic institute site. Such secondments and exchanges are usually aimed at more junior members of staff but they can also be part of an induction process or a development opportunity for more senior staff. They can range from one week to 6 months in duration (say) and, to be most effective, they need careful planning in terms of activities and outcomes.

Thus, secondments and exchanges can build relationships, forge links between institutes, facilitate the exchange of information and encourage the sharing of good practice. Furthermore, in line with the aspirations discussed in the previous section (language issues),
secondments and exchanges can also provide an ideal opportunity for languages to be practiced in a forensic environment. Through the stimulation of such experiences, the value of developing language skills can be fully appreciated and European forensic scientists can be encouraged to continually improve their language skills.

Support from ENFSI to encourage and support an increasing number of secondments and exchanges would have significant long-term benefits for international forensic cooperation.

**Recommendation 23**

For the ENFSI Board to encourage and support forensic practitioners to take part in secondments and exchanges involving ENFSI institutes. Such experiences are seen as valuable ways to build relationships, forge links between institutes, facilitate the exchange of information and encourage the sharing of good practice. They also provide good opportunities for forensic scientists to practice and improve their language skills. Overall secondments and exchanges can make effective contributions towards many of the key factors that will influence long-term European forensic cooperation.

Priority = ★ ★

**19.11 Working with Legal Systems in Other Countries**

Another problem area for forensic cooperation regularly highlighted within the survey results from the forensic community was the difficulties posed by different legislations. Interestingly these comments within the survey results were rarely accompanied by concrete examples of legal obstacles experienced in practice. This was further reinforced in the survey results from the law enforcement community where it was regularly stated that there are few legal barriers to forensic cooperation. Thus, there is work that needs to be done with the forensic community to dispel the myth that legal factors will inevitably get in the way of forensic cooperation.

Forensic practitioners also expressed concerns relating to their lack of knowledge and understanding of legal systems and legal procedures in different countries. This worry was particularly acute with reference to the protocols and procedures that operate in courtroom situations when an expert might be faced with presenting oral evidence. It should be possible to overcome these understandable concerns by the inclusion of relevant sections on the ENFSI website. Such areas might not be comprehensive but would provide forensic practitioners with basic background information.

**Recommendation 24**

To raise awareness across the forensic community that the legal barriers to forensic cooperation are far less problematic than generally perceived.

Priority = ★ ★

**Recommendation 25**

To create an area on the ENFSI website that provides general guidance on the Investigative processes and tribunal procedures that pertain to each European country. Such guidance would provide an initial introduction for any forensic expert required to engage with a different country. Procedural guidance for courtroom appearances would be an important part of this information.

Priority = ★ ★
19.12 Interactions (The Forensic and the Law Enforcement Communities)

The development of the international forensic cooperation model has emphasised the complexity by which forensic information moves between the forensic community and the law enforcement community. The model highlights the mutual dependence of the two communities with reference to forensic matters.

Although both communities work with each other on a day-to-day basis on operational matters, there are few opportunities when both communities can come together to discuss forensic science from a strategic perspective. The various survey responses suggest that there are few individuals (from either community) who fully understand the reality of the forensic information flows that are represented within the model. Inevitably, this leads to misunderstandings about the roles played by different organisations and restricts the opportunities by which both communities can work together to promote the better use of forensic science for the investigation of crime and the prosecution of criminals.

Future advances in European forensic cooperation will best be served by the forensic community and the law enforcement community creating new joint forums by which forensic matters can be regularly discussed from a strategic perspective. The forensic cooperation model could provide the common platform for building a common awareness and understanding. Clearly, further work will be required to identify the exact nature of such forums and the organisations that might be involved.

One desirable objective might be to build opportunities for the two communities to participate side-by-side in joint training programmes relating to the application of forensic science within the criminal justice system. The curriculum could be centred on the forensic cooperation model and the training elements would provide a detailed account of the numerous processes involved in the movement of forensic information. One important element would be the processes by which forensic information is shared across international borders (a matter of great interest to both communities).

As indicated above, current opportunities for dialogue between the two communities at a strategic level are relatively rare. One of the current study team members (Richard Gill) attended a CEPOL Training Seminar in Budapest in October 2008 dealing with the application of forensic science to police investigations. The event was mainly attended by police investigators with the presentations being mainly delivered from the forensic community. This is an annual forensic CEPOL event that is regularly supported by ENFSI. Thus, this event does facilitate interaction between the two communities on forensic matters and does raise the awareness of police officers to various forensic topics. Nevertheless, the forensic topics within the seminar change each year (there is no common curriculum) and the numbers of people involved are relatively small. Thus, this annual CEPOL Seminar is different from the idea presented above for the development of a long-term forensic training programme with a defined curriculum for delivery to both communities.

Recommendation 26

For the European Commission (EC) to seek opportunities to create new forums by which the law enforcement community and the forensic community can engage together in regular and ongoing discussions about the better use of forensic science for the investigation of crime and the prosecution of criminals The current lack of such a common forum at the present time leads to many misunderstandings on both sides. The engagement of both communities in such strategic discussions about forensic science would have enormous benefits for all. The forensic cooperation model would provide a common platform for building a common awareness and understanding.

Priority = ★ ★ ★
Recommendation 27
For the European Commission (EC) to support ENFSI in exploring opportunities for developing a long-term forensic training programme with a defined curriculum for delivery to both the law enforcement community and the forensic community. The curriculum could be centred on the forensic cooperation model and the training elements would provide a detailed account of the numerous processes involved in the movement of forensic information.

Priority = ★★★

The survey results have clearly highlighted one specific situation where further dialogue between the forensic community and the law enforcement community would be highly desirable. In general, there is relatively poor engagement of the forensic community in national planning discussions when preparing for major crisis incidents (e.g. a terrorist bomb attack). Further, it was reported that invitations for forensic institutes to participate in national exercises designed to simulate emergency events were relatively rare. This situation suggests a lack of understanding by the law enforcement community of the potential impact that arises from a major incident for those organisations delivering forensic services.

Recommendation 28
To strengthen the engagement of the forensic community with the national organisations (police, military, civil authorities etc.) that plan for major crisis incidents (e.g. a terrorist bomb attack). Through this engagement to promote further understanding of the potential impact of such an incident on forensic services (from the incident scene to the laboratory). Further, such engagement to promote the further participation of the forensic community in the national planning discussions and the practical participation of forensic institutes in national exercises designed to simulate emergency events.

Priority = ★★★

19.13 Interactions (Within the Law Enforcement Community)

The National Correspondents for Terrorist Matters (NCT) appointed by the EU Member States in accordance with Council Decision 2005/671/JAI play a very important role in providing specified key information to Eurojust relating to judicial and prosecution activity (see Section 12.3). Further, Member States are required “to ensure that any relevant information included in documents, files, information, objects or other forms of evidence seized in criminal investigations or criminal proceedings in connection with terrorist offences can be made accessible to the authorities of other interested Member States as soon as possible”.

Thus, if a Member State has received forensic information in the course of a criminal investigation or prosecution in connection with terrorist offences and that Member State considers the forensic information to be “relevant information”, then it is under an obligation to make that information accessible to the authorities of other interested Member States as soon as possible. However, the Member State may not be in a good position to assess:

- whether any other Member States are interested (and if so, which),
- whether the forensic material is relevant to other Member States (and if so, which),
- how to make the forensic material accessible to other Member States.

Thus, there is a real possibility that forensic information available at the judicial/prosecution level is not being shared effectively. Nevertheless, it is not clear at this point whether there are significant quantities of such forensic information that would be of Europe-wide relevance.
One possible future mechanism for sharing such forensic information would be to use the existing channels to Eurojust to collect together all this forensic information. Member States would forward to Eurojust all forensic information which has been provided or seized in the course of terrorism-related investigations and prosecutions.

Nevertheless, there are many issues that need to be considered before such a process can be implemented. Firstly, the quantity and the underlying value of this forensic information would need to be assessed. Further, if the sharing of such information was identified as having a significant value to the Member States, it would be important to develop an effective mechanism for the Member States to access that information within the Eurojust collection. It is also important to understand that data protection issues would also need to be considered and resolved.

Thus, the following recommendation points towards the consideration of these ideas, as part of a future study.

**Recommendation 29**

As part of a future study, further consideration should be given to whether forensic information in terrorism-related investigations and prosecutions should be forwarded to Eurojust as a matter of course (alongside other information required by Council Decision 2005/671/JAI). If so, further work is required to establish the role of Eurojust when it receives such information in order to make it widely available to the Member States. Further, associated data protection issues would also need to be considered and resolved.

Priority = ★

Within Europe there are several existing channels of communication that can be used by the law enforcement community for the exchange of detailed information (including forensic information as appropriate). These communication channels include:

- Sirene bureaus (the national gateways to the Schengen Information System, SIS)
- Europol National Units (ENUs) and Europol Liaison Officers (ELOs)
- Interpol National Central Bureaus (NCBs)
- Bilateral cooperation channels

In general, a Member State can request information from another Member State via any existing channel and, generally the reply would return through the same channel. Many factors can influence the selection of channel including the subject, the requested country, the level of security/confidentiality required and the urgency.

In some countries the access points to the various communication channels are co-located within a single central international liaison bureau. In other countries the access points to the different channels may be located at different geographical locations.

During the course of the present study, when gathering evidence on forensic cooperation from the law enforcement community, responses were obtained that emphasised the real advantages that arise through the national co-location of the access points to the various communication channels. The study team recognises that the exchange of forensic information represents a very small proportion of the general information exchange that takes place through these communication channels. Thus, the study team feels that this matter (the individual national arrangements for organising access to the different law-enforcement communication channels) is beyond the scope of the current study. Nevertheless, these comments were felt to be of significance and therefore this matter has been included within the recommendations as an alert to the EC.
Recommendation 30
To alert the EC to the comments received from the law enforcement community highlighting the real benefits for general information sharing that might be achieved through the more widespread national co-location of the access points for the various existing communication channels used for international law-enforcement cooperation (Europol, Interpol, Schengen / Sirene etc.).

Priority = ★

19.14 The Role of ENFSI

ENFSI is the network organisation that links together forensic science laboratories across Europe. Thus, it represents the key platform for cooperation and information exchange between these European forensic institutes. ENFSI has a Constitution (BRD-GEN-002), a Strategic Plan 2008 – 2011, and a Board Action Plan 2008 – 2009. These governance documents contain many references to cooperation initiatives, e.g. the organisation of meetings, workshops & seminars, the management of Expert Working Groups (EWGs), the development and maintenance of a website as a source of communication and the liaison with other forensic network organisations. Furthermore, the exchange of information is mentioned as a specific aim within the “Framework for Expert Working Groups” (BRD-FWK-003). Thereby, all ENFSI EWGs mention the exchange of information explicitly within their Terms of Reference.

Nevertheless, after reviewing the official governance documents, ENFSI does not explicitly mention “international cooperation between member institutes” and “the exchange of information” within its Mission Statements. In general, the current ENFSI Mission Statements are focussed on Quality & Competence, on Research & Development, on Education & Training and on Science. These aims rely heavily on good international cooperation and effective information exchange but these underlying factors are not specifically highlighted in the ENFSI Mission Statements.

Taking into account these general observations it seems most appropriate that the ENFSI Board should consider the inclusion of explicit aims within the Mission Statements that refer to international cooperation between member institutes and the exchange of information.

Recommendation 31
For the ENFSI Board to consider the inclusion of explicit aims within the ENFSI Mission Statements that refer to cooperation between member institutes and the exchange of information. The purpose of this change would be to emphasise the importance of forensic cooperation at the centre of the ENFSI strategy.

Priority = ★ ★ ★

A key objective of ENFSI is to “enhance innovation in forensic science by research and development (R&D) to improve service delivery to our customers.” The European Academy of Forensic Science, EAFS (an ENFSI Standing Committee) is the focus for the implementation of the ENFSI R&D strategy – a European academy aimed at developing, improving and transferring knowledge in all areas of forensic practice. The main aims of EAFS are to:

- provide leadership and focus on R&D matters for ENFSI
- improve knowledge transfer between stakeholder groups (scientists, police, lawyers, practitioners and researchers)
- improve funding for ENFSI R&D
Several survey respondents highlighted the need for a more coordinated approach to forensic R&D across Europe through a strengthening lead from ENFSI and further active work from ENFSI to seek external funding for larger scale, long-term R&D areas. The promotion of inter-laboratory R&D collaboration was considered to be an important element. Others highlighted the importance of finding effective ways to manage the issues that arise from ethics, commercial interests and intellectual property rights when engaging in collaborative work. Overall, the current review of the ENFSI R&D strategy is seen as an important step towards the enhanced development of forensic science in Europe.

**Recommendation 32**

For the ENFSI Board to support & strengthen the current work of the European Academy of Forensic Science, EAFS (an ENFSI Standing Committee) in its work to draft an updated ENFSI Research & Development (R&D) Strategy. This updated strategy should aim to promote opportunities for European forensic institutes to work together and to overcome the practical difficulties associated with such collaborative work. Further, ENFSI should continue to actively seek all opportunities for external funding to facilitate larger scale, long-term R&D areas.

Priority = ★ ★

**19.15 Miscellaneous**

All areas of analytical chemistry require access to authentic substances for direct comparison with unknown substances and recovered traces. Analytical chemistry plays an important role in much forensic laboratory work and therefore the ready availability of authentic samples is critical to such activity. The survey results highlighted a significant obstacle in the access to such authentic samples in certain forensic disciplines where the substances are classified as hazardous (e.g. explosives). For good reasons, the regulations for the physical movement of such materials are very demanding and require time-consuming administration. This can cause very long delays when moving substances between different countries.

Another situation when hazardous substances need to be moved between countries is the distribution of forensic quality assurance exercises whereby all institutes can test their methods against samples of known origin and composition. Once again, the regulations for moving hazardous substances can severely hinder the transport of such samples.

Often, the quantities of hazardous substances being transported for forensic purposes are very small (sometimes only traces) and thereby the risks involved are proportionately low. Thus, there would be much to be gained for the EC to explore the potential for relaxing the regulations (European & International) relating to the transfer/transport of hazardous substances from one country to another, in situations when such movements involve only minute quantities required for scientific/analytical purposes.

**Recommendation 33**

For the EC to explore potential relaxations in the regulations (European & international) relating to the transfer/transport of hazardous substances (e.g. explosives, chemical agents), from one country to another, in situations when such movements involve only minute quantities required for scientific/analytical purposes. The current legislation imposes severe administrative burdens, well out of proportion to the risks involved and thereby creates a practical obstacle for the sharing of common chemical standards and the distribution of samples for quality assurance trials.

Priority = ★ ★
19.16 Further Testing of the Current Study Outcomes

The current EC study has taken place over a relatively short period of time (one year) whilst it has attempted to cover a very wide scope in looking at all aspects of forensic cooperation involving both the forensic community and the law enforcement community. Consultation work has been conducted with a wide range of individuals and organisations to check the validity of the forensic cooperation model and the validity of the recommendations that are being proposed as part of this final study report. Nevertheless, the specific short time frame of the study has provided a natural limit to the work that could be delivered and thereby the study team strongly believes that further consultation with stakeholder groups should form an important step on the road ahead. The following proposals will further ensure that the forensic cooperation model and the other recommendations within the report provide a valid foundation for further development whilst also providing opportunities for understanding yet further obstacles to cooperation.

Recommendation 34
To undertake further consultation with the organisations that already play important roles in the facilitation of forensic cooperation throughout Europe (Europol, Interpol, Eurojust, ENFSI, European Commission) to further test the validity of the forensic cooperation model and the recommendations that arise from the current study.

Priority = ★ ★

Recommendation 35
To undertake further consultation with organisations outside of Europe that are key stakeholders in promoting forensic cooperation throughout the world to help further test the validity of the forensic cooperation model and the recommendations that arise from the current study. Such organisations to include the regional networks of forensic science laboratories (ASCLD, SMANZFL, AICEF).

Priority = ★

Recommendation 36
Through further consultation with stakeholders from both the forensic community and the law enforcement community to explore ways in which the forensic cooperation model can be improved and adapted, and thereby used as the basis for further understanding the processes by which forensic knowledge and information is shared. Through this developing understanding, provided with the aid of the model, to further understand the obstacles to such cooperation and thereby seek long-term solutions.

Priority = ★ ★ ★
### 20 Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAFS</td>
<td>American Academy of Forensic Sciences</td>
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<tr>
<td>ACPF</td>
<td>Atlas Collaboration Platform (Europol)</td>
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<td>AFIS</td>
<td>Automated Fingerprint Identification System</td>
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<tr>
<td>AFSN</td>
<td>Asian Forensic Sciences Network</td>
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<tr>
<td>AFSP</td>
<td>Association of Forensic Science Providers (a professional organisation of forensic service providers within the UK)</td>
</tr>
<tr>
<td>AICEF</td>
<td>Academia Iberoamericana de Criminalística y Estudios Forenses (a regional forensic science network)</td>
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<tr>
<td>ASCLD</td>
<td>The American Society of Crime Laboratory Directors</td>
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<tr>
<td>AWF</td>
<td>Analysis Work File (Europol)</td>
</tr>
<tr>
<td>BIPM</td>
<td>The International Bureau of Weights and Measures</td>
</tr>
<tr>
<td>BOMCA</td>
<td>EU’s Border Management Programme in Central Asia</td>
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<tr>
<td>CADAP</td>
<td>EU’s Central Asia Drug Action Programme</td>
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<tr>
<td>CAP</td>
<td>Competence Assurance Project (an ENFSI QCC Project)</td>
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<tr>
<td>CBCC</td>
<td>Cross-Border Crime Check</td>
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<tr>
<td>CBRN</td>
<td>Chemical, Biological, Radiological and Nuclear</td>
</tr>
<tr>
<td>CBRNE</td>
<td>Chemical, Biological, Radiological, Nuclear and Explosives</td>
</tr>
<tr>
<td>CCC</td>
<td>Command and Co-ordination Centre (Interpol)</td>
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<tr>
<td>CEPOL</td>
<td>European Police College (an Agency of the EU)</td>
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<tr>
<td>CNPA</td>
<td>Counter Narcotics Police of Afghanistan</td>
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<tr>
<td>CODIS</td>
<td>A DNA profiling system</td>
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<td>CRFP</td>
<td>Council for the Registration of Forensic Practitioners (UK)</td>
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<tr>
<td>CSE</td>
<td>Crime Scene Examiner</td>
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<td>CT</td>
<td>Counter Terrorism</td>
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<tr>
<td>CTTF</td>
<td>Counter Terrorism Task Force (EU / Europol)</td>
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<tr>
<td>DGT</td>
<td>Directorate-General for Translation (EC)</td>
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<tr>
<td>DNA</td>
<td>DeoxyriboNucleic Acid</td>
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<td>DNA SRN</td>
<td>DNA Search Request Network (G8)</td>
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<td>DVI</td>
<td>Disaster Victim Identification</td>
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<tr>
<td>EA</td>
<td>European Cooperation for Accreditation</td>
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<td>EAFA</td>
<td>European Academy of Forensic Science (an ENFSI Standing Committee)</td>
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<tr>
<td>ECTU</td>
<td>European counter-terrorism units</td>
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<td>EDU</td>
<td>Europol Drugs Unit</td>
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<td>EJTN</td>
<td>European Judicial Training Network</td>
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<td>ELO</td>
<td>Europol Liaison Officers</td>
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<tr>
<td>EMFA</td>
<td>European Mentorship for Forensic Accreditation (a current forensic cooperation initiative by ENFSI)</td>
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<tr>
<td>ENFSI</td>
<td>European Network of Forensic Science Institutes</td>
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<td>ENU</td>
<td>Europol National Units</td>
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<td>ESS</td>
<td>European Standard Set - a set of agreed DNA markers</td>
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<td>EUCAP</td>
<td>European Collection of Automotive Paints</td>
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<tr>
<td>EURODAC</td>
<td>A European civil fingerprint database used with asylum seekers.</td>
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<td>EWG</td>
<td>Expert Working Group (of ENFSI)</td>
</tr>
<tr>
<td>FBI</td>
<td>Federal Bureau of Investigation</td>
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<tr>
<td>FORJUST</td>
<td>An ENFSI project involving training collaboration between forensic institutes and schools for police, prosecutors, lawyers and judges (amalgamated from the terms forensics and justice.)</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>FORSTAT</td>
<td>An ENFSI initiative raising quality standards in the area of forensic interpretation (the name is a contraction of “Forensic Statistics”)</td>
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<tr>
<td>FP</td>
<td>Fingerprints</td>
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<td>G8</td>
<td>Group of Eight Nations</td>
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<tr>
<td>IAEG</td>
<td>Interpol AFIS Expert Group</td>
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<td>IAF</td>
<td>International Association of Forensic Science</td>
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<td>IEC</td>
<td>International Electrotechnical Commission</td>
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<td>IFSA</td>
<td>International Forensic Strategic Alliance</td>
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<td>ILAC</td>
<td>International Laboratory Accreditation Cooperation</td>
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<td>ISO</td>
<td>International Organisation for Standardisation</td>
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<td>ISSOL</td>
<td>Interpol Standard Set of Loci - a set of agreed DNA markers</td>
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<tr>
<td>ITAU</td>
<td>International Training Assistance Unit (FBI)</td>
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<tr>
<td>KMC</td>
<td>Knowledge Management Centre (Europol)</td>
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<tr>
<td>MOU</td>
<td>Memorandum of understanding</td>
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<tr>
<td>NCB</td>
<td>National Central Bureau (Interpol)</td>
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<td>OOS</td>
<td>One-day one-topic seminar (ENFSI)</td>
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<tr>
<td>PDQ</td>
<td>Paint Data Query - Canadian/American paint database</td>
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<tr>
<td>PoA</td>
<td>Principle of Availability - EU principle for information sharing (The Hague Programme)</td>
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<tr>
<td>QCC</td>
<td>Quality and Competence Committee (a standing committee of ENFSI)</td>
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<td>QCLG</td>
<td>Quality and Competence Liaison Group (an ENFSI Group)</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<tr>
<td>SAG</td>
<td>Specialist Advisory Groups (within SMANZFL)</td>
</tr>
<tr>
<td>SARPCCO</td>
<td>Southern African Regional Police Chiefs Cooperation Organisation</td>
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<tr>
<td>SEMTA</td>
<td>A UK Sector Skills Council (part of whose remit is forensic science)</td>
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<tr>
<td>SIRENE</td>
<td>Supplementary Information Request at the National Entry (Schengen)</td>
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<td>SIS</td>
<td>Schengen Information System</td>
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<tr>
<td>SMANZFL</td>
<td>Senior Managers of Australian and New Zealand Forensic Laboratories</td>
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<tr>
<td>STR</td>
<td>Short Tandem Repeat (DNA)</td>
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<td>TIFS</td>
<td>The International Forensic Summit</td>
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<td>UN</td>
<td>The United Nations</td>
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<td>UNESCO</td>
<td>UN Educational, Scientific and Cultural Organisation</td>
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<tr>
<td>UNIIIC</td>
<td>United Nations International Independent Investigation Commission</td>
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<tr>
<td>UNODC</td>
<td>The United Nations Office on Drugs and Crime</td>
</tr>
<tr>
<td>VIS</td>
<td>Visa Information System (a civil system for the exchange of visa data between EU Member States)</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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## 21 Bibliography

<table>
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<td>EUROJUST</td>
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<td>EUROPOL</td>
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<td>IFSA</td>
<td>See the ENFSI website (<a href="http://www.enfsi.eu">www.enfsi.eu</a>)</td>
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<td>INTERPOL</td>
<td><a href="http://www.interpol.int">www.interpol.int</a></td>
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<td>The International Forensic Summit (TIFS)</td>
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<td>UNODC</td>
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</table>
TABLE 1  List of ENFSI Institutes (ENFSI Director Survey – May 2008)

<table>
<thead>
<tr>
<th>Country</th>
<th>Institute Name</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>Department of Forensic Sciences</td>
<td>DFS - Vienna</td>
</tr>
<tr>
<td>Belgium</td>
<td>Nationaal Instituut voor Criminalistiek en Criminologie</td>
<td>NICC - Brussels</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Research Institute of Forensic Science and Criminology</td>
<td>RIFSC - Sofia</td>
</tr>
<tr>
<td>Croatia</td>
<td>Centar za Kriminalisticka Vjestacenja &quot;Ivan Vucevic&quot;</td>
<td>CKV - Zagreb</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Criminalistic Services</td>
<td>CSCP - Nicosia</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Institute of Criminalistics Prague</td>
<td>ICP - Prague</td>
</tr>
<tr>
<td>Denmark</td>
<td>National Centre of Forensic Science</td>
<td>FSD - Arhus</td>
</tr>
<tr>
<td>Estonia</td>
<td>Estonian Forensic Science Institute</td>
<td>EFSI - Tallinn</td>
</tr>
<tr>
<td>Finland</td>
<td>National Bureau of Investigation Forensic Laboratory (Keskusrikospoliisi, Rikostechninen laboratorio)</td>
<td>RTL - Vantaa</td>
</tr>
<tr>
<td>France</td>
<td>Institut de Recherche Criminelle de la Gendarmerie Nationale</td>
<td>IRCGN - Rosny-sous-bois</td>
</tr>
<tr>
<td>Germany</td>
<td>Landeskriminalamt Baden-Württemberg, Kriminaltechnisches Institut</td>
<td>LKA BW-KTI Stuttgart</td>
</tr>
<tr>
<td></td>
<td>Bundeskriminalamt, Kriminaltechnisches Institut</td>
<td>BKA-KTI Wiesbaden</td>
</tr>
<tr>
<td></td>
<td>Landeskriminalamt Berlin, Kompetenzzentrum Kriminaltechnik</td>
<td>LKA BE-KT Berlin</td>
</tr>
<tr>
<td></td>
<td>Landeskriminalamt Nordrhein-Westfalen, Kriminalwissenschaftliches und –technisches Institut</td>
<td>LKA NRW-KTI Düsseldorf</td>
</tr>
<tr>
<td>Greece</td>
<td>Forensic Science Division</td>
<td>FSD - Athens</td>
</tr>
<tr>
<td>Hungary</td>
<td>Institute for Forensic Science</td>
<td>IFS - Budapest</td>
</tr>
<tr>
<td>Ireland</td>
<td>Forensic Science Laboratory (Department of Justice, Equality and Law Reform)</td>
<td>FSL - Dublin</td>
</tr>
<tr>
<td>Italy</td>
<td>Forensic Science Police Service</td>
<td>DAC - Roma</td>
</tr>
<tr>
<td></td>
<td>Raggruppamento Carabinieri Investigazioni Scientifiche</td>
<td>RaCiS - Roma</td>
</tr>
<tr>
<td>Latvia</td>
<td>State Forensic Science Bureau</td>
<td>SFSB - Riga</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Forensic Science Center of Lithuania</td>
<td>FSC - Vilnius</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Netherlands Forensic Institute</td>
<td>NFI - The Hague</td>
</tr>
<tr>
<td>Norway</td>
<td>National Criminal Investigation Service Laboratory Division</td>
<td>NCIS - Oslo</td>
</tr>
<tr>
<td>Poland</td>
<td>Central Forensic Laboratory of the Police</td>
<td>CFLP - Warsaw</td>
</tr>
<tr>
<td></td>
<td>Instytut Eksperytyz Sadowych / Institute of Forensic Research</td>
<td>IFR - Krakow</td>
</tr>
<tr>
<td>Portugal</td>
<td>Laboratorio de Policia Cientifica da Politica Judiciaria</td>
<td>LPC - Lisboa</td>
</tr>
<tr>
<td>Romania</td>
<td>Forensic Science Institute from Romanian General Inspectorate of Police</td>
<td>IC/IGPR - Bucharest</td>
</tr>
<tr>
<td></td>
<td>National Institute of Forensic Expertise</td>
<td>NIFE - Bucharest</td>
</tr>
<tr>
<td>Russia</td>
<td>Forensic Science Center, Ministry of the Interior</td>
<td>FSC - Moscow</td>
</tr>
<tr>
<td></td>
<td>The Russian Federal Center of Forensic Science of the Ministry of Justice</td>
<td>RFCS - Moscow</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Kriminalisticky a Expertizny Ustav Policajeho Zbunu</td>
<td>KEUPZ - Bratislava</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Ministry of Interior Forensic Science Laboratory</td>
<td>FSL - Ljubljana</td>
</tr>
<tr>
<td>Spain</td>
<td>Guardia Civil Servicio De Criminalistica</td>
<td>SECRIM - Madrid</td>
</tr>
<tr>
<td></td>
<td>Instituto Nacional de Toxicologia y Ciencias Forenses</td>
<td>INTCF - Madrid</td>
</tr>
<tr>
<td></td>
<td>Comisaria General de Politica Cientifica</td>
<td>CGPC - Madrid</td>
</tr>
<tr>
<td></td>
<td>Policía De La Generalitat - Mossos D’ Espanya</td>
<td>CME - Barcelona</td>
</tr>
<tr>
<td></td>
<td>Unidad de Politica Cientifica Division de Politica de lo Criminal ERTZAINATZA</td>
<td>ERTZAINATZA – Bizkaia</td>
</tr>
<tr>
<td>Sweden</td>
<td>National Laboratory of Forensic Science</td>
<td>SKL - Linköping</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Ecole de Sciences Criminelles</td>
<td>ESC - Lausanne</td>
</tr>
<tr>
<td></td>
<td>Kantonspolizei Zürich Kriminaltechnische Abteilung</td>
<td>KTA - Zürich</td>
</tr>
<tr>
<td></td>
<td>Stadtpolizei Zürich Wissenschaftlicher Dienst</td>
<td>WD - Zürich</td>
</tr>
<tr>
<td>Turkey</td>
<td>Istanbul Universitesi Adli Tip Etnibüsü</td>
<td>ATE - Istanbul</td>
</tr>
<tr>
<td></td>
<td>Kriminal Polis Laboratuaturan Dainesi Balkanliyi</td>
<td>KPLD - Ankara</td>
</tr>
<tr>
<td></td>
<td>Jandarma Genel Komutanlik Kriminal Daire Balkanliyi</td>
<td>JKDDB - Ankara</td>
</tr>
<tr>
<td></td>
<td>The Council of Forensic Medicine (Adli Tip Kurumu)</td>
<td>ATK - Istanbul</td>
</tr>
<tr>
<td>Ukraine</td>
<td>State Scientific Research Expertise and Forensic Centre</td>
<td>SRFEC - Kyiv</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>University of Strathclyde Forensic Science Centre</td>
<td>FSU - Glasgow</td>
</tr>
<tr>
<td></td>
<td>Forensic Science Northern Ireland</td>
<td>FSN - Belfast</td>
</tr>
<tr>
<td></td>
<td>Scottish Police Services Authority – Forensic Services</td>
<td>SPSAFS - Glasgow</td>
</tr>
<tr>
<td></td>
<td>Forensic Science Service</td>
<td>FSS - London</td>
</tr>
<tr>
<td></td>
<td>LGC Forensics</td>
<td>LGCF - Oxfordshire</td>
</tr>
</tbody>
</table>

39 institutes (highlighted in yellow) submitted responses to the questionnaire
### TABLE 2

**Chairs of ENFSI Expert Working Groups (Survey – February 2008)**

<table>
<thead>
<tr>
<th>Field</th>
<th>Chair</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Imaging</td>
<td>Dr Jurrien Bijhold</td>
<td>The Netherlands</td>
</tr>
<tr>
<td>DNA</td>
<td>Dr Ingo Bastisch</td>
<td>Germany</td>
</tr>
<tr>
<td>Documents</td>
<td>Rolf Hofer *</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Drugs</td>
<td>Dr Michael Bovens</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Explosives</td>
<td>Dr Zuzanna Brozek-Mucha</td>
<td>Poland</td>
</tr>
<tr>
<td>Fibres</td>
<td>Kornelia Nehse</td>
<td>Germany</td>
</tr>
<tr>
<td>Fingerprints</td>
<td>Paul Chamberlain</td>
<td>UK</td>
</tr>
<tr>
<td>Firearms</td>
<td>Dr Walter Wenz</td>
<td>Germany</td>
</tr>
<tr>
<td>Fire &amp; Explosion Investigation</td>
<td>Niina Viitala</td>
<td>Finland</td>
</tr>
<tr>
<td>Forensic Information Technology</td>
<td>Dr Zeno Geradts</td>
<td>The Netherlands</td>
</tr>
<tr>
<td>Forensic Speech &amp; Audio Analysis</td>
<td>Catalin Grigoras</td>
<td>Romania</td>
</tr>
<tr>
<td>Handwriting</td>
<td>Stephen Maxwell</td>
<td>UK</td>
</tr>
<tr>
<td>Marks</td>
<td>Dave Baldwin</td>
<td>UK</td>
</tr>
<tr>
<td>Paint &amp; Glass</td>
<td>Knut-Endre Sjaastad</td>
<td>Norway</td>
</tr>
<tr>
<td>Road Accident Analysis</td>
<td>Jakob Zebala</td>
<td>Poland</td>
</tr>
<tr>
<td>Scenes of Crime</td>
<td>Wout Karelse</td>
<td>The Netherlands</td>
</tr>
</tbody>
</table>

* A new chair (Dr Fritz Köhler, Germany) has been appointed during the course of 2008.
### TABLE 3  Work Programme used for Information Gathering and Data Evaluation

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td>Knowledge Capture Exercise</td>
<td></td>
</tr>
<tr>
<td>Questioning of expert contacts of team members</td>
<td></td>
</tr>
<tr>
<td>Finalise design of EWG Chair questionnaire</td>
<td></td>
</tr>
<tr>
<td>Questionnaires to EWG Chairs</td>
<td></td>
</tr>
<tr>
<td>Questioning of National Prosecutors for Terrorism Cases</td>
<td></td>
</tr>
<tr>
<td>Questionnaires to a) NCTs b) Europol Liaison Bureaus</td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td></td>
</tr>
<tr>
<td>Questioning of contacts in Europol &amp; Interpol</td>
<td></td>
</tr>
<tr>
<td>Questioning of contacts amongst IFSA Members</td>
<td></td>
</tr>
<tr>
<td>Europe Wide Survey</td>
<td></td>
</tr>
<tr>
<td>Analysis of knowledge capture information</td>
<td></td>
</tr>
<tr>
<td>Design of questionnaire for forensic institutes</td>
<td></td>
</tr>
<tr>
<td>Questionnaire survey of forensic institutes</td>
<td></td>
</tr>
<tr>
<td>Evaluation &amp; Reporting</td>
<td></td>
</tr>
<tr>
<td>Drafting the interim report</td>
<td></td>
</tr>
<tr>
<td>Issuing the interim report</td>
<td></td>
</tr>
<tr>
<td>Evaluating results and formulating recommendations</td>
<td></td>
</tr>
<tr>
<td>Further data collection and clarification (as appropriate)</td>
<td></td>
</tr>
<tr>
<td>Drafting the final report</td>
<td></td>
</tr>
<tr>
<td>Issuing the final report</td>
<td></td>
</tr>
<tr>
<td>Team Meetings †</td>
<td>X</td>
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</tbody>
</table>

† Team meetings: 22nd January, 22nd/23rd April, 4th/5th September, 13th/14th October and 24th-26th November
## TABLE 4 Overview of Sixteen ENFSI Expert Working Groups (2007)

### *ENFSI Expert Working Groups (EWGs) 2007*

<table>
<thead>
<tr>
<th>Membership</th>
<th>Digital Imaging</th>
<th>DNA</th>
<th>Documents</th>
<th>Drugs</th>
<th>Explosives</th>
<th>Fibres</th>
<th>Fingerprints</th>
<th>Firearms</th>
<th>Fire &amp; Explosion Investigation</th>
<th>Forensic Information Technology</th>
<th>Forensic Speech &amp; Audio</th>
<th>Hand Writing</th>
<th>Marks</th>
<th>Paint &amp; Glass</th>
<th>Road Accident Analysis</th>
<th>Scenes of Crime</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. Full Members</td>
<td>37</td>
<td>53</td>
<td>57</td>
<td>36</td>
<td>26</td>
<td>42</td>
<td>35</td>
<td>77</td>
<td>52</td>
<td>21</td>
<td>27</td>
<td>54</td>
<td>42</td>
<td>31</td>
<td>11</td>
<td>45</td>
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<tr>
<td>No. Associate Members (AMs)</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>17</td>
<td>27</td>
<td>20</td>
<td>8</td>
<td>13</td>
<td>17</td>
<td>4</td>
<td>17</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>incl.</td>
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<tr>
<td>Percentage Full Members</td>
<td>69%</td>
<td>93%</td>
<td>88%</td>
<td>92%</td>
<td>60%</td>
<td>61%</td>
<td>64%</td>
<td>91%</td>
<td>80%</td>
<td>55%</td>
<td>87%</td>
<td>76%</td>
<td>100%</td>
<td>94%</td>
<td>92%</td>
<td>?</td>
</tr>
<tr>
<td>Countries Represented in EWG (European + non-European)</td>
<td>26+3</td>
<td>32</td>
<td>31+5</td>
<td>13+1</td>
<td>31+4</td>
<td>28+6</td>
<td>29</td>
<td>22+3</td>
<td>22</td>
<td>35</td>
<td>26</td>
<td>9</td>
<td>22</td>
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<tr>
<td>No. Members in Steering Committee (+ AMs)</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>6</td>
<td>7+1</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>15</td>
<td>3</td>
<td>8</td>
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<tr>
<td>Meetings / Other Events</td>
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<td></td>
<td></td>
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<tr>
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<td>3</td>
<td>2</td>
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<tr>
<td>No. Conferences (No. Participants)</td>
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<td>1 (40)</td>
<td>1</td>
<td>1 (285)**</td>
<td>1</td>
<td>1 (69)</td>
<td>1</td>
<td>1</td>
<td>1 (50)</td>
<td>1 (27)</td>
<td>1</td>
<td>1</td>
<td>1 (56)</td>
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<tr>
<td>Sub Group Meetings</td>
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<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Workshops / Courses</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td><strong>Aims Stated in EWG Terms of Reference:</strong></td>
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</tr>
<tr>
<td>Exchange information &amp; Expertise</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>QA, Best Practice Manuals, collaborative tests, harmonisation &amp; standardisation</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Collaboration on R&amp;D</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Education, training</td>
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<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>Joint databases</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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</tr>
</tbody>
</table>

* Data Collected from the ENFSI EWG Annual Reports for 2007 and the ENFSI Website (2 December 2008)

** A combined event with the trienniel ISADE Symposium (9th International Symposium on the Analysis and Detection of Explosives, Paris - 2007)

*** Comparison of EWG Terms of Reference against activities listed in the ENFSI Policy Document “Framework for Expert Working Groups” (BRD-FWK-003)
Study on Obstacles to Cooperation and Information-sharing among Forensic Science Laboratories and other Relevant Bodies of Different Member States and between these and Counterparts in Third Countries
Contract JLS/D1/2007/025

FINAL REPORT

APPENDICES
APPENDIX ONE  Questionnaire to the Directors of ENFSI Forensic Science Institutes
QUESTIONNAIRE TO THE ENFSI DIRECTORS
MAY 2008

Study on Obstacles to Cooperation and Information-Sharing among Forensic Science Institutes (Preparedness for Responding to Terrorist Incidents)

This Work is Financed by the European Commission
DG Justice, Freedom and Security

Supported by The European Network of Forensic Science Institutes (ENFSI)

Supported by EUROJUST
INTRODUCTION

Study on Obstacles to Cooperation and Information-sharing among Forensic Science Laboratories and other Relevant Bodies of Different Member States and between these and Counterparts in Third Countries. [A study sponsored by the European Commission – Contract No. JLS/D1/2007/025]

A contract with the European Commission (EC) has been secured to deliver a study on forensic cooperation. The contract runs for one year from 20 Dec 2007. The study is closely aligned with a project initiated by the ENFSI Board to examine the preparedness of European Institutes in the event of a terrorist incident. The study is using forensic cooperation in the event of a terrorist bomb attack as the focus for understanding the current obstacles. The objective of the study is to provide a comprehensive overview and insight into the obstacles (gaps, limiting factors etc.) that inhibit European forensic laboratories from sharing forensic information in support of law enforcement investigations and subsequent prosecutions. The key objectives are to identify the obstacles to cooperation that exist nationally and internationally and to recommend ways in which these can be overcome.

The study is being conducted by a senior team drawn from the ENFSI Institutes (France, Germany, The Netherlands, Spain, Sweden, Turkey and the UK) along with a representative from Eurojust. The study is being led by The Forensic Science Service (UK).

The Questionnaire is in two parts:

PART A Survey of Current Preparedness within your ENFSI Institute
The aim of these questions is to provide a broad survey of ENFSI Institutes with reference to their "preparedness" to deliver forensic services in the event of a terrorist incident. Thus, these questions ask you to assess the "preparedness" of your own Forensic Institute.

PART B National / European / International Forensic Cooperation
The aim of these questions is to gather evidence on the current barriers to forensic cooperation that exist between institutes (both nationally and internationally). Many of the questions are deliberately "broad" and "open" to provide you with the opportunity to share your past practical experiences of forensic cooperation. In doing so we are looking to gather the "KEY LEARNING POINTS" (both good and bad) that have arisen from those practical experiences (what worked, what didn't work and why?). Thus, these questions seek information about your general experiences of forensic cooperation (National, European and International) as viewed from your own country.

FURTHER GUIDANCE NOTES CAN BE FOUND BEFORE PARTS A & B.

PRACTICAL NOTES FOR COMPLETING THE QUESTIONNAIRE
The Questionnaire is a Microsoft® Word Document set up for completion as an on-screen form. The questions contain numerous “tick boxes” (indicated as grey squares). To tick a box just single-click the box. To remove the tick just single-click the box again. Text answers can be entered wherever you see a 'grey text field'. These text fields will expand automatically to accommodate your answers of any length.

CONFIDENTIALITY
The information that you provide will be treated in confidence. The information will only be used to draw conclusions and the specific sources will not be identified. The report arising from the study will be submitted to the European Commission (EC) - DG Justice, Freedom and Security and the EC will be free to publish the contents (with due consideration to all security and confidentiality matters).

THANK YOU FOR GIVING YOUR TIME TO ANSWER THE QUESTIONS
These questions are seeking to gain an understanding of the current “preparedness” of your own Forensic Institute to deliver services as part of a counter-terrorism response. Further, terrorist incidents can cover many different situations. Thus, the focus for the current questions on “preparedness” is to concentrate mainly on the potential response to a terrorist bomb incident (rather than a CBRN incident, say).

“Forensic preparedness” is important in the event of a terrorist attack but it also needs to be considered in the context of the support provided to operations that gather intelligence or disrupt terrorist attacks before they occur.

The “preparedness” of a Forensic Institute to respond to a terrorist incident covers a wide range of factors. Clearly the scientific capability of the Institute, in terms of forensic expertise, know-how and facilities are all very significant. For example, being able to identify traces of explosives and to recover fingerprints, DNA and data from damaged mobile phones, might be considered to be important capabilities.

Nevertheless, there are many other factors relating to the management of the Forensic Institute that also contribute to the overall “preparedness”. ‘Preparedness’ is as much (if not more) to do with management as it is with delivering capabilities. Having specialist teams on standby who can attend the scene of an explosion or having procedures in place to handle very large numbers of exhibits or having a contingency plan to deal with the welfare of staff during a major incident are equally important.

Thus, when thinking about “preparedness” it is important to consider broad areas. These might include:

- different areas of work (scene, laboratory, court)
- health & safety
- training & competence
- staff welfare
- space availability (storage, examinations)
- specialist teams
- quality
- science & technology
- security
- communication
- contingency planning
- relevant forensic databases

It is fully appreciated that some Forensic Institutes will be answering the questions on the basis of experience in dealing with a terrorist incident whilst others will be answering the questions on the basis of predictions should a terrorist incident occur in the future.

In order for your replies to have the greatest value, please provide as much information as you can when answering the questions. The study is seeking to achieve an accurate survey of Forensic Institutes across Europe as a first step towards assessing the opportunities for further raising the levels of European “preparedness” for tackling terrorism in the future.
# About Your Forensic Institute

<table>
<thead>
<tr>
<th>A.1</th>
<th>Please give the full name of your Forensic Institute:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A.2</th>
<th>Does your Forensic Institute have more than one geographical location? Yes  No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If yes, please provide details (including whether all capabilities are delivered from all locations):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.3</th>
<th>How many staff do you have, in total?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.4</th>
<th>What is the status of your Forensic Institute?  (select all those that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Private</td>
</tr>
<tr>
<td></td>
<td>Government (Please indicate which Ministry)</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details)</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>A.5</th>
<th>What is the mandate or scope of your Institute?  (select those that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All crime</td>
</tr>
<tr>
<td></td>
<td>Specific crimes only (Please provide details)</td>
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<tr>
<td></td>
<td>National security</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details)</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
</tr>
</tbody>
</table>

## Experience of Terrorist Incidents

<table>
<thead>
<tr>
<th>A.6</th>
<th>Does your Forensic Institute have any experience of responding to terrorist bomb incidents?  Yes  No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If yes, please provide details (including the number of incidents since January 2003):</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.7</th>
<th>Do any non-ENFSI forensic providers deliver forensic services for terrorist incidents within your country? Yes  No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If yes, please provide details and examples, as appropriate:</td>
</tr>
</tbody>
</table>

## Terrorist Incidents (Scene Examination)

<table>
<thead>
<tr>
<th>A.8</th>
<th>Who would direct forensic science examinations at terrorist scenes?  (select one or more)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Police</td>
</tr>
<tr>
<td></td>
<td>Prosecutor</td>
</tr>
<tr>
<td></td>
<td>Judge / Magistrate</td>
</tr>
<tr>
<td></td>
<td>Security Services</td>
</tr>
<tr>
<td></td>
<td>Military</td>
</tr>
<tr>
<td></td>
<td>Your Forensic Institute</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.9</th>
<th>Would your Forensic Institute send staff to the scene of a terrorist incident? Yes  No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If &quot;yes&quot;, does your Forensic Institute have dedicated teams of experts who will attend to deal with:</td>
</tr>
<tr>
<td></td>
<td>post bomb explosion scenes? Yes  No</td>
</tr>
<tr>
<td></td>
<td>the identification of victims? Yes  No</td>
</tr>
<tr>
<td></td>
<td>Chemical, Biological, Radiological, Nuclear (CBRN) incidents? Yes  No</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.10</th>
<th>Would your Forensic Institute send a scientist to advise the investigators? Yes  No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If yes, please provide details:</td>
</tr>
</tbody>
</table>

| A.11 | If your Forensic Institute would not send staff to the scene, what other forensic providers would attend?  (Please provide details): |

<table>
<thead>
<tr>
<th>A.12</th>
<th>What capabilities could your Forensic Institute deploy at the scene?  (select all those that apply)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Searching</td>
</tr>
<tr>
<td></td>
<td>Recovering Items for Submission to the Laboratory</td>
</tr>
<tr>
<td></td>
<td>Sampling</td>
</tr>
</tbody>
</table>
### Developing Fingerprints

### Detection of Explosives

### Technical Examination of Post Blast Materials

### Testing for Other Hazardous Materials (Please provide details):

### Other (Please provide details):

<table>
<thead>
<tr>
<th>A.13</th>
<th>Are Bomb Disposal Teams deployed by your Forensic Institute?</th>
<th>Yes ☐ No ☐</th>
<th>If yes, please provide details:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A.14</th>
<th>Do you have a major-incident plan for scene attendance?</th>
<th>Yes ☐ No ☐</th>
<th>If &quot;yes&quot; does it include:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>call out arrangements (24 hours / 7 days) for key members of staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shift working arrangements?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>accommodation arrangements for staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>late / early travel arrangements for staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>generic risk assessments?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other support?</td>
<td>Yes ☐ No ☐</td>
<td>(Please provide details):</td>
</tr>
</tbody>
</table>

| A.15 | Do you have a rapid (or special) scene examination team? | Yes ☐ No ☐ | If "yes", please provide details: |

#### Terrorist Incidents (Management of Staff & Resources at the Laboratory)

<table>
<thead>
<tr>
<th>A.16</th>
<th>Do you have a major-incident plan for laboratory work?</th>
<th>Yes ☐ No ☐</th>
<th>If &quot;yes&quot; does it include:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>call out arrangements (24 hours / 7 days) for key members of staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>shift working arrangements?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>accommodation arrangements for staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>late / early travel arrangements for staff?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>generic risk assessments?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other support?</td>
<td>Yes ☐ No ☐</td>
<td>(Please provide details):</td>
</tr>
</tbody>
</table>

| A.17 | Do you have a rapid (or special) laboratory team? | Yes ☐ No ☐ | If "yes", please provide details: |

#### Terrorist Incidents (Urgent Handling of Large Numbers of Exhibits)

<table>
<thead>
<tr>
<th>A.18</th>
<th>Do you have procedures for the urgent handling of large numbers of exhibits?</th>
<th>Yes ☐ No ☐</th>
<th>If &quot;yes&quot;, have the procedures been tested:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in real incidents?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>using simulations?</td>
<td>Yes ☐ No ☐</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Please provide further details, as appropriate:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.19</th>
<th>In the event of a terrorist incident, are you confident that you have enough trained staff?</th>
<th>Yes ☐ No ☐</th>
<th>space for storage?</th>
<th>Yes ☐ No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>space for examinations?</td>
<td>Yes ☐ No ☐</td>
<td>equipment &amp; consumables?</td>
<td>Yes ☐ No ☐</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, as appropriate:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A.20</th>
<th>In the event of a terrorist incident, are you confident that your continuity procedures are effective?</th>
<th>Yes ☐ No ☐</th>
<th>your anti-contamination procedures are effective?</th>
<th>Yes ☐ No ☐</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Please provide further details, as appropriate:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| A.21 | If the capacity of your Forensic institute is exceeded as a result of your response to a terrorist incident, are any contingency plans in place? | Yes ☐ No ☐ | If yes, please provide details: |

#### Terrorist Incidents (Liaison)

<table>
<thead>
<tr>
<th>A.22</th>
<th>After a terrorist incident who decides what forensic examinations take place? (select one or explain multiple selections)</th>
<th>☐ Policy</th>
<th>☐ Prosecutor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐ Judge / Magistrate</td>
<td>☐ Security Services</td>
<td>☐ Military</td>
</tr>
<tr>
<td></td>
<td>☐ Your Forensic Institute</td>
<td>☐ Other (Please provide details):</td>
<td>Please explain multiple selections:</td>
</tr>
</tbody>
</table>
A.23  How does your Forensic Institute liaise with the person/body identified in Question A.22 (above)?
- Not Applicable
- One Nominated Scientist
- Several Senior Scientists
- Any Scientist Involved
- Other (Please provide details):
  Please provide further details, as appropriate:

A.24  Do you have a secure means of communication?  Yes [ ] No [ ]
If yes, please provide details:

A.25  Does your Institute engage in counter-terrorist exercises organised within your country?
- Organising such exercises?  Yes [ ] No [ ]
- Participating in such exercises?  Yes [ ] No [ ]
If “yes” to either or both questions then please provide details:

**Forensic Databases**

A.26  What access does your Institute have to Forensic Databases that have a relevance to Counter-Terrorism work? Please list:

**Further Comments**

A.27  Please add further comments about the “preparedness” of your Forensic Institute if these points have not been covered by the preceding questions.
  Your answer here:

**END OF PART A**
PART B GUIDANCE NOTES
NATIONAL / EUROPEAN / INTERNATIONAL FORENSIC COOPERATION

These questions are seeking to gain a general overview of forensic cooperation with reference to your own country (rather than a specific view limited to your own Forensic Institute).

Although, the study is focused on forensic cooperation between European countries, the study team fully recognises that the “obstacles to forensic cooperation” have no geographical boundaries. Thus, in this respect, the study team is also keen to learn from all experiences of forensic cooperation:

with countries anywhere in the world including those outside of Europe inside your own country, between different forensic institutes or other agencies.

The current questions are designed to collect evidence about the experiences gained through “practical examples of forensic cooperation”. In many circumstances the cooperation may be on a mutual basis (eg the reciprocal sharing of forensic information). In other instances a country may be the recipient or the provider of forensic support. The study looks to identify the “obstacles to cooperation” that have been experienced and to list the “key learning points” (good or bad) that have arisen from such experiences. Further, the study seeks views on future changes and/or initiatives that might improve future cooperation in forensic matters.

When answering the questions the following notes are designed to provide a general framework for stimulating thought around the diverse areas of forensic cooperation (and the associated obstacles). Nevertheless, the notes are not meant to be prescriptive and should not be allowed to hinder your own original approaches when addressing this complex topic.

International Forensic Cooperation

The application of forensic science can cover a very wide range of areas including:

Support to the prosecution of major crime and terrorism.
Investigations to identify the criminals involved in a major crime or terrorism incident.
The identification of victims following a terrorist incident or a large scale natural disaster.
Contributions to intelligence gathering to pursue criminals and to prevent criminal acts.

Although the current EC study is particularly focused on cooperation in the field of counter terrorism, please consider all areas of forensic cooperation when thinking about your responses to the current questions. The insights gained and the lessons learned through experiences in other areas of criminality (major crime, organised crime etc.), beyond terrorism, will be equally valuable.

Types of Cooperation

There are a wide range of circumstances in which countries might cooperate in forensic matters. Examples can include:

Support provided to other countries to ensure that forensic laboratories and legal systems are prepared for future forensic incidents/events/cases. This might involve the training of staff, the sharing of expertise and experience, support to quality systems or the set up of forensic facilities.
The sharing or joint searching of forensic data collections held in different countries. This might include common databases shared across computer networks. Alternatively, it might involve agreed procedures by which databases can be accessed by other countries. In addition to electronic databases, ‘data collections’ might include physical collections of materials of forensic interest.

The provision of practical operational support to another country/laboratory at a time of need (e.g. in the immediate aftermath of a major terrorist incident when local forensic resources are overwhelmed). Such practical support might involve the transfer of exhibits to a laboratory in a different country for forensic examination or, alternatively, the secondment of forensic experts to a laboratory in the original country to perform the examinations.

Following the provision of practical support to another country the forensic scientists involved with the casework examination of the items originating from the requesting country may be required to contribute to the legal processes within the second country (e.g. the provision of ‘expert opinion’, the drafting of legal reports, the delivery of verbal testimony in a courtroom during a prosecution).

**Obstacles to Cooperation**

There are a wide range of matters that can hinder the forensic cooperation between different countries. These include factors that are directly influenced or controlled by the forensic laboratories/institutes that carry out the forensic examinations. Some are technical matters relating to the scientific methods being used (e.g. the compatibility of data) but others relate to the management of the forensic laboratories and their staff resources (e.g. the ability/willingness to release staff for overseas work).

In addition, there are other potential obstacles to forensic cooperation (often legal matters) that can occur between countries. In these instances other agencies can be involved as well as the forensic laboratories:

- the agencies investigating crime (police, security services etc.),
- the authorities involved with the prosecution of crime (prosecutors, courts etc.).

Thus, there are many different agencies involved in achieving effective “forensic cooperation” both within a given country and across international borders – the forensic laboratories, the investigation agencies, the prosecution agencies and the courts. Further, there are some existing international agencies that can facilitate forensic cooperation in some areas (e.g. Europol, Eurojust, Interpol). Consequently, there are many different contact points and interfaces between these various agencies where forensic data and/or forensic opinion is discussed, exchanged and utilised. It is the potential obstacles at these numerous complex interfaces that determine the overall effectiveness of forensic cooperation. Thus, in helping to understand the obstacles to international forensic cooperation it is valuable to recognise:

**WHAT?** - the exact nature of the “forensic information” involved in the cooperation. This might include:

- raw forensic data (arising from a specific forensic casework examination).
- expert forensic opinion (arising from the interpretation of the results from a specific casework examination).
- forensic data collection (an electronic database or a physical collection used to support the future interpretation of forensic casework results).
- forensic know-how (expertise and experience related to forensic matters).

**WHY?** - the reason for the desired cooperation (e.g. access to “expert forensic opinion” for a specific case to provide intelligence to support an international investigation, the use of “raw casework forensic data” to create a shared national or international forensic data collection).
**WHO?** - the agencies involved at the interface where cooperation is desired (between forensic laboratories, between investigation agencies, between a forensic laboratory and an investigation or prosecution agency etc.).

In order for your replies to have the greatest value, please provide as much information as you can when answering the questions. The study is seeking to identify the KEY LEARNING POINTS that have arisen from OPERATIONAL EXAMPLES AND PRACTICAL EXPERIENCE where forensic cooperation and information sharing have been successful (or could have been more successful, or were hindered by significant obstacles). Ideas for changes and/or initiatives that might improve future cooperation are particularly welcome.
PART B QUESTIONS
NATIONAL / EUROPEAN / INTERNATIONAL FORENSIC COOPERATION

Exchange of Forensic Information Between Different Countries

B.1 Please provide any examples of casework situations where:
- you have been involved when your country has needed to request forensic information from a different country?
- you have been involved when a request has been received for forensic information from a different country?
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such requests.

Your answer here:

Operational Forensic Support Across International Borders

B.2 Please provide any examples of casework situations where:
- you have provided operational forensic casework support to a different country at a time of need
- you have received operational forensic casework support from a different country at a time of need
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such work.

Your answer here:

Preparedness (Support to Help Develop Local Operational Capability)

B.3 Please provide any examples of situations where:
- you have provided support to different countries to help develop the future provision of local operational forensic capability within those countries.
- you have received support from different countries to help develop the future provision of local operational forensic capability within your own country.
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such activity.

Your answer here:

Sharing of Forensic Data

B.4 Does your legislation allow the setting up of national databases (DNA, Fingerprints)?
- Yes □ No □
  If “yes”, please provide details.
  If “no”, please indicate whether any such legislation is planned.

Your answer here:

B.5 Are there any legislation barriers that prevent your Institute from sharing forensic data with other institutes and agencies (either nationally and/or internationally)?
- Yes □ No □
  If "yes", please provide details:

B.6 Are there any policy or procedure barriers that prevent your Institute from sharing forensic data with other institutes and agencies (either nationally and/or internationally)?
- Yes □ No □
  If "yes", please provide details:

B.7 Is your country engaged in any projects/initiatives to facilitate the regular international exchange of forensic data/information or to set up access to forensic data collections?
Please provide details of any such work, indicating the scope of the data being shared and the mechanism of data exchange (e.g. a common database with access by all countries, reciprocal arrangements to search databases in a different country). Please describe any key factors (technical, legal etc) that are helping or hindering such work.

Your answer here:

Prosecutions (Involvement of Forensic Experts)

B.8 Does your legal system accept the following from forensics experts in a different country?
- Yes □ No □ Legal statements
- Yes □ No □ Reports
- Yes □ No □ Verbal evidence

APPENDICES - Page 12
B.9 Please provide any examples of casework situations where:
Forensic experts in your country have provided expert opinion (written statements, courtroom appearances etc.) in a different country to support prosecutions.
and / or
Forensic experts from a different country have provided expert opinion (written statements, courtroom appearances etc.) in your own country to support prosecutions.
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such activities.
Your answer here:

Forensic Support Turned Away
B.10 Please provide any examples of situations where:
you have been involved when your country has offered forensic support to a different country but this offer was turned away?
and / or
you have been involved when a different country has offered forensic support to your country but this offer was turned away?
Please provide general outlines of such relevant situations and describe your understanding of the decisions that were made at the time.
Your answer here:

Cooperation Between Countries (Overview)
B.11 Please use your general background experience and take a broad view of international forensic cooperation to answer this question.
What factors do you believe provide the greatest obstacles to international forensic cooperation in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact)
Your answer here:

B.12 Please use your general background experience and take a broad view of international forensic cooperation to answer this question.
What practical changes and/or initiatives do you believe would have a significant impact to improve the cooperation between countries when using forensic science in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact)
Your answer here:

Forensic Cooperation in the Future
B.13 Would you consider cooperating (giving or receiving assistance) with other forensic science institutes in the future?
Yes ☐ No ☐
If “yes”, please would you consider:
Inside your own country
Yes ☐ No ☐ Setting up a formal cooperation agreement with another Institute
Yes ☐ No ☐ Sending forensic work to another Institute
Yes ☐ No ☐ Using staff from another Institute in your Institute
Yes ☐ No ☐ Sending your staff to work at another Institute
Yes ☐ No ☐ Paying for work or services from another Institute
Yes ☐ No ☐ Using the facilities of another Institute
Outside the borders of your own country
Yes ☐ No ☐ Setting up a formal cooperation agreement with another Institute
Yes ☐ No ☐ Sending forensic work to another Institute
Yes ☐ No ☐ Using staff from another Institute in your Institute
Yes ☐ No ☐ Sending your staff to work at another Institute
Yes ☐ No ☐ Paying for work or services from another Institute
Yes ☐ No ☐ Using the facilities of another Institute

Please comment to help explain your answers to these questions:

END OF PART B
23 APPENDIX TWO  Questionnaire to Chairs of ENFSI Expert Working Groups
EXPLANATORY NOTES

Introduction
The Terrorism-response project team has been successful in its bid to carry out a study for the European Commission into obstacles to cooperation between Europe’s forensic science institutes. The study also addresses the obstacles to cooperation between Europe’s forensic science institutes and their counterparts in third countries outside Europe. The study is concerned with the implications for the fight against crime in general but the emphasis is to be on terrorism. The objectives are to identify the obstacles to cooperation that exist nationally and internationally and to recommend ways in which these can be overcome. For example, ‘cooperation’ might include sharing or searching the data of other institutes, providing facilities such as storage space for other institutes, sending casework to other institutes or seconding forensic experts to another country at a time of need.

The study is very much directed at operational effectiveness and it must therefore also include an assessment of the current level of preparedness of Europe’s institutes to deliver forensic science, in particular as part of the counter-terrorism response. That means assessing the effectiveness of European forensic science as a whole, including the non-ENFSI institutes.

‘Preparedness’ is as much (if not more) to do with management as it is with delivering capabilities. Being able to identify traces of explosives and to recover fingerprints, DNA and data from damaged mobile phones, are important capabilities but having specialist teams who will attend the scene of an explosion or having procedures to handle very large numbers of items or a contingency plan to deal with the welfare of staff during a major incident are just as important. They all contribute to the overall picture of ‘preparedness’.

Preparedness in this context is largely concerned with the response to a terrorist incident but it must also include forensic science in support of operations to gather intelligence or to prevent such an incident occurring.

Where an institute has no experience of counter-terrorism, our surveys on ‘preparedness’ and ‘cooperation’ should be seen as applying to major incidents or major crimes instead. Your answers will be equally valid and useful.

The project team comprises:

Peter de Bruyn, Nederlands Forensisch Instituut (NFI) Netherlands
Helmut Demmelmeyer, Bundeskriminalamt (BKA) Germany
Sean Doyle, Forensic Explosives Laboratory, Dstl (FEL) UK
Richard Gill, Forensic Science Service Ltd. (FSS) UK [Team Leader]
Phil Hicks, Eurojust
José Miguel Otero Soriano, Comisaria General de Policía Científica (CGPC) Spain
Dominique Saint-Dizier, la Police Technique et Scientifique (PTS & INPS) France
Ercan Seyhan, Gendarmerie Forensic Science Department (JKDB) Turkey
Liselotte Sundberg, Statens Kriminaltekniska Laboratorium (SKL) Sweden

Involving the Expert Working Groups
The conclusions and recommendations of this study need to be based on experience and examples and we shall be sending a questionnaire to at least each institute in ENFSI. However, the EWGs may have a different perspective from the institutes and we need more than one view to carry out this study effectively. We are therefore seeking the advice and opinions of the Chairs of the EWGs. In addition, we shall be consulting with experts in various agencies and networks in Europe, Australasia, Central/South America and the USA.

Our questions to you as Chairs of the EWGs are attached. Please give us your personal views as Chair (or, if you are new in your role and feel that you lack the necessary experience, please consult with your predecessor). We appreciate that there are many demands on your time but we have a tight schedule and we therefore ask you to make your response, if possible, within 4 weeks. Please send your returns to Richard Gill richard.gill@fss.pnn.police.uk but contact any member of our project team if you want further information (email addresses for all the team members are given at the foot of page 2). We realise that you may well be suffering from ‘questionnaire fatigue’ but your cooperation will be much appreciated.

There are two sets of questions: Part I on ‘Preparedness’ and Part II on ‘Cooperation’. In terms of ‘Preparedness’ it might help to think of the following areas of work: - Scene, Laboratory, Court and Staff and to consider issues such as: – Health & Safety, Training & Competence, Specialist teams, Quality, Science & Technology, and Management & Contingency planning. In terms of ‘Cooperation’ please think ‘internationally’ as well as ‘nationally’ and ‘legislatively’ as well as ‘operationally’. Please extend your thinking to include your experiences both inside and outside of Europe. There may be significant examples where countries or individual forensic institutes have offered support (or have received support) at times of great need. These situations may have highlighted key obstacles to cooperation gained through practical experience.

Also, please remember that the emphasis is on terrorism i.e. preparedness and cooperation in counter-terrorism. If you think that you have no (or not enough) evidence specific to terrorism when answering a question, please consider it in terms of a major incident or a major crime instead.

Answering the questions
Please answer all the questions. If you have no evidence, then please enter “none” or “no examples”. If you think that a question is not applicable to your EWG please indicate this with “N/A”. Please write as much as you like. The ‘evidence’ that we are looking for will be in the form of examples of your (or your predecessor’s) personal experience, knowledge or awareness.

Confidential information
The information you provide will be treated confidentially. The information will only be used to draw conclusions and neither the Institutes nor the source of the information will be identified, specifically. Our report of this Study will be sent to the EU Commission and they will be free to publish it (with due consideration for security and confidentiality).

Dr. Richard Gill
The Forensic Science Service®
Forensic Science Service Ltd.

Contacts

<table>
<thead>
<tr>
<th>Email Address</th>
<th>Email Address</th>
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<tr>
<td><a href="mailto:p.de.bruyn@nfi.minjus.nl">p.de.bruyn@nfi.minjus.nl</a></td>
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<td><a href="mailto:ercnes@yahoo.com">ercnes@yahoo.com</a></td>
</tr>
<tr>
<td>jmoterodgp.mir.es</td>
<td><a href="mailto:liselotte.sundberg@skl.polisen.se">liselotte.sundberg@skl.polisen.se</a></td>
</tr>
<tr>
<td><a href="mailto:richard.gill@fss.pnn.police.uk">richard.gill@fss.pnn.police.uk</a></td>
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QUESTIONS FOR THE EXPERT WORKING GROUP CHAIRS

EWG .................................................................

Questionnaire No. ......

Part I ‘Preparedness’

Part II ‘Cooperation’

Supported by The European Network of Forensic Science Institutes (ENFSI)

This work is financed by the European Commission
DG Justice, Freedom and Security
Note: In this section we are looking for your opinion. If you do not think that you have any (or not enough) examples specific to terrorism for you to answer a question, please say so and consider the question in terms of a major incident or major crime instead. Please write as much as you like. The cells in the table should expand to accommodate your answers.

**Part I ‘Preparedness’**

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you consider your area of forensic science relevant to counter-terrorism?</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>(tick one)</td>
</tr>
</tbody>
</table>

If you answered “yes” to Q.1, please say in what ways and, if possible, give these levels of importance (high, medium & low).

| How would you describe the level of preparedness in your area of forensic science? | High |
|                                                                                  | Medium |
|                                                                                  | Low |
|                                                                                  | (tick one) |

In your opinion, what proportion of ENFSI forensic science institutes has an adequate level of preparedness?

<table>
<thead>
<tr>
<th>Which institutes would you describe as ‘prepared’?</th>
<th>(Please list – numbers or names)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A numbered list of all 54 ENFSI members is attached. Include non-ENFSI institutes if you wish.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Which institutes would you describe as ‘not prepared’?</th>
<th>(Please list - numbers or names)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A numbered list of all 54 ENFSI members is attached. Include non-ENFSI institutes if you wish.</td>
<td></td>
</tr>
</tbody>
</table>

In your area of forensic science, which of the following do you think need significant improvement?  
For the items selected please indicate their relative levels of importance (high, medium & low).

<table>
<thead>
<tr>
<th>health &amp; Safety</th>
<th>Training &amp; Competence</th>
<th>Deployment of Specialist teams</th>
<th>Quality</th>
<th>Science &amp; Technology</th>
<th>Management &amp; Contingency planning</th>
<th>Other (please list) …</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(tick all that apply)</td>
</tr>
</tbody>
</table>

Which non-ENFSI Institutes are involved in your area of forensic science?  
(Please list)
Note: We are looking for examples of your experience, knowledge or awareness that answer each question. Please write as much as you like. The cells in the table should expand to accommodate your answers.

**Part II ‘Cooperation’**

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of any examples of successful cooperation at the national level? Please list them.</td>
<td></td>
</tr>
<tr>
<td>Are you aware of any examples of successful cooperation at the international level? Please list them.</td>
<td></td>
</tr>
<tr>
<td>Are you aware of anything that has seriously hampered cooperation between forensic science institutes – nationally or internationally? Please give examples.</td>
<td></td>
</tr>
<tr>
<td>Are you aware of anything that has seriously hampered cooperation between forensic science institutes and their ‘customers’ (police, prosecutors and other agencies) – nationally or internationally? Please give examples.</td>
<td></td>
</tr>
<tr>
<td>What changes would you like to see in national or international legislation to improve cooperation? Please list them.</td>
<td></td>
</tr>
<tr>
<td>What changes would you like to see in technology &amp; methodology to improve cooperation? Please list them.</td>
<td></td>
</tr>
<tr>
<td>What changes would you like to see in the communication between forensic institutes to improve cooperation? Please list them.</td>
<td></td>
</tr>
<tr>
<td>Are there any other suggestions that you would like to make to improve cooperation? Please list them.</td>
<td></td>
</tr>
<tr>
<td>Has your EWG carried out any surveys that may be relevant to the current study? If “yes”, please list them.</td>
<td></td>
</tr>
<tr>
<td>Country</td>
<td>Institution</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Austria</td>
<td>Department of Forensic Sciences</td>
</tr>
<tr>
<td>Belgium</td>
<td>Nationaal Instituut voor Criminalistiek en Criminologie</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Research Institute of Forensic Science and Criminology</td>
</tr>
<tr>
<td>Croatia</td>
<td>Centar za Kriminalisticka Vjestacenja &quot;Ivan Vucetic&quot;</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Criminalistic Services</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>Institute of Criminalistics Prague</td>
</tr>
<tr>
<td>Denmark</td>
<td>National Centre of Forensic Science</td>
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<tr>
<td>Estonia</td>
<td>Estonian Forensic Science Institute</td>
</tr>
<tr>
<td>Finland</td>
<td>National Bureau of Investigation Forensic Laboratory (Keskusrikospoliisi,</td>
</tr>
<tr>
<td>France</td>
<td>Institut de Recherche Criminelle de la Gendarmerie Nationale</td>
</tr>
<tr>
<td></td>
<td>Institut National de Police Scientifique</td>
</tr>
<tr>
<td>Germany</td>
<td>Landeskriminalamt Baden-Württemberg, Kriminaltechnisches Institut</td>
</tr>
<tr>
<td></td>
<td>Bundeskriminalamt, Kriminaltechnisches Institut</td>
</tr>
<tr>
<td></td>
<td>Landeskriminalamt Berlin, Kompetenzzentrum Kriminaltechnik</td>
</tr>
<tr>
<td></td>
<td>Landeskriminalamt Nordrhein-Westfalen Kriminalwissenschaftliches und –technisches Institut</td>
</tr>
<tr>
<td></td>
<td>Hessisches Landeskriminalamt Kriminalwissenschaftliches und –technisches Institut</td>
</tr>
<tr>
<td>Greece</td>
<td>Forensic Science Division</td>
</tr>
<tr>
<td>Hungary</td>
<td>Institute for Forensic Sciences</td>
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<tr>
<td>Ireland</td>
<td>Forensic Science Laboratory (Department of Justice, Equality and Law Reform)</td>
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<td>Italy</td>
<td>Forensic Science Police Service</td>
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<td>Raggruppamento Carabinieri Investigazioni Scientifiche</td>
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<td>Latvia</td>
<td>State Forensic Science Bureau</td>
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<tr>
<td>Lithuania</td>
<td>Forensic Science Center of Lithuania</td>
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<td></td>
<td>Lithuanian Police Forensic Science Centre</td>
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<tr>
<td>Netherlands</td>
<td>Netherlands Forensic Institute</td>
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<tr>
<td>Norway</td>
<td>National Criminal Investigation Service Laboratory Division</td>
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<tr>
<td>Poland</td>
<td>Central Forensic Laboratory of the Police</td>
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<tr>
<td>Portugal</td>
<td>Instytut Ekspertyz Sadowych / Institute of Forensic Research</td>
</tr>
<tr>
<td>Romania</td>
<td>Laboratorio de Policia Científica da Policia Judicialia</td>
</tr>
<tr>
<td>Russia</td>
<td>Forensic Science Institute from Romanian General Inspectorate of Police</td>
</tr>
<tr>
<td></td>
<td>National Institute of Forensic Expertise</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Kriminalisticky a Expertizny Ustav Policajnego Zboru</td>
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<tr>
<td>Slovenia</td>
<td>Ministry of Interior Forensic Science Laboratory</td>
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<tr>
<td>Spain</td>
<td>Guardia Civil Servicio De Criminalistica</td>
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<td></td>
<td>Instituto Nacional de Toxicologia y Ciencias Forenses</td>
</tr>
<tr>
<td></td>
<td>Comisionaria General de Policía Científica</td>
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<td></td>
<td>Policía De La Generalitat - Mossos D'esquadra</td>
</tr>
<tr>
<td></td>
<td>Unidad de Policía Científica Division de Policia de lo Criminal ERTZAINZTA</td>
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<tr>
<td>Sweden</td>
<td>National Laboratory of Forensic Science</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Ecole de Sciences Criminelles</td>
</tr>
<tr>
<td></td>
<td>Kantonspolizei Zürich Kriminaltechnische Abteilung</td>
</tr>
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<td></td>
<td>Stadtpolizei Zürich Wissenschaftlicher Dienst</td>
</tr>
<tr>
<td>Turkey</td>
<td>Istanbul Universitesi Adi Tip Enstitüsü</td>
</tr>
<tr>
<td></td>
<td>Kriminal Polis Laboratuarii Dairesi Başkanlığı</td>
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<tr>
<td></td>
<td>Jandarma Genel Komutanları Kriminal Daire Başkanlığı</td>
</tr>
<tr>
<td></td>
<td>The Council of Forensic Medicine (Adli Tip Kurumu)</td>
</tr>
<tr>
<td>Ukraine</td>
<td>State Scientific Research Expertise and Forensic Centre</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>University of Strathclyde Forensic Science Centre</td>
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<td></td>
<td>Forensic Science Northern Ireland</td>
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<tr>
<td></td>
<td>Scottish Police Services Authority – Forensic Services</td>
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<td></td>
<td>Forensic Science Service</td>
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<td>LGC Forensics</td>
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24 APPENDIX THREE  Questionnaire to National Correspondents for Terrorism Matters

(Also used for the Europol Liaison Bureaus)
A European Commission sponsored study is currently underway with the objective of providing a comprehensive overview and insight into the obstacles that inhibit European forensic laboratories sharing forensic information in support of law enforcement investigations and subsequent prosecutions. The study also addresses the obstacles to cooperation between Europe's forensic science laboratories and their counterparts in third countries outside Europe.

The main focus of the study is the effectiveness of the overall response against terrorist attacks. The objectives are to identify the obstacles to cooperation that exist nationally and internationally and to recommend ways in which these can be overcome. For example, forensic 'cooperation' might include the sharing or searching of forensic data between laboratories, or the provision of practical support to another laboratory at a time of need (e.g. in the immediate aftermath of a major terrorist incident when local forensic resources are overwhelmed). Such practical support might involve the transfer of exhibits to another laboratory for forensic examination or, alternatively, the secondment of forensic experts to the original laboratory to perform examinations. Such mutual support might occur between laboratories within a given country or might occur between countries.

Although the focus of the study is terrorism, insights to forensic cooperation gained through experiences in other spheres, beyond terrorism, may also be relevant. These might include the investigation and prosecution of other major crimes or even the cooperation between countries following a major emergency (e.g. a large scale natural disaster where forensic science plays a significant part in victim identification).

Clearly, some obstacles to cooperation are technical or otherwise rest within the management of the forensic laboratories. Nevertheless, there are many other factors that might hinder cooperation in the area of forensic science. Of particular interest are the obstacles, limiting factors and gaps (often relating to legal matters) that exist at the interfaces between the forensic laboratories and:

- the agencies investigating the terrorist crime (police, security services etc.)
- the authorities involved with the prosecution of terrorist crime (prosecutors, courts etc.)

These factors may become particularly prevalent when the potential cooperation involves different countries. Further, when looking at this area there may be differences in legislation relating to the sharing of forensic information for intelligence purposes during a criminal investigation in contrast to the use of forensic information in a courtroom (in a different country, say) to support a prosecution.

_The following questions are designed to gather information from the perspective of investigators and prosecutors working in the area of terrorist crime. They point towards changes that might improve the cooperation between the various agencies in the use of forensic science in their fight against such criminality._

**QUESTIONS**

**Inside Your Own Country**

a) What kinds of cooperation already exist between the various agencies operating inside your own country that use forensic science in the fight against terrorist crime? (Please list indicating their relative importance and impact)
b) What changes do you believe would have the greatest impact to improve the cooperation between the various agencies operating inside your own country that use forensic science in the fight against terrorist crime? (Please list indicating their relative importance and impact)

National Plan

Does your country have a “National Plan” in the event of a major terrorist incident? If yes, does that “National Plan” include a specific part dealing with the provision of forensic science services and are you aware whether this forensic plan has ever been specifically tested as part of a major emergency exercise?

Cooperation Between Countries

What changes do you believe would have the greatest impact to improve the cooperation between the various agencies operating between countries when using forensic science in the fight against terrorist crime? (Please list in your order of priority reflecting their relative importance and potential impact)

Experience of “Forensic Cooperation”

Do you have any examples of casework situations where:

you have needed to make requests for forensic information from different countries?

and / or

you have received requests for forensic information from different countries?

Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such requests.

8 Feb 2008
25 APPENDIX FOUR  Questions for Countries Outside of Europe & International Forensic Bodies
Forensic Cooperation and Information Sharing

International Obstacles to Cooperation

QUESTIONS TO COLLECT EVIDENCE FOR THE STUDY

This Work is Financed by the European Commission
DG Justice, Freedom and Security

Supported by The European Network of Forensic Science Institutes (ENFSI)

Supported by EUROJUST
INTRODUCTION

Study on Obstacles to Cooperation and Information-sharing among Forensic Science Laboratories and other Relevant Bodies of Different Member States and between these and Counterparts in Third Countries.  [A study sponsored by the European Commission – Contract No. JLS/D1/2007/025]

A contract with the European Commission (EC) has been secured to deliver a study on forensic cooperation. The contract runs for one year from 20 Dec 2007. The study is being conducted by a senior team drawn from the European Network of Forensic Science Institutes (ENFSI) along with a representative from Eurojust. The ENFSI members represent France, Germany, The Netherlands, Spain, Sweden, Turkey and the UK. The study is being led by The Forensic Science Service (UK).

The objective of the study is to provide a comprehensive overview and insight into the obstacles (gaps, limiting factors etc.) that inhibit European forensic laboratories sharing forensic information and working together in support of law enforcement investigations and subsequent prosecutions. The key objectives are to identify the obstacles to cooperation that exist nationally and internationally and to recommend ways in which these can be overcome.

Although, the study focuses on Europe, the study team fully recognises that the “obstacles to forensic cooperation” have no geographical boundaries. In this respect the study team is keen to learn from the experiences gained anywhere in the world, where countries have worked together in forensic areas.

GUIDANCE NOTES

The current questions are designed to collect evidence about the experiences gained through “practical examples of international forensic cooperation” anywhere in the world. Many of the questions are deliberately “broad” and “open” to provide you with the widest opportunity to share your practical experiences of forensic cooperation. Please feel free to provide as much information as possible and as many examples as you can. At this stage of our study we want to produce the longest possible list of factors that are known to help or hinder forensic cooperation.

In many circumstances the cooperation may be on a mutual basis (eg the reciprocal sharing of forensic information). In other instances a country may be the recipient or the provider of forensic support. The study looks to identify the “obstacles to cooperation” that have been experienced and to list the “key learning points” (good or bad) that have arisen from such experiences (what worked, what didn’t work and why?). Further, the study seeks views on future changes and/or initiatives that might improve future international cooperation in forensic matters.

When answering the questions please provide specific examples to back up your observations wherever possible.

The following notes are designed to provide a general framework for stimulating thought around the diverse areas of forensic cooperation (and the associated obstacles). Nevertheless, the notes are not meant to be prescriptive and should not be allowed to hinder your own original approaches when addressing this complex topic.

International Forensic Cooperation

The application of forensic science can cover a very wide range of areas including:

Investigations to identify the criminals involved in a major crime or terrorism incident. The identification of victims following a terrorist incident or a large scale natural disaster. Contributions to intelligence gathering to pursue criminals and to prevent criminal acts. Support to the prosecution of major crime and terrorism.
Please consider all areas of forensic cooperation when thinking about your responses to the current questions. The insights gained and the lessons learned through experiences in all areas of criminality (major crime, organised crime, terrorism etc.) are all equally valuable. Furthermore, experiences gained through the application of forensic science in the aftermath of a large scale natural disaster will be very relevant.

Types to Cooperation

There are a wide range of circumstances in which countries might cooperate in forensic matters. Examples can include:

Support provided to other countries to ensure that forensic laboratories and legal systems are prepared for future forensic incidents/events/cases. This might involve the training of staff, the sharing of expertise and experience, support to quality systems or the set up of forensic facilities.

The sharing or joint searching of forensic data collections held in different countries. This might include common databases shared across computer networks. Alternatively, it might involve agreed procedures by which databases can be accessed by other countries. In addition to electronic databases, ‘data collections’ might include physical collections of materials of forensic interest.

The provision of practical operational support to another country/laboratory at a time of need (e.g. in the immediate aftermath of a major terrorist incident when local forensic resources are overwhelmed). Such practical support might involve the transfer of exhibits to a laboratory in a different country for forensic examination or, alternatively, the secondment of forensic experts to a laboratory in the original country to perform the examinations.

Following the provision of practical support to another country the forensic scientists involved with the casework examination of the items originating from the requesting country may be required to contribute to the legal processes within the second country (e.g. the provision of ‘expert opinion’, the drafting of legal reports, the delivery of verbal testimony in a courtroom during a prosecution).

Obstacles to Cooperation

There are a wide range of matters that can hinder the forensic cooperation between different countries. These include factors that are directly influenced or controlled by the forensic laboratories/institutes that carry out the forensic examinations. Some are technical matters relating to the scientific methods being used (e.g. the compatibility of data) but others relate to the management of the forensic laboratories and their staff resources (e.g. the ability/willingness to release staff for overseas work).

In addition, there are other potential obstacles to forensic cooperation (often legal matters) that can occur between countries. In these instances other agencies can be involved as well as the forensic laboratories:

the agencies investigating crime (police, security services etc.)

the authorities involved with the prosecution of crime (prosecutors, courts etc.)

Thus, there are many different agencies involved in achieving effective “forensic cooperation” both within a given country and across international borders – the forensic laboratories, the investigation agencies, the prosecution agencies and the courts. Further, there are some existing international agencies that can facilitate forensic cooperation in some areas (e.g. Interpol, Europol, Eurojust).
Consequently, there are many different contact points and interfaces between these various agencies where forensic data and/or forensic opinion is discussed, exchanged and utilised. It is the potential obstacles at these numerous complex interfaces that determine the overall effectiveness of forensic cooperation. Thus, in helping to understand the obstacles to international forensic cooperation it is valuable to recognise:

**WHAT?** - the exact nature of the “forensic information” involved in the cooperation. This might include:

- **raw forensic data** (arising from a specific forensic casework examination).
- **expert forensic opinion** (arising from the interpretation of the results from a specific casework examination).
- **forensic data collection** (an electronic database or a physical collection used to support the future interpretation of forensic casework results).
- **forensic know-how** (expertise and experience related to forensic matters).

**WHY?** - the reason for the desired cooperation (e.g. access to “expert forensic opinion” for a specific case to provide intelligence to support an international investigation, the use of “raw casework forensic data” to create a shared national or international forensic data collection).

**WHO?** - the agencies involved at the interface where cooperation is desired (between forensic laboratories, between investigation agencies, between a forensic laboratory and an investigation or prosecution agency etc.).

In order for your replies to have the greatest value, please provide as much information as you can when answering the questions. The study is seeking to identify the KEY LEARNING POINTS that have arisen from OPERATIONAL EXAMPLES AND PRACTICAL EXPERIENCE where forensic cooperation and information sharing have been successful (or could have been more successful, or were hindered by significant obstacles). Ideas for changes and/or initiatives that might improve future cooperation are particularly welcome.
## QUESTIONS TO COLLECT EVIDENCE FOR THE STUDY

### Exchange of Forensic Information Between Different Countries

| Q1 | Please provide any examples of casework situations where:  
you have been involved when your country has needed to request forensic information from a different country.  
and / or  
you have been involved when a request has been received for forensic information from a different country.  
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such requests. |

### Operational Forensic Support Across International Borders

| Q2 | Please provide any examples of casework situations where:  
you have provided operational forensic casework support to a different country at a time of need.  
and / or  
you have received operational forensic casework support from a different country at a time of need.  
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such work. |

### Preparedness (Support to Help Develop Local Operational Capability)

| Q3 | Please provide any examples of situations where:  
you have provided support to different countries to help develop the future provision of local operational forensic capability within those countries.  
and / or  
you have received support from different countries to help develop the future provision of local operational forensic capability within your own country.  
Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such activity. |

### Regular Sharing of Forensic Data

| Q4 | Is your country engaged in any projects/initiatives to facilitate the regular international exchange of forensic data/information or to set up access to forensic data collections?  
Please provide details of any such work, indicating the scope of the data being shared and the mechanism of data exchange (e.g. a common database with access by all countries, reciprocal arrangements to search databases in a different country). Please describe any key factors (technical, legal etc.) that are helping or hindering such work. |
### Prosecutions (Involvement of Forensic Experts)

| Q5 | Please provide any examples of casework situations where: Forensic experts in your country have provided expert opinion (written statements, courtroom appearances etc.) in a different country to support prosecutions. and/or Forensic experts from a different country have provided expert opinion (written statements, courtroom appearances etc.) in your own country to support prosecutions. Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such activities. |

### Forensic Support Turned Away

| Q6 | Please provide any examples of situations where: you have been involved when your country has offered forensic support to a different country but this offer was turned away. and/or you have been involved when a different country has offered forensic support to your country but this offer was turned away. Please provide general outlines of such relevant situations and describe your understanding of the decisions that were made at the time. |

### Cooperation Between Countries (Overview)

| Q7 | Please use your general background experience and take a broad view of international forensic cooperation to answer this question. What factors do you believe provide the greatest obstacles to international forensic cooperation in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact) |

| Q8 | Please use your general background experience and take a broad view of international forensic cooperation to answer this question. What practical changes and/or initiatives do you believe would have a significant impact to improve the cooperation between countries when using forensic science in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact) |

### CONFIDENTIALITY

The information that you provide will be treated in confidence. The information will only be used to draw general conclusions and the specific sources will not be identified. The report arising from the study will be submitted to the European Commission (EC) - DG Justice, Freedom and Security and the EC will be free to publish the contents (with due consideration to all security and confidentiality matters).

**THANK YOU FOR GIVING YOUR TIME TO ANSWER THE QUESTIONS**
26 APPENDIX FIVE  Initial Questioning Themes with Europol & Interpol
Initial Questioning Themes with Europol and Interpol

From the perspective of Europol (or Interpol) does the initial working model for forensic cooperation developed by the study team capture the reality of the complex forensic world?

What international databases (containing forensic data) already exist?

What agreements are in place by which national forensic databases can be “accessed” by a different country?

Does Europol see its role as continuing to expand this European custodianship for forensic databases?

or

Does Interpol see its role as continuing to expand the international custodianship for forensic databases?

What are the processes by which a given country can request and receive forensic information from a different country?

What difficulties are encountered, if any, in requesting and sharing forensic data effectively? How might these difficulties be overcome?

Are there differences in the principles by which “forensic expert opinion” is exchanged between different countries when compared with the ways that “forensic data” is exchanged?

What proposals for new legislation or new databases are on the horizon that will change the way that things are currently done?

What role does Europol (or Interpol) play in the provision of technical support and training in forensic matters?
27 APPENDIX SIX  Meetings Attended by Study Team Members
Study Team Meetings

<table>
<thead>
<tr>
<th>Host / Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands Forensic Institute (The Hague)</td>
<td>21-22 January 2008</td>
</tr>
<tr>
<td>Comisaria General De Policia Cientifica (Madrid, Spain)</td>
<td>21-23 April 2008</td>
</tr>
<tr>
<td>Gendarmarie General Command Forensics</td>
<td>3-5 September 2008</td>
</tr>
<tr>
<td>Department (Ankara, Turkey)</td>
<td></td>
</tr>
<tr>
<td>BKA (Wiesbaden, Germany)</td>
<td>13-14 October 2008</td>
</tr>
<tr>
<td>Direction Centrale de la Police Judiciaire (Lyon, France)</td>
<td>24-26 November 2008</td>
</tr>
</tbody>
</table>

Other Relevant Conferences attended by Team Members

<table>
<thead>
<tr>
<th>Conference</th>
<th>Date</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Krakow, Poland)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding the Picture (ACPO Counter Terrorism Conference - Brighton, UK)</td>
<td>25-27 February 2008</td>
<td>Richard Gill attended as a delegate.</td>
</tr>
<tr>
<td>European Serious Organised Crime Conference – Common Understanding, Common Threat, Common Response (Liverpool, UK)</td>
<td>4-6 March 2008</td>
<td>Richard Gill attended as a delegate.</td>
</tr>
<tr>
<td>Tactical Meeting on Terrorism - Exchange and Sharing of Practical Experiences (Eurojust, Den Haag, The Netherlands)</td>
<td>10-11 April 2008</td>
<td>Phil Hicks attended as a delegate.</td>
</tr>
<tr>
<td>ENFSI Annual Meeting of Directors (Rome, Italy)</td>
<td>13-16 May 2008</td>
<td>Dominique Saint-Dizier and José Miguel Otero Soriano attended the full meeting. Richard Gill attended on 13-14 May 2008 and delivered a presentation to raise the awareness of the EC Study and thereby seek support from the Institute Directors.</td>
</tr>
<tr>
<td>Explosives Expert Working Group (EWG) Meeting (Cyprus)</td>
<td>14-16 May 2008</td>
<td>Sean Doyle attended as a EWG member and delivered a presentation that included the background to the current</td>
</tr>
<tr>
<td>Event</td>
<td>Date</td>
<td>Participant</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-----------------------</td>
<td>----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The Academia Iberoamericana de Criminalistica y Estudios Forenses (ACIF) Annual Meeting of Directors (Guatemala)</td>
<td>28-29 May 2008</td>
<td>José Miguel Otero Soriano attended as a delegate.</td>
</tr>
<tr>
<td>EU CBRN Taskforce (Bio Subgroup) &quot;Detection &amp; Diagnosis Workshop&quot; (Brussels, Belgium)</td>
<td>19-20 June 2008</td>
<td>Peter de Bruyn attended as a delegate.</td>
</tr>
<tr>
<td>Safeguarding the Use of Expert Evidence in the EU (The Law Society, London, UK)</td>
<td>23 September 2008</td>
<td>Sean Doyle and Phil Hicks attended as delegates.</td>
</tr>
<tr>
<td>EU / French Presidency Seminar on “Scientific Proof in Criminal Justice” (Lyon, France)</td>
<td>15-16 October 2008</td>
<td>Dominique Saint-Dizier and Phil Hicks attended as delegates. In addition, Dominique Saint-Dizier was the moderator for a workshop on “technical standards, laboratory management and status of experts: the condition of European cooperation”.</td>
</tr>
<tr>
<td>ENFSI Quality and Competence Liaison Group (QCLG) Meeting – Validation (Riga, Latvia)</td>
<td>23-24 October 2008</td>
<td>Sean Doyle attended as a delegate.</td>
</tr>
<tr>
<td>Interpol's First Crisis and Major Events Conference (Lyon, France)</td>
<td>28-29 October 2008</td>
<td>Richard Gill delivered a presentation entitled “The European Commission Study on the Obstacles to Forensic Cooperation”.</td>
</tr>
<tr>
<td>ENFSI Two Day One Topic Seminar on “Quality Assurance for the Investigation at the Scene of Crime (Copenhagen, Denmark)</td>
<td>3-4 November 2008</td>
<td>Dominique Saint-Dizier attended as a delegate.</td>
</tr>
<tr>
<td>EU CBRN Taskforce (Chem Subgroup) &quot;Response Workshop&quot; (Brussels, Belgium)</td>
<td>11 November 2008</td>
<td>Peter de Bruyn attended as a delegate.</td>
</tr>
</tbody>
</table>
28 APPENDIX SEVEN  Forensic Science in the EU Legal Framework
Forensic Science in the EU legal framework

This Appendix contains the results from a survey of EU regulations that mention forensic science. Other EU working documents discussing forensic matters are included. Some Council of Europe, although not EU documents, are also mentioned.

Treaty of Amsterdam (2 October 1997)

Forensic research is mentioned in the article K.2 (article 30 under the new numbering) of Title VI “Provisions on police and judicial cooperation in criminal matters”:

“Common action in the field of police cooperation shall include:
… (c) cooperation and joint initiatives in training, the exchange of liaison officers, secondments, the use of equipment, and forensic research;…”

Europol Convention / Europol Council Decision

Forensic research also appears in the Europol convention under the article 3.3:
“In the context of its objective under Article 2(1), Europol may, in addition, in accordance with the staffing and budgetary resources at its disposal and within the limits set by the Management Board, assist Member States through advice and research in particular in the following areas:
… 4) technical and forensic police methods and investigative procedures. ”

This paragraph is repeated in the Europol Council Decision, under article 5.4, with 2 additions (in bold):
“Additionally, in the context of its objective under Article 3, Europol may, in accordance with the staffing and budgetary resources at its disposal and within the limits set by the Management Board, assist Member States through support, advice and research in the following areas:
… (d) technical and forensic methods and analysis, and investigative procedures.”

It is worth mentioning that the article 12 of the ECD on the content of the Europol Information System, clearly allows the storage of DNA profiles (this was not the case in the Europol Convention):
“Data relating to the persons referred to in paragraph 1 may include only the following particulars:
… (g) where necessary, other characteristics likely to assist in identification, including any specific objective physical characteristics not subject to change such as dactyloscopic data and DNA profile (established from the non-coding part of DNA).”

Council Act of 3 November 1998 adopting rules applicable to Europol analysis files

The article 6 of this Council Act describes the personal data that can be stored in a work file for the purpose of analysis. Identification means are listed under art.6.2.c and include:
“Forensic identification information such as fingerprints, DNA evaluation results (to the extent necessary for identification purposes and without information characterising personality), voice profile, blood group, dental information.”

The § 2.1.5.1 on investigative techniques acknowledges the efficiency of DNA databases in solving crimes:
“... In recent years some Member States have achieved impressive successes in solving crimes more quickly, or at all, with the help of national DNA data bases which they have been building up. The Union's capacity to solve crimes better and more efficiently would be greatly strengthened if such databases were set up in all Member States. Care should be taken that national and EU data protection legislation are fully respected. The Union's crime solving capacity would be enhanced further if Member States' law-enforcement services were able to compare DNA profiles.”

The § 2.1.5.2 provides the only definition of forensic science in EU texts:

“Forensic science refers to the examination of crime scenes, recovery of material evidence, laboratory examinations, interpretation of findings and presentation of the conclusions for intelligence and investigation purposes, or as evidence in court. The various fields of forensic expertise include for example toxicology, serology and DNA profiling, trace evidence (e.g. fire debris, glass, paint, gunshot residues), firearms and ballistics, handwriting and document examination, fingerprints, marks and impressions (e.g. tool marks, shoe prints), audio, video and computer analysis, accident investigation, crime scene investigation and forensic pathology.

The final aim of these activities is to contribute to the truth-finding process in criminal cases. It is therefore essential that forensic investigations have a very high quality and are performed by an independent, impartial and integer person.”

Considerations on Quality Assurance are made, including the recommendation towards ISO17025 accreditation of laboratories:

“In most countries, including the EU Member States, only few formal requirements regarding quality standards apply to forensic laboratories. This contrasts sharply with the situation in the food and beverages sector, the control of meat, the admission of new medicines, drinking water, etc. In all these areas formal bodies are responsible for verifying that standards of quality are upheld so that the results of laboratory tests are beyond any reasonable doubt and can be accepted as the basis for usually far-reaching decisions.

A first essential step to improve the quality level of forensic laboratories in the EU is to demand concrete quality requirements. Since the 1980s a generally accepted way to improve the quality of a given laboratory is to demand a generally recognised standard as the basis of its quality-assurance system. Such standards have existed for many years and comprise all technical and organisational aspects which are necessary to guarantee a certain minimum level of quality. The standards which are recommended for the forensic science laboratories are NEN-EN-ISO/IEC 17025, a standard which is not specific for forensic laboratories, and ILAC-G19:2002, which explains 17025 with reference to forensic laboratories. Such an approach is far more efficient and effective than a rigid harmonisation of methods.”

Under §2.3, “Creating a common culture, common instruments and methods”, the Commission stated that:

“It is important that all Member States build up DNA data bases which are effective and efficient tools in solving crimes. A system should be developed to enable member States to check if DNA found on their territory matches that found in other Member States.”

And

“The subject of forensic science has not been dealt with structurally in the Union thus far. A first priority would seem to be raising the quality level of the forensic laboratories of the EU Member States by requiring them to introduce quality assurance systems based on a generally recognised standard. The Commission also invites the relevant Council working parties to re-examine the question of the European Network of Forensic Science Institutes’ (ENFSI) role in EU cooperation in this area.”

In the § 2.4 on Counter terrorism:

“In the aftermath of the terrorist attacks in Madrid on 11 March 2004, a number of measures were agreed by the Council with the aim of improving counter-terrorism cooperation in the EU. Some of these regard aspects of actual operational cooperation between law-enforcement services, such as improving controls and traceability of firearms and explosives, the possibilities of establishing an EU database on forensic material, facilitating cross-border hot pursuit, and simplifying the exchange of information and intelligence between law-enforcement services of the Member States.”
Council Resolutions on the exchange of DNA analysis results

The Council of the EU published a first resolution on the exchange of DNA analysis results on 9 June 1997. It invited the Member States to establish national DNA databases in accordance with common standards and in compatible manner with a view to exchange DNA analysis results between member states. It also urged that there should be further study of a system for information exchange (an appropriate role for Europol was to be considered). The Council resolution of 20 May 2001 acknowledged the existence of the European Set of Standards and made further proposals for exchanging DNA analysis results. Exchange of DNA data should be limited to DNA markers giving no information on specific hereditary characteristics.

Council Resolution 30 March 2004 regarding guidelines for taking samples of seized drugs

This Resolution recognised that the collection, analysis, and dissemination of objective, reliable and comparable data on the drugs phenomenon should be assured, as laid down in the European Union Action Plan on Drugs. It urges member states to develop guidelines for sampling confiscated illicit drugs, and recommends that member states introduce a system of taking samples according to internationally accepted guidelines. Member states are encouraged to consider ENFSI guidelines on representative drug sampling as a basis for the procedure.

Council Decision on the Transmission of samples of controlled substances (28 May 2001)

This Decision establishes a system for the lawful transmission of samples of controlled substances between National Contact Points of Member States. The use of the sample within the receiving Member State shall be agreed between the sending and receiving Member States, it being understood that samples can be used for detection, investigation and prosecution of criminal offences or for the forensic analysis of samples.


The EU Council took the decision on 12 June 2007 to transpose the Treaty of Prüm into the EU framework. Two Council Decisions have been published in August 2008: the first one is the transposition of the Treaty itself, the second one is the transposition of the implementation agreements of the Treaty. These Council Decisions regulate the exchange of DNA and fingerprints data by allowing Member States to directly query, on a hit/no hit basis, “reference data” contained in the other EU member states databases, via their respective National Contact Points.

Council of Europe Recommendation on the use of DNA within the framework of the Criminal Justice system (1992)

This Recommendation applies to the collection of samples and use of DNA analysis for the purposes of the identification of a suspect or any other individual within the framework of the investigation and prosecution of criminal offences. Included are recommendations on the use of samples and information, on the taking of samples, on the recourse to DNA analysis, on data protection, on the storage of samples and data, on the equality of arms, on technical standards. It recommends the implementation of quality assurance requirements. It also recommends that transborder exchange of DNA data is only carried out between states that comply with this recommendation.
Council of Europe Recommendation on medico-legal autopsy rules (1999)

The Council of Europe recommends that autopsy should be carried out in all obvious or suspected unnatural death. The recommendation contains principles and rules that are proposed to the states.
APPENDIX EIGHT  Results Summary (ENFSI Director Questionnaires)
**RESULTS SUMMARY**

**ENFSI DIRECTOR QUESTIONNAIRES**
(39 Responses Received)

This Appendix contains the questions from the ENFSI Director Questionnaire. Wherever appropriate the responses from the 39 respondents have been summarised alongside the questions (white on red).

### PART A QUESTIONS

**SURVEY OF CURRENT PREPAREDNESS WITHIN YOUR ENFSI INSTITUTE**

**About Your Forensic Institute**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1</td>
<td>Please give the full name of your Forensic Institute:</td>
</tr>
<tr>
<td>A.2</td>
<td>Does your Forensic Institute have more than one geographical location? Yes 20 No 19</td>
</tr>
<tr>
<td></td>
<td>If yes, please provide details (including whether all capabilities are delivered from all locations):</td>
</tr>
<tr>
<td>A.3</td>
<td>How many staff do you have, in total? 45 – 2431 (average = 332)</td>
</tr>
<tr>
<td>A.4</td>
<td>What is the status of your Forensic Institute? (select all those that apply)</td>
</tr>
<tr>
<td></td>
<td>Private 1</td>
</tr>
<tr>
<td></td>
<td>Government (Please indicate which Ministry) 37</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details) 1</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
</tr>
<tr>
<td>A.5</td>
<td>What is the mandate or scope of your Institute? (select those that apply)</td>
</tr>
<tr>
<td></td>
<td>All crime 35</td>
</tr>
<tr>
<td></td>
<td>Specific crimes only (Please provide details) 3</td>
</tr>
<tr>
<td></td>
<td>National security 3</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details) 3</td>
</tr>
<tr>
<td></td>
<td>Please provide further details, if appropriate:</td>
</tr>
</tbody>
</table>

**Experience of Terrorist Incidents**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.6</td>
<td>Does your Forensic Institute have any experience of responding to terrorist bomb incidents? Yes 22 No 13</td>
</tr>
<tr>
<td></td>
<td>If yes, please provide details (including the number of incidents since January 2003):</td>
</tr>
<tr>
<td>A.7</td>
<td>Do any non-ENFSI forensic providers deliver forensic services for terrorist incidents within your country? Yes 11 No 22</td>
</tr>
<tr>
<td></td>
<td>If yes, please provide details and examples, as appropriate:</td>
</tr>
</tbody>
</table>

**Terrorist Incidents (Scene Examination)**

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.8</td>
<td>Who would direct forensic science examinations at terrorist scenes? (select one or more)</td>
</tr>
<tr>
<td></td>
<td>Police 30</td>
</tr>
<tr>
<td></td>
<td>Prosecutor 24</td>
</tr>
<tr>
<td></td>
<td>Judge / Magistrate 6</td>
</tr>
<tr>
<td></td>
<td>Security Services 6</td>
</tr>
<tr>
<td></td>
<td>Military 5</td>
</tr>
<tr>
<td></td>
<td>Your Forensic Institute 21</td>
</tr>
<tr>
<td></td>
<td>Other (Please provide details) 0</td>
</tr>
<tr>
<td></td>
<td>Please explain multiple selections:</td>
</tr>
<tr>
<td>A.9</td>
<td>Would your Forensic Institute send staff to the scene of a terrorist incident? Yes 33 No 5</td>
</tr>
<tr>
<td></td>
<td>If &quot;yes&quot;, does your Forensic Institute have dedicated teams of experts who will attend to deal with:</td>
</tr>
<tr>
<td></td>
<td>post bomb explosion scenes? Yes 28 No 6</td>
</tr>
</tbody>
</table>
the identification of victims?  
Yes 24  No 9

Chemical, Biological, Radiological, Nuclear (CBRN) incidents?  
Yes 11  No 20

Please provide further details, if appropriate:

A.10 Would your Forensic Institute send a scientist to advise the investigators?  
Yes 31  No 7
If yes, please provide details:

A.11 If your Forensic Institute would not send staff to the scene, what other forensic providers would attend?  
Please provide details:

A.12 What capabilities could your Forensic Institute deploy at the scene?  (select all those that apply)

<table>
<thead>
<tr>
<th>No.</th>
<th>Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>Searching</td>
</tr>
<tr>
<td>32</td>
<td>Recovering Items for Submission to the Laboratory</td>
</tr>
<tr>
<td>33</td>
<td>Sampling</td>
</tr>
<tr>
<td>27</td>
<td>Developing Fingerprints</td>
</tr>
<tr>
<td>21</td>
<td>Detection of Explosives</td>
</tr>
<tr>
<td>25</td>
<td>Technical Examination of Post Blast Materials</td>
</tr>
<tr>
<td>11</td>
<td>Testing for Other Hazardous Materials</td>
</tr>
<tr>
<td>13</td>
<td>Other</td>
</tr>
</tbody>
</table>

A.13 Are Bomb Disposal Teams deployed by your Forensic Institute?  
Yes 7  No 31
If yes, please provide details:

A.14 Do you have a major-incident plan for scene attendance?  
Yes 19  No 19
If "yes" does it include:

<table>
<thead>
<tr>
<th>No.</th>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>call out arrangements (24 hours / 7 days) for key members of staff?</td>
</tr>
<tr>
<td>13</td>
<td>shift working arrangements?</td>
</tr>
<tr>
<td>10</td>
<td>accommodation arrangements for staff?</td>
</tr>
<tr>
<td>15</td>
<td>late / early travel arrangements for staff?</td>
</tr>
<tr>
<td>13</td>
<td>generic risk assessments?</td>
</tr>
<tr>
<td>7</td>
<td>other support?</td>
</tr>
</tbody>
</table>

A.15 Do you have a rapid (or special) scene examination team?  
Yes 22  No 10
If "yes", please provide details:

**Terrorist Incidents (Management of Staff & Resources at the Laboratory)**

A.16 Do you have a major-incident plan for laboratory work?  
Yes 18  No 20
If "yes" does it include:

<table>
<thead>
<tr>
<th>No.</th>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>16</td>
<td>call out arrangements (24 hours / 7 days) for key members of staff?</td>
</tr>
<tr>
<td>11</td>
<td>shift working arrangements?</td>
</tr>
<tr>
<td>10</td>
<td>accommodation arrangements for staff?</td>
</tr>
<tr>
<td>11</td>
<td>late / early travel arrangements for staff?</td>
</tr>
<tr>
<td>11</td>
<td>generic risk assessments?</td>
</tr>
<tr>
<td>4</td>
<td>other support?</td>
</tr>
</tbody>
</table>

A.17 Do you have a rapid (or special) laboratory team?  
Yes 16  No 22
If "yes", please provide details:

**Terrorist Incidents (Urgent Handling of Large Numbers of Exhibits)**

A.18 Do you have procedures for the urgent handling of large numbers of exhibits?  
Yes 15  No 23
If "yes", have the procedures been tested:

<table>
<thead>
<tr>
<th>No.</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>real incidents</td>
</tr>
<tr>
<td>2</td>
<td>simulations</td>
</tr>
</tbody>
</table>

Please provide further details, as appropriate:

A.19 In the event of a terrorist incident, are you confident that you have enough trained staff?  
Yes 21  No 14

<table>
<thead>
<tr>
<th>No.</th>
<th>Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>space for storage</td>
</tr>
<tr>
<td>22</td>
<td>space for examinations</td>
</tr>
<tr>
<td>24</td>
<td>equipment &amp; consumables</td>
</tr>
</tbody>
</table>

Please provide further details, as appropriate:
### A.20
In the event of a terrorist incident, are you confident that ....

- your continuity procedures are effective? Yes 28 No 9
- your anti-contamination procedures are effective? Yes 22 No 14

Please provide further details, as appropriate:

### A.21
If the capacity of your Forensic institute is exceeded as a result of your response to a terrorist incident, are any contingency plans in place? Yes 11 No 23

If yes, please provide details:

### Terrorist Incidents (Liaison)

#### A.22
After a terrorist incident who decides what forensic examinations take place? (select one or explain multiple selections)

- Police 27
- Prosecutor 21
- Judge / Magistrate 13
- Security Services 4
- Military 4
- Your Forensic Institute 19
- Other (Please provide details): 0

Please explain multiple selections:

#### A.23
How does your Forensic Institute liaise with the person/body identified in Question A.22 (above)?

- Not Applicable 1
- One Nominated Scientist 16
- Several Senior Scientists 11
- Any Scientist Involved 9
- Other (Please provide details): 9

Please provide further details, as appropriate:

#### A.24
Do you have a secure means of communication? Yes 25 No 13

If yes, please provide details:

#### A.25
Does your Institute engage in counter-terrorist exercises organised within your country? Organising such exercises? Yes 7 No 30
Participating in such exercises? Yes 15 No 22

If “yes” to either or both questions then please provide details:

### Forensic Databases

#### A.26
What access does your Institute have to Forensic Databases that have a relevance to Counter-Terrorism work? Please list:

### Further Comments

#### A.27
Please add further comments about the “preparedness” of your Forensic Institute if these points have not been covered by the preceding questions.

Your answer here:

### END OF PART A

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### PART B QUESTIONS

### NATIONAL / EUROPEAN / INTERNATIONAL FORENSIC COOPERATION

#### Exchange of Forensic Information Between Different Countries

#### B.1
Please provide any examples of casework situations where:

- you have been involved when your country has needed to request forensic information from a different country? Yes 18 No 10
- and / or
- you have been involved when a request has been received for forensic information from a different country? Yes 20 No 9

Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such requests.

Your answer here:
### Operational Forensic Support Across International Borders

**B.2** Please provide any examples of casework situations where:
- you have provided operational forensic casework support to a different country at a time of need
  - Yes 19
  - No 12
- and / or
- you have received operational forensic casework support from a different country at a time of need
  - Yes 19
  - No 12

Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such work.

Your answer here:

### Preparedness (Support to Help Develop Local Operational Capability)

**B.3** Please provide any examples of situations where:
- you have provided support to different countries to help develop the future provision of local operational forensic capability within those countries.
  - Yes 19
  - No 10
- and / or
- you have received support from different countries to help develop the future provision of local operational forensic capability within your own country.
  - Yes 8
  - No 12

Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered such activity.

Your answer here:

### Sharing of Forensic Data

**B.4** Does your legislation allow the setting up of national databases (DNA, Fingerprints)?

- Yes 33
- No 2

If “yes”, please provide details.

If “no”, please indicate whether any such legislation is planned.

Your answer here:

**B.5** Are there any legislation barriers that prevent your Institute from sharing forensic data with other institutes and agencies (either nationally and/or internationally)?

- Yes 18
- No 16

If “yes”, please provide details:

**B.6** Are there any policy or procedure barriers that prevent your Institute from sharing forensic data with other institutes and agencies (either nationally and/or internationally)?

- Yes 8
- No 25

If “yes”, please provide details:

**B.7** Is your country engaged in any projects/initiatives to facilitate the regular international exchange of forensic data/information or to set up access to forensic data collections?

- Yes 26
- No 10

Please provide details of any such work, indicating the scope of the data being shared and the mechanism of data exchange (e.g. a common database with access by all countries, reciprocal arrangements to search databases in a different country). Please describe any key factors (technical, legal etc.) that are helping or hindering such work.

Your answer here:

### Prosecutions (Involvement of Forensic Experts)

**B.8** Does your legal system accept the following from forensics experts in a different country?

- Yes 27
- No 3
  - Legal statements
  - Reports
  - Verbal evidence

Please provide details, as appropriate:

**B.9** Please provide any examples of casework situations where:
- Forensic experts in your country have provided expert opinion (written statements, courtroom appearances etc.) in a different country to support prosecutions.
  - Yes 23
  - No 5
- and / or
- Forensic experts from a different country have provided expert opinion (written statements, courtroom appearances etc.) in your own country to support prosecutions.
  - Yes 16
  - No 9

Please provide general outlines of such relevant situations and describe any key factors that have helped or hindered the implementation of such activities.

Your answer here:
Forensic Support Turned Away

B.10 Please provide any examples of situations where:
you have been involved when your country has offered forensic support to a different country but this
offer was turned away?  Yes 4   No 26
and / or
you have been involved when a different country has offered forensic support to your country but this
offer was turned away?  Yes 1   No 25
Please provide general outlines of such relevant situations and describe your understanding of the
decisions that were made at the time.
Your answer here:

Cooperation Between Countries (Overview)

B.11 Please use your general background experience and take a broad view of international forensic cooperation to answer this question.
What factors do you believe provide the greatest obstacles to international forensic cooperation in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact)
Your answer here:

B.12 Please use your general background experience and take a broad view of international forensic cooperation to answer this question.
What practical changes and/or initiatives do you believe would have a significant impact to improve the cooperation between countries when using forensic science in the fight against terrorist crime, serious organised crime etc? (Please list in your order of priority to reflect their relative importance and potential impact)
Your answer here:

Forensic Cooperation in the Future

B.13 Would you consider cooperating (giving or receiving assistance) with other forensic science institutes in the future?  Yes 35 No 2
If "yes", please would you consider:
Inside your own country
36 Setting up a formal cooperation agreement with another Institute
28 Sending forensic work to another Institute
27 Using staff from another Institute in your Institute
30 Sending your staff to work at another Institute
20 Paying for work or services from another Institute
23 Using the facilities of another Institute
Outside the borders of your own country
30 Setting up a formal cooperation agreement with another Institute
29 Sending forensic work to another Institute
27 Using staff from another Institute in your Institute
27 Sending your staff to work at another Institute
19 Paying for work or services from another Institute
23 Using the facilities of another Institute

Please comment to help explain your answers to these questions:

END OF PART B
APPENDIX NINE  Results
Summary (ENFSI Expert Working Group Questionnaires)
# RESULTS SUMMARY

## ENFSI EXPERT WORKING GROUP QUESTIONNAIRES

(16 Responses Received)

This Appendix contains the questions from the ENFSI Expert Working Group Questionnaire. Wherever appropriate the responses from the 16 respondents have been summarised alongside the questions (white on red).

### Part I ‘Preparedness’

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you consider your area of forensic science relevant to counter-terrorism?</td>
<td>Yes 14</td>
</tr>
<tr>
<td></td>
<td>No 2</td>
</tr>
<tr>
<td>If you answered “yes” to Q.1, please say in what ways and, if possible, give these levels of importance (high, medium &amp; low).</td>
<td>High 5</td>
</tr>
<tr>
<td></td>
<td>Medium 4</td>
</tr>
<tr>
<td></td>
<td>Low 5</td>
</tr>
<tr>
<td>How would you describe the level of preparedness in your area of forensic science?</td>
<td>High 6</td>
</tr>
<tr>
<td></td>
<td>Medium 6</td>
</tr>
<tr>
<td></td>
<td>Low 3</td>
</tr>
<tr>
<td>Please explain your view.</td>
<td>For the scientific areas of high relevance (Questions 1 and 2) none were rated with a low level of preparedness</td>
</tr>
<tr>
<td>In your opinion, what proportion of ENFSI forensic science institutes have an adequate level of preparedness?</td>
<td>10% 1</td>
</tr>
<tr>
<td></td>
<td>15-20% 1</td>
</tr>
<tr>
<td></td>
<td>50% 1</td>
</tr>
<tr>
<td></td>
<td>100% 3</td>
</tr>
<tr>
<td>Which institutes would you describe as ‘prepared’?</td>
<td>In most of the Western European countries</td>
</tr>
<tr>
<td>Which institutes would you describe as ‘not prepared’?</td>
<td>Relatively more in the South and Eastern European countries</td>
</tr>
<tr>
<td>In your area of forensic science, which of the following do you think need significant improvement?</td>
<td>Health &amp; Safety 3</td>
</tr>
<tr>
<td>For the items selected please indicate their relative levels of importance (high, medium &amp; low).</td>
<td>Training &amp; Competence 13</td>
</tr>
<tr>
<td></td>
<td>Deployment of Specialist Teams 8</td>
</tr>
<tr>
<td></td>
<td>Quality 7</td>
</tr>
<tr>
<td></td>
<td>Science &amp; Technology(exchange, availability) 7</td>
</tr>
<tr>
<td></td>
<td>Management &amp; Contingency Planning 6</td>
</tr>
<tr>
<td></td>
<td>Other (please list) …</td>
</tr>
<tr>
<td>Training &amp; Competence is chosen most frequently. In addition to the listed areas of improvement, the need for a common set of standards and common databases is voiced.</td>
<td></td>
</tr>
<tr>
<td>Which non-ENFSI Institutes are involved in your area of forensic science?</td>
<td>Answers here vary greatly according to the specific field of expertise</td>
</tr>
</tbody>
</table>

### Part II ‘Cooperation’

<table>
<thead>
<tr>
<th>QUESTIONS</th>
<th>ANSWERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of any examples of successful cooperation at the national level? Please list them.</td>
<td>Answers here were very varied. Most EWG Chairs give examples of contacts at the national level in their own particular country. However, the examples given seem to be instances of legal</td>
</tr>
</tbody>
</table>

APPENDICES - Page 48
Assistant involving the takeover or transfer of casework from one agency or supplier to the next rather than instances of actual cooperation. Surprisingly, these responses suggest that it is not common practice for cases to be worked in cooperation with other national agencies or institutes. Cooperation exists in areas such as Quality Management (exchange of documents) or training.

Are you aware of any examples of successful cooperation at the international level? Please list them.

Answers are similar to those given to Question 1. Cases may be transferred as part of legal assistance. However, there were few examples of cooperation in case-work situations. Again, as in Question 1, cooperation exists in areas such as Quality Management (exchange of documents) or training.

Are you aware of anything that has seriously hampered cooperation between forensic science institutes – nationally or internationally? Please give examples.

Most EWG Chairs seem undecided here. Issues hampering cooperation seem mainly to concern: different judicial systems in different countries; differences between state forensic institutes and privatised forensic institutes.

What changes would you like to see in national or international legislation to improve cooperation? Please list them.

Among the identified needs for change and improvement are the following: standardisation of methods; harmonisation of legislation within the EU; mutual use of databases.

What changes would you like to see in technology & methodology to improve cooperation? Please list them.

The need for change and improvement is seen in the area of providing secure means of communication (secure internet-platforms for discussion, equipment for video conferences). Also, a need is seen for international standards and project work.

What changes would you like to see in the communication between forensic institutes to improve cooperation? Please list them.

There is some overlap with the answers to Question 6. Again, the need for internet platforms for improved communication and the establishment of international standards are considered important. Ideas for creating human liaison points between forensic institutes are suggested.

Are there any other suggestions that you would like to make to improve cooperation? Please list them.

The answers here vary considerably. Over and above the ideas for improvement already mentioned further suggestions included: provision of a list of experts across Europe; use of databases across Europe; implementation of joint projects; implementation of mentorships; training through internships.

Has your EWG carried out any surveys that may be relevant to the current study? If “yes”, please list them.

It is evident that very few surveys have been carried out to date.
31 APPENDIX TEN  Forensic Cooperation - Categorised Responses from the Forensic Community
**International Forensic Cooperation – Categorised Responses from the Forensic Community**

N.B. The original detailed analysis of the responses by the study team has been represented for the final report in such a way as to respect the confidentiality of the respondents, wherever possible.

<table>
<thead>
<tr>
<th>PROBLEMS, OBSTACLE or LIMITATION TO COOPERATION</th>
<th>SUGGESTED REMEDIES, SOLUTIONS &amp; ENHANCEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Legal Matters</strong></td>
<td></td>
</tr>
<tr>
<td>Legislation &amp; procedure barriers to the sharing of forensic data.</td>
<td>Higher level scientific work (excluding context) is usually exempted.</td>
</tr>
<tr>
<td>Some Legal Systems do not accept Legal Statements and Reports from overseas (only verbal evidence)</td>
<td></td>
</tr>
<tr>
<td>Greatest Obstacles: “Different Legal Systems / Requirements”</td>
<td></td>
</tr>
<tr>
<td>“Differences in legal requirements” Highlighted as SECOND greatest general obstacle to forensic cooperation</td>
<td></td>
</tr>
<tr>
<td>Different legislation can make cooperation difficult. Examples include differences with reference to electronic surveillance where it can be used in court in some countries but not others. The legislation about secrecy also has to be the same. If someone of the involved countries make the information public before everyone has been able to use it, this will damage the will for cooperation.</td>
<td>In the future the legislation in EU should gain from being more alike.</td>
</tr>
<tr>
<td>Harmonisation of legislation.</td>
<td></td>
</tr>
<tr>
<td>A similar legal system and maybe a special terrorist law in EU</td>
<td></td>
</tr>
<tr>
<td>Indicates there are no legal obstacle and no policy and procedural barriers for cooperation.</td>
<td></td>
</tr>
<tr>
<td>Difficult legislation for exchange of data linked to a certain individual.</td>
<td>Common EU legislation</td>
</tr>
<tr>
<td>Indicates that there are no legislation barriers for cooperation</td>
<td></td>
</tr>
<tr>
<td>Lack of legal framework, treaties and agreements.</td>
<td>To establish cooperation agreements and exchange at a political level</td>
</tr>
<tr>
<td>Indicates that there are no legal barriers</td>
<td></td>
</tr>
<tr>
<td>Different laws and jurisdiction.</td>
<td></td>
</tr>
<tr>
<td>Maybe there are some legal barriers</td>
<td>Indicates that there are no legislation barriers in own country.</td>
</tr>
<tr>
<td>Reports that there are no obstacles in the legislation or in the policy that should hinder cooperation.</td>
<td></td>
</tr>
<tr>
<td>No barriers either in legislation or in the policies and procedures. They have a lot of cooperation with one particular EU country. They have no problems with the exchange of DNA information in accordance with the Prüm Treaty.</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>A very strict legislation when it comes to the possibilities of using fingerprint and DNA.</td>
<td></td>
</tr>
<tr>
<td>It is forbidden for forensic laboratories to exchange forensic data and there has to be a decision from prosecutors to share data.</td>
<td></td>
</tr>
<tr>
<td>Not allowed with legal statement and verbal evidence from other countries</td>
<td>Their national legislation needs to be closer to that in the EU.</td>
</tr>
<tr>
<td>Lack of legal mechanism for international cooperation and lack of international standards for crime scene and laboratory exercises</td>
<td>Work for ENFSI or other EU groups</td>
</tr>
<tr>
<td>There are both legislation barriers and policy and procedure barriers for sharing forensic data in order to protect personal data</td>
<td>EU legislation for easier exchange of data.</td>
</tr>
<tr>
<td>Lack of legal regulations.</td>
<td>Top down regulations from EU. Use of personal contacts.</td>
</tr>
<tr>
<td>Cooperation hampered by different judicial systems.</td>
<td>a) harmonisation of EU legal systems. b) simplified legal assistance agreements.</td>
</tr>
<tr>
<td>Different legal systems.</td>
<td>Harmonisation of legal systems in EU.</td>
</tr>
<tr>
<td>Legislative differences.</td>
<td>Harmonisation of EU legislation.</td>
</tr>
<tr>
<td>National law does not allow the use of forensic expertise from abroad.</td>
<td></td>
</tr>
<tr>
<td>Historic legacy relating to national laws and the organisation of forensic science.</td>
<td>New legislation</td>
</tr>
<tr>
<td>DNA Sharing with a certain EU country.</td>
<td>Constitutional and Statute changes.</td>
</tr>
<tr>
<td>Prüm Convention; a legal barrier preventing forensic data sharing.</td>
<td>No suggestion of a remedy. It is not clear how the Prüm Treaty is a barrier to data sharing. This is not clearly understood or stated in the answer. [Study team note]</td>
</tr>
<tr>
<td>Organizational and legal obstacles.</td>
<td>No suggestions given.</td>
</tr>
<tr>
<td>National legislation</td>
<td>Existing platforms are enough for experience transfer: national &amp; international legislation.</td>
</tr>
<tr>
<td>Legal barriers in relation to the regulations for databases and taking a samples from an offender.</td>
<td>Exchange information between dedicated teams. Having international databases for DNA, fingerprints.</td>
</tr>
<tr>
<td>Legislation barriers</td>
<td>Treaty of Prüm. Forensic data without personal data (e.g. GSR reference database).</td>
</tr>
<tr>
<td>Language barriers. Different judicial systems make it hard for experts to provide opinion.</td>
<td>Use of foreign experts. Recognition of forensic experts on an EU level.</td>
</tr>
<tr>
<td>Legislation barriers mentioned which are said to be ‘incident related’. Legal barriers</td>
<td></td>
</tr>
<tr>
<td>Judicial approval required for the exchange of information.</td>
<td></td>
</tr>
</tbody>
</table>
- lack of legal arrangements between countries
- the lack of a European law system
- the mess (sic) of the law control
- historic legacies affect attitudes to data collection

To give Europe a corpus of law thereby allowing direct coordination and rapid exchanges between law enforcement agencies and state forensic labs.

| Different attitude in different countries towards the meaning and the importance of forensic evidence. |  |
| Different legal systems with different roles of forensic experts in the penal (judicial perhaps!) procedure. |  |
| Different legislation. |  |
| Written reports require ‘reconfiguring’ and redesigning when used in some other jurisdictions. |  |
| Two barriers are technical and legal differences between ‘administrations’ perhaps jurisdictions. |  |
| Physical transfer of exhibits across international boundaries is not normally permitted. |  |
| Official legal requests for assistance need too much time. |  |
| National and international (EU) bureaucracy. |  |
| Different legal systems. | International political / legal agreements. |
| Different legal systems | EU regulations |
| - chain of evidence |  |
| - giving expert witness |  |
| Legislation barriers : will exclude minor crimes. |  |
| Legislation (criminal procedure law, data protection law) especially concerning personal data (as DNA or fingerprint). Security level of information (including personal information) different from one country to another. |  |
| National legislation | National laws on DNA profiling and DNA databases have to be implemented in all the countries. |

**Language Problems**

<p>| Information Flow. “Language barriers” highlighted as first general obstacle to forensic cooperation. |  |
| Greatest Obstacle: “Language Barriers” (second on list) |  |
| Two reasons for obstacle are bureaucracy and language barriers. | Education and training |
| Language problems | Education in English (or: German as standard communication) |
| Language problems | Education in English |
| Language / distance |  |
| Language barrier | Translation of all documents. |
| Language barriers | Use of foreign experts. Recognition of forensic experts on an EU level. |</p>
<table>
<thead>
<tr>
<th>Language</th>
<th>Forensic interpreters? Databases with specific forensic vocabulary in all relevant languages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation is hampered by language differences problems</td>
<td>Language barrier Preparation of experts with specific language skills.</td>
</tr>
<tr>
<td><strong>SPOCS</strong></td>
<td>Central function in all countries.</td>
</tr>
<tr>
<td>SPOCS</td>
<td></td>
</tr>
<tr>
<td>That cooperation issues with another country are managed via a central point. By doing so, it is possible to choose the best cooperation channel for the actual question. Sometimes, the police authorities address directly to the police in another country, risking that the work is negotiated via numerous channels. During cooperation you should have a legal control of what can be done and what can not be done. This handling is also facilitated by a central function, which supplies the contacts.</td>
<td>The forensic institute should be involved in the liaison process directly.</td>
</tr>
<tr>
<td><strong>Method Standardisation / Quality</strong></td>
<td>Effective initiatives to promote forensic cooperation. Key factor highlighted: For forensic scientists to apply uniform testing methods. In this way the information is more valid, scientifically &amp; legally. Sharing criminal information between allies is vital in the battle against international terrorism.</td>
</tr>
<tr>
<td>Need for forensic scientists to apply uniform testing methods.</td>
<td>Need for work towards worldwide agreement on FP technical standards.</td>
</tr>
<tr>
<td>Serious dangers from having no worldwide agreements on FP technical standards (see the well published Brandon Mayfield case).</td>
<td>Standardisation of the demands in methods and standard procedures.</td>
</tr>
</tbody>
</table>
| The quality is not good enough in all laboratories and there are fields with no standards. This can make it very difficult to cooperate | - Accreditation for all forensic laboratories inside EU and much more work with standards, best practice and standard procedures.  
- For example, there should be more work inside ENFSI with proficiency tests and there should be clear demands of improvement if you fail the test. It is important that every laboratory reaches a minimum level in the fields they decide to work in.  
- More work in training those labs that are new in a field or do not make a good result. The training could be in the form of seminars and workshops. |
| You also have to find methods and standard procedures for the work done in countries where there are no legal demands of chain of custody, so that they can be used in countries where legal demands exist and where chain of custody is very important. | Work for ENFSI or other EU groups. |
| Lack of legal mechanism for international cooperation and lack of international standards for crime scene and laboratory exercises. | Joint exercises. |
|                                                | Exchanges of protocols. |
| Lack of standardised routine procedures. | • establishing routine procedures  
• developing best practice standards  
• organizing workshops  
• offering internship and mentorship |
| Difference in technical facilities and compatibility | Development of standards |
| Differences in methods | Development of standards |
| Use of different methods. | Existing platforms are enough for experience transfer: technology & methodology. |
| | At the international level, standards (technology & methodology) already exist. |
| | International validation of the methods. |
| Standardisation of forensic work. | Financial support of the exchange of experts. |
| National competence | |
| Two barriers are technical and legal differences between ‘administrations’ perhaps jurisdictions. | Alignment of technical and legal standards between countries. Common standards are key. |
| | The most significant and beneficial change would be a Europe wide AFIS system with direct International connectivity coupled with fight to access to national database for all interested parties. This would need to be based on an accepted common technical standard – probably sitting alongside national accepted standards. |
| | Standardisation to achieve comparability between the laboratories (best practice guidelines) |
| Missing standardisation | • International agreements by the police and forensic institutes  
• Standardisation of analytical procedures |
| Standards | At the international level, standards (technology & methodology) already exist. |

**Personal Contacts vs Official Channels**

| Unless you know an international colleague personally, it seems difficult to get information | Make forensic scientists comfortable with other judicial systems and environments, e.g. by training, workshops, traineeships |
| Willingness to share information is based on personal contacts | More (informal) networking |

**Training Needs**

<p>| The people in arrows 1-5 of the forensic cooperation model must have a lot more knowledge of how the cooperation works in arrow 6-9. | Training and education. |
| Lack of education and training among police and prosecutors. | Improvement of education and training for lawyers in the field of forensic sciences. |</p>
<table>
<thead>
<tr>
<th>Preparedness &amp; Training</th>
<th>Training to scientists. Consulting in laboratory development facilities. High level training and education and research comparable.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R&amp;D &amp; Project Activity</strong></td>
<td>Centralisation of the research projects coordinated within EU to increase the efficiency of research and to ensure spread of knowledge to participating countries within all relevant fields.</td>
</tr>
<tr>
<td>Lack of project work</td>
<td>More active engagement in developing methods in international project groups within ENFSI.</td>
</tr>
<tr>
<td>Competition on research between scientists/institutes.</td>
<td><strong>No suggestions</strong></td>
</tr>
<tr>
<td><strong>Communication Between Forensic Experts</strong></td>
<td>Cross border liaison, intelligence sharing, cross border training, on-going collaboration between scientists from respective laboratories.</td>
</tr>
<tr>
<td>Need for “helping information flow” between countries.</td>
<td>Effective Initiatives to promote forensic cooperation. Maintaining collaboration/networks.</td>
</tr>
<tr>
<td>A lack of interaction between institutes and Interpol and other police agencies.</td>
<td>More Open &amp; Direct communication. Much more collaboration. More electronic forums and discussions. More meetings and communication between groups.</td>
</tr>
<tr>
<td>Poor communication for sharing good practice. “We (ENFSI EWG) have web pages but I am not sure that they are seen by Institutes and Practitioners. Have the means to share good practice”.</td>
<td>The work inside ENFSI EWG has meant a lot for the willingness of cooperation between different forensic laboratories.</td>
</tr>
<tr>
<td>Cooperation in the “daily life” makes it easy to co-operate when the big terrorist action will take place.</td>
<td>A good cooperation in the normal business. If you are used to cooperating it is easier to do so in a crisis. It is much easier to cooperate with your neighbours. Sometimes even same language.</td>
</tr>
<tr>
<td>A “think tank” for ideas that may develop in cooperation.</td>
<td>Problems might arise from communication problems caused by language barriers, liability problems, command authority over foreign personnel and financial costs when outsourcing work.</td>
</tr>
<tr>
<td><strong>Lack of activity a) among institutes b) of EWG members</strong></td>
<td>A standard cooperation treaty for forensic matters. Accreditation of forensic laboratories</td>
</tr>
<tr>
<td>Lack of interdisciplinary communication.</td>
<td>Establishing interdisciplinary information routines and interdisciplinary work.</td>
</tr>
<tr>
<td>Lack of communication between EWG members.</td>
<td>Establishing specific internet for a (platforms) and training the individuals using them.</td>
</tr>
<tr>
<td>Lack of cooperation between ENFSI and Non-ENFSI institutes.</td>
<td>Improvement of cooperation, especially in major incidents.</td>
</tr>
</tbody>
</table>
| **Personal contacts between forensic investigators and scientists.** | • Lower thresholds that enable better communication and cooperation  
• Mutual R&D projects e.g. internationally accessible forensic databases  
• organizing international symposium for discussion on the mechanisms of data exchange. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication: existing platforms are enough for experience transfer.</td>
<td></td>
</tr>
</tbody>
</table>
| ENFSI EWGs serve as counsellors at the national level.  
General communication flow has to be controlled by the responsible police authorities. |

**Missing interfaces**  
**Exchange of Forensic Experts**  
**Lack of exchange of experts**  
Financial support  
**Long Term Regional Support**  
Operational support  
Need for continuing support to neighbouring countries after a crisis.  
**Support to develop capability**  
“Specific funding allocated to specific regions to assist in capacity building (training, lab infrastructure, purchase of equipment, backup assistance as required).”  
Effective initiatives to promote forensic cooperation: capacity building.  
Need to build on and develop law enforcement training programs for police in the international arena to combat terrorist acts.  

**Cultural Factors**  
**Greatest obstacles are the different cultures, interests & expectations. The “forensic scientist” / “law enforcement” divide. (misunderstandings, unrealistic expectations etc.)**  
Effective initiatives to promote forensic cooperation: training  
Also, encouraging the culture of calling for a second independent opinion from another forensic institute.  
Everyone understands the forensic cooperation model and the part that they play in it – training etc.  
**[Study team comment]**  
Enhanced efforts into the metrics of laboratories (costs & benefits) to illustrate the value of forensics to non-scientists, i.e. to criminal justice systems and to understanding drugs and crime trends (enhanced forensic awareness outside the laboratory will help those who are taking strategic decisions that affect laboratories to make more informed decisions).  

**Greatest obstacles are the different cultures, interests & expectations**  
Capacity building projects are often too ambitious (this may be linked to financial cycles and the needs to show results/impact in unrealistically short timeframes). A capacity build can also be ‘premature’ for a situation.
<table>
<thead>
<tr>
<th>Misconceptions about forensic infrastructure:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• often different law enforcement entities are insisting on their “own” laboratory (e.g. police, gendarmerie), thus contributing to less than optimal use of available resources (i.e. two labs in a country with limited resources)</td>
<td></td>
</tr>
<tr>
<td>• outsourcing: although more cost-effective in some cases there is a reluctance to outsource certain activities, at national or at regional level (e.g. sharing common databases and agreeing on arrangements for access)</td>
<td></td>
</tr>
</tbody>
</table>

| Where forensic suppliers and the police are part of separate organisations there is a tendency not to share information. Data protection legislation is often sited as a reason for not being able to share forensic databases, | Clarification / amendment of data protection and other legislation to allow independent institutes) to exchange data. Essentially the establishment of non-police forensic network supplementing ENFSI with a casework focus. |

| ENFSI should co-operate more with other regional organisations in the world, in order to find out more about different cultures and interpretation backgrounds. |  |

| Cooperation is hampered by differences in culture: in one country the forensic institute is under the ministry of justice; in another country under the police. Often post-blast forensic investigation is a military responsibility. |  |

<table>
<thead>
<tr>
<th><strong>Coordination of Forensic Cooperation</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Support to develop local operational capability (preparedness). Lack of Coordination of technical assistance. This is a key issue. The main reason for the current lack of coordination is probably strategic interests. The assistance will be delivered but without giving consideration to similar activities by other organisations. From the point of view of the recipient country/laboratory, it is often important to show the extent of external “collaboration”. The number of meetings or training courses that staff attended may be used to reflect this collaboration. Simple counts may therefore be given priority over the objective need for participation and/or the advancement of staff (i.e. there may be participation in very similar courses).</td>
<td>A mechanism for coordination of technical assistance and cooperation activities and a similar system just for the coordination of capacity building efforts in the forensic field.</td>
</tr>
</tbody>
</table>

| Ensure that countries cooperate and that the information is easily available. To advance system seldom works. Easy and intelligent designed databases, research-programs and training should be organized e.g. by ENFSI. |  |

<p>| To become members of forensic science networks – ENFSI and others. |  |</p>
<table>
<thead>
<tr>
<th>They mention different legislation and bureaucracy as obstacle in some countries.</th>
<th>It is needed for a technical forensic working group inside EU with the aim to build up the cooperation between countries in the forensic field and to have a real impact on the legislations. Either ENFSI takes that role from EU or a new group.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative testing exercises. For example, through ENFSI.</td>
<td>More practical activities of Europol and/or Interpol. Formation of international teams for activities within countries.</td>
</tr>
<tr>
<td><strong>Security</strong></td>
<td></td>
</tr>
<tr>
<td>Information / Security leakage</td>
<td><strong>No suggestions</strong></td>
</tr>
<tr>
<td>Timely provision of government permission to enable an effective response. Sharing of classified information</td>
<td>Put MOUs in place.</td>
</tr>
<tr>
<td>National security</td>
<td></td>
</tr>
<tr>
<td>Prosecutor controls sharing of forensic information National security concern</td>
<td></td>
</tr>
<tr>
<td>Security risks are hindering cooperation and courtroom appearance in some countries.</td>
<td></td>
</tr>
<tr>
<td>Sometimes information is withheld because of confidentiality.</td>
<td></td>
</tr>
<tr>
<td>Confidentiality is used as an excuse for not sharing information (even when people are screened at the highest level).</td>
<td></td>
</tr>
<tr>
<td>Sharing sensitive information (including between civil and military side)</td>
<td></td>
</tr>
<tr>
<td>Classified information</td>
<td></td>
</tr>
<tr>
<td><strong>Data Sharing / Data Protection / Databases</strong></td>
<td></td>
</tr>
<tr>
<td>Misconceptions about forensic information / data sharing. Casework vs Strategic (Need to be fit for purpose, avoid over sophistication).</td>
<td>More focus on the sharing of basic data to enable laboratories worldwide to contribute (and not favour an elite group of laboratories).</td>
</tr>
<tr>
<td>Forensic information sharing only via formal international legal procedures.</td>
<td>The most significant and beneficial change would be a Europe wide AFIS system with direct International connectivity coupled with access to national databases for all interested parties. This would need an accepted common technical standard – probably sitting alongside national accepted standards.</td>
</tr>
<tr>
<td>A data bank of information about services available within the fields of forensic science with a focus on terrorism.</td>
<td></td>
</tr>
<tr>
<td>Opening legal system for international information exchange</td>
<td></td>
</tr>
<tr>
<td>Development of procedures for free sharing for forensic information and data.</td>
<td></td>
</tr>
<tr>
<td>Personal contacts &amp; use of confidentiality agreements. Fixed legal procedure in place.</td>
<td></td>
</tr>
</tbody>
</table>
DNA and fingerprint databases are located within a different national investigative department. 

**Limitation in access to international forensic databases.** 

Said limitation is mentioned as a delay based on the limited resources in order to achieve the most updated version of the database/collection. However it is not clear if this limitation is a general limitation caused by the central DB or a limitation on end users’ software/hardware resources [Study team comment]

Database is held and maintained by the institute itself, but the owner is Police Requesting police party is in charge of legal arrangements.

Ministerial permission required to share data

Different approaches to protecting data (data protection)

Need for international database of fields of expertise and methods for specific investigations and analyses and the relevant points of contact. Set up the suggested database.

Prosecutor must allow for sharing forensic data.

### **Limited Time & Resources to Cooperate**

Regular sharing of forensic information. Heavy routine casework hence little time for networking etc.

Only Central Laboratories or R&D laboratories may have resources to do more than casework.

Problems with lending out staff and to let staff from other laboratories work in their own facilities.

Lack of financial resources

Lack of financial resources for cooperation and work from other institutes Higher budget

Lack of resources Higher budget

Lack of enough resources Necessary capacity/resources/funding in place

More employees and better funding?? The answer does not seem to be in line with the question. [Study team comment]

No additional capacity available in the laboratory

Funding must be in place and response must be aligned with government policy Close personal contacts, relationships built via working groups

Costs

Financial, aspect

Lack of equipment, funding and infrastructure.

Funding must be in place before work begins..

Lack of staff (not enough to maintain a data collection).

Limited manpower.

Financial obstacles.
<table>
<thead>
<tr>
<th><strong>Sustainability &amp; Continuity</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Support to develop local operational capability (preparedness). Having trained staff they move on (up the career path - management, outside the lab, even to overseas positions). Turnover of staff. Problems of sustainability &amp; continuity</td>
</tr>
<tr>
<td>Support to develop local operational capability (preparedness). Constraints related to financial do not always facilitate long-term (and resource intense) commitments to training &amp; mentoring. Problems of sustainability &amp; continuity</td>
</tr>
<tr>
<td>Money available for starting and developing projects, but hard or even impossible, to get funding out of the EU for long-term administration and maintenance (of databases, say).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Commercial</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reservations about paying for work or services from another institute (within own country or overseas). Preference for “in-kind collaboration”</td>
</tr>
<tr>
<td>Reservations about paying for work or services from another institute overseas.</td>
</tr>
<tr>
<td>Commercial forensic markets may not foster cooperation. R&amp;D might be driven by purely financial requirements making R&amp;D partnerships with other non-commercial institutes more difficult.</td>
</tr>
<tr>
<td>The commercialisation of forensic science is seen as being strange within some parts of Europe. [The Police] “like to feel that they are dealing with government organisations”.</td>
</tr>
<tr>
<td>The laboratory seems to have trouble with using staff from other courtiers and letting staff work for another laboratory. They also have problems with charging for the work.</td>
</tr>
<tr>
<td>Seems to have difficulties with paying somebody for the work.</td>
</tr>
<tr>
<td>There seems to be a problem with sending staff to another laboratory and to pay for the work (I don’t know if it is forbidden or if they just don’t have the budget for it).</td>
</tr>
<tr>
<td>They indicate that they have trouble paying for work and using the facilities of other laboratories. The decision is not in their hands and they would need to ask the government.</td>
</tr>
<tr>
<td>They can send work away but it seems that exchange of staff and to pay for work is difficult.</td>
</tr>
<tr>
<td>Cannot send work to another institute outside their own country and they cannot pay for work done by another institute.</td>
</tr>
<tr>
<td>Lack of – in principle well established – cooperation by financial charge.</td>
</tr>
<tr>
<td>More focus on and advocacy for sustainability across development of local operational capability (this will also be facilitated by improved coordination)</td>
</tr>
<tr>
<td>Long-term plan for central administration of databases and systems that EU money funded from the beginning. National and some overarching plans from EU</td>
</tr>
<tr>
<td>Some kind of EU legislation or agreement that stipulates that this kind of cooperation can take place and regulate the cost for it.</td>
</tr>
<tr>
<td>General agreement inside EU allowing work done by other institutes and regulation of the costs for the work.</td>
</tr>
<tr>
<td>Topic</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Financial charge.</td>
</tr>
<tr>
<td>Privatisation of forensic institutes.</td>
</tr>
<tr>
<td>Profit-oriented management of privatised institutes/forensic companies.</td>
</tr>
<tr>
<td>The forensic science market / commercial considerations</td>
</tr>
<tr>
<td>Reimbursement of costs incurred by forensic providers from abroad.</td>
</tr>
<tr>
<td><strong>Support Turned Away</strong></td>
</tr>
<tr>
<td>Support turned away – dependent on government to government offers and acceptance.</td>
</tr>
<tr>
<td>Aware of a country turning down an offer of DVI help in relation to a terrorist incident.</td>
</tr>
<tr>
<td>Aware of an offer to a government to provide forensic divers that was refused.</td>
</tr>
<tr>
<td><strong>Political</strong></td>
</tr>
<tr>
<td>Lack of information sharing between EU countries and countries outside of the EU</td>
</tr>
<tr>
<td>Our country not willing to set up formal international forensic cooperation agreements.</td>
</tr>
<tr>
<td><strong>Miscellaneous</strong></td>
</tr>
<tr>
<td>International exchange only occurs with a different national group.</td>
</tr>
<tr>
<td>International cooperation is via national police</td>
</tr>
<tr>
<td>A lack of interaction between institutes and Interpol and other police agencies.</td>
</tr>
<tr>
<td>Not all forensic scientists like to testify in court in another country.</td>
</tr>
<tr>
<td>Different international policies</td>
</tr>
<tr>
<td>Complicated and multi-stage procedure of coordination of any international cooperation.</td>
</tr>
<tr>
<td>Lack of knowledge of cooperation possibilities (legal aspects, organisation, international cooperation channels)</td>
</tr>
<tr>
<td>Transportation of sensitive material (explosives, drugs and firearms) due to restricted legislation, over the borders (casework, proficiency test)</td>
</tr>
<tr>
<td>Many contact points in one country</td>
</tr>
<tr>
<td>Lack of initiative, anticipation, coordination, open communication.</td>
</tr>
</tbody>
</table>