



Council of Europe

CRIME ANALYSIS

Organised crime – Best practice survey no. 4

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Document prepared by members and scientific experts of the Group of specialists on criminal law and criminological aspects of organised crime (PC-S-CO)

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1 Introduction

1.1 BACKGROUND

The Group of Specialists on Criminal Law and Criminological Aspects of Organised Crime was established in 2000, replacing and continuing the work of the Committee of Experts on Criminal Law and Criminological Aspects of Organised Crime which had been established in 1997. Its terms of reference state that the Committee should - *inter alia* - carry out best practice surveys to study existing solutions to combat organised crime in member States as examples for other member States.¹

This topic of crime analysis for such a survey was chosen for the following reasons:

- Crime analysis is not a new working method of law enforcement authorities.² However, while a number of practitioners deny significant improvements in this field, some countries have made it a specific discipline. It was therefore found necessary to try to determine the actual potential of crime analysis. A variety of factors seem relevant in this respect. Just to mention a few:
 - the increase in making state authorities accountable for their action, in particular in the light of the (re)new(ed) challenge of fighting crime
 - undeniable positive results achieved through various types of crime analysis, including criminal profiling and strategic analysis
 - the fact that result-oriented and targeted approaches tend to become an imperative policy-making methodology
 - the enhanced police co-operation in Europe and the development of the European Union 3rd pillar, and the subsequent dissemination of ideas and experiences
 - the necessity to optimise the efficiency of public authorities in a context of shrinking public resources and/or reduced public interventionism
 - the post 1989 international political context and the focusing on more internal threats, including with the experience of former secret services
 - the greater intellectual competition on the service and labour markets
 - the availability of computer powered software for sophisticated data processing and visual presentation of complex relationships.
- A number of countries have decided to apply crime analysis using different approaches. Consequently, it was found worthwhile to study the experience gained so far in order to determine whether it was possible to draw a typology and lessons for policy makers in other countries.
- Organised crime is a sophisticated and innovative form of crime (involving economic, financial and technological sectors, among others). Sophisticated and innovative approaches against crime have thus become a necessity.
- Taking into account that crime analysis reflects in reality various kinds of activity (operational work, preparation of the decision and policy making), crime analysis appears to be a technique for better targeted crime policies, in

¹ So far, Best Practice Surveys on witness protection, the reversal of the burden of proof, and interception of communications have been published.

² See for instance the amazing Fritz Lang's "M", a 1931 cinematographic testimony of older times' crime and crime pattern analysis (and offender profiling).

particular keeping in mind the shrinking of public resources and the accountability of policy makers and authorities.

1.2 PURPOSE OF THE SURVEY

The basic idea behind these best practice surveys is that member States should be enabled to learn from the way theory and practice of combating organised crime are applied in other member States. Each survey concentrates on a particular method. Since it is practically impossible to study the situation in every member State, only a few are selected on the basis of their experience in the field and characteristics like the legal system and the geographic position. It is not necessary to try and provide a complete picture of the method (i.e. crime analysis) in each of the countries visited. The Council of Europe survey team concentrated on those elements of the situation that could serve as good examples ('best practices') for other member States.

As mentioned above, this study aims at providing a basis for reflection to policy makers and those (middle rank) officials responsible for the development and implementation of policies. Presenting in a reasonable number of pages a subject which combines both (sometimes very) theoretical and practical aspects and this from a comparative point of view is always challenging. A fortiori if one considers the imperatives that have to be taken into account in a democratic society as soon as law enforcement measures are being dealt with, that is the protection of human rights and freedoms. In the present case, crime analysis can – indeed - conflict with principles such as the presumption of innocence, the protection of personal data and the right to a fair trial.

Taking into account that the risks of such a conflict is much smaller as could be the case when dealing with the reversal of the burden of proof, the interception of communications or other special investigative methods such as the technique of the agent provocateur or certain undercover operations, it was decided to focus primarily in this report on the elaboration of a typology and catalogue of aspects relating to the development and implementation of crime analysis. Since the basic idea behind the Council of Europe best practice surveys is that member States should be enabled to learn from the way theory and practice of combating organised crime are applied in other member States, this report will point at the main items which could be of interest to the countries despite the variety of legal, institutional but also methodological traditions.

1.3 DEFINITIONS

For the purpose of this best practice study, the following definitions are used:

- Organised crime means³: *the illegal activities carried out by structured groups of three or more persons existing for a prolonged period of time and having the aim of committing serious crimes through concerted action by using intimidation, violence, corruption or other means in order to obtain, directly or indirectly, a financial or other material benefit.*
- Crime analysis can be described as: *a law enforcement function whereby data relating to crime are collected, collated, analysed, and disseminated. Simply put, crime analysis is the study of crime patterns and trends in an attempt to solve crimes or prevent their repeat occurrence.* For reasons of simplicity, in this survey no distinction is made between crime analysis and criminal intelligence analysis.
- Analyst: the person who performs the above-mentioned activities, be it a full time or part time activity.

1.4 ON SITE VISITS

The situation regarding crime analysis or working methods which come close to it – although not being explicitly referred to under this appellation - was studied in three countries: Belgium, the United Kingdom and Russia.⁴ These Member States were selected on the basis of the following considerations:

- they all are particularly experienced with the handling and exploitation of information, two of them being considered as applying crime analysis as such
- they all experience problems because of the illegal activities of organised criminal groups
- they have different legal and institutional systems, a factor according to which it was expected that the countries would vary in the background and use of crime analysis or similar working methods
- in order to have high level input for the study, it was considered unavoidable to include the Council of Europe member country considered widely the model for crime analysis.

The three member States selected for this best practice survey were visited in October 2000 by a small delegation of the Committee. The delegation was composed of Mr Kauko Aromaa and Mr Maximilian Edelbacher, members of the Committee PC-S-CO, Mr. Toon van der Heijden, scientific expert of this Committee and Mr. Christophe Speckbacher, Division of Crime Problems, Adviser to the Octopus II Programme. In every country the delegation met with representatives of law enforcement agencies (police units and competent agencies within the respective ministries of interior, such as the Gendarmerie in Belgium or the National Criminal Intelligence Service (NCIS) in the United Kingdom) and trainers of law enforcement personnel. In the United Kingdom and Russia interviews were conducted also with representatives of intelligence agencies/departments and researchers. In the United Kingdom, staff with civil background, of local and regional law enforcement and of the Office of the

³ See Recommendation No. R (2001)11 of the Committee of Ministers to member States concerning guiding principles on the fight against organised crime.

⁴ The authorities which have been met have kindly accepted that the names of the countries be mentioned in the report, on the basis of reciprocity

Commissioner for data protection also attended the round table discussions⁵. The purpose of the discussions was to obtain an overview of the scope of crime analysis in the countries, the infrastructure and working methods, the legal framework, the role of analysts and the perspectives of crime analysis.

In addition to the interviews, relevant documents, provided for by respondents and for the rest resulting from a limited search in literature, were studied. On the basis of this material, this report was written. The views expressed do not necessarily represent the official views of the Council of Europe.

The authors would like to stress once again that this survey is not meant to be a comprehensive study on crime analysis. It is nevertheless expected that the findings will provide food for thought for the countries where the introduction of crime analysis is under discussion or under way. It also aims at sharing the awareness of a number of challenges that have (or will have) to be faced in order to strengthen the dialogue and find common responses within and outside the Council of Europe. Finally, it could also assist such dialogue by contributing to a common conceptual understanding.

1.5 GENERAL BACKGROUND OF THE MEMBER STATES SURVEYED

The three Member States surveyed belong to different legal traditions which influences substantially their approaches to crime analysis. Belgium has a continental tradition, strongly influenced by the French (Bonapartist) model of administration, justice and bureaucracy. Russia has a communist/post communist tradition, with a strong top-bottom administrative and bureaucratic logic. The United Kingdom is characterised by the common law tradition and a pragmatic approach towards institutional setting-up, policy making and public management. Compared to the other two countries, law enforcement in the United Kingdom relies much more on initiatives taken by police and customs and much less on the actions of public prosecutions.

One of the most relevant recent developments in the United Kingdom is the coming into force of the Human Rights Act on October 1st, 2000, and of the Regulation of Investigating Powers Act 2000. It is expected that law enforcement need be much more careful in the logging of investigative activities, including analysis of data.

The police structure in Belgium changed on 1 January 2001. Until this date, there were three types of police: the Gendarmerie, the judicial police and the municipal police. The number of local police forces was reduced from 589 to about 200. They were integrated with the local units of the Gendarmerie. The rest of the Gendarmerie were integrated with the 23 judicial police districts into a federal police.

In the United Kingdom, some 965 criminal organisations with 7050 members were reported in 1999. In Belgium in the year 1999 about 336 criminal organisations, 2176 suspects and 30 different sorts of criminal activities were reported. Organised criminals have caused damage of 926.3 million Euro. The main activities were money laundering, production and trafficking of drugs, forgery, VAT-fraud and trafficking in stolen vehicles. Organised crime is still on the increase in the Russian Federation as well. Terrorism, drugs and organised crime are the most important

⁵ The Committee PC-S-CO would like to thank all the people who were interviewed for their cooperation in this best practice survey.

crime problems nowadays. Political conflicts in the southern part of the Russian Federation have led to the spreading of firearms and illegal drugs. The Russian law has a specific provision on the 'organisation of a criminal community'. Such groups usually engage in car theft, drugs trafficking, economic crime, etc. The court will handle the involvement of each member in a particular crime. When the court gets the idea that these crimes are interrelated, the provision of 'organisation of a criminal community' is also applicable. There were 110 such cases last year; approximately 75 of them were brought before the court.

Social instability in Russia has led to a rise in crime in general. Nowadays, 250,000 crimes a month are reported in Russia; three million a year. 17% of the crimes solved are perpetrated by organised criminal groups. Many judges only use one type of sanction: imprisonment. More than 1 million people are in prison now. Most of those in prison are poor and socially not adapted. One third is not yet convicted. Two amnesty decrees were issued to relieve the pressure on the system. As a result of these, about 100,000 persons were (or shortly will be) released. There is a proposal on amnesty discussed in Russian parliament, the Duma. Some argue that it would weaken law enforcement. The national clemency commission treats 12,000 cases a year. Most prisoners involved are released. The recidivism rate among those people is very low.

Some Russian experts say crime should be studied in a broad sociological manner, including the health status of society. Other scholars say that crime should be studied as a problem in itself. At the moment, the country is used to test various criminological theories. The present crime level is very high, although there is a very large prison population. Some researchers explain this by pointing to events in the last decade. But at the start of the century the country only had one tenth of the present prison population, with a similar size of the total population. The role of early socio-psychological intervention in crime needs careful study. Sending people to prison does not seem to be an effective method to combat crime. It often is an academy of crime in which dozens of millions of Russians have graduated over the last decades. One of the causes of the present organised crime problems is the fact that in the past millions of Russians were sent to prison. In the fifties, after the liberalisation of economic life, crime went down. But with the rise of economic problems in the nineties, organised crime came up again.

Already in 1991 a plan was accepted by the Duma to reform the judiciary. There should only be one investigative apparatus. But afterwards it was thought several offices should be involved, including the prosecution office. Then the state security office got their own investigative unit, then the tax police, the customs, et cetera. Still, more than 80% of cases are handled by bodies resorting under the Ministry of Interior Affairs. Criminal policy on organised crime is formulated by the Federal Security Service and the Ministry of Interior Affairs. Both have their own research institutions, which help to level out differences in policy.

1.6 CRIME ANALYSIS FROM THE POINT OF VIEW OF THE COUNCIL OF EUROPE

The Council of Europe has adopted a series of texts that should be taken into consideration. They reflect both the necessity to enhance the capacities of law enforcement authorities and the necessity to keep a balance with the respect of human rights and freedoms.

1.6.1 The necessity to enhance law enforcement capacities

In 1996, the Council of Europe adopted Recommendation N° R(96)8 of the Committee of Ministers to Member States on crime policy in a time of change. This text aims at a generalisation of modern working methods among the member States and in the fields of combating economic crime and organised crime in particular (inter-institutional co-operation schemes, specialisation of authorities, involvement of professionals and scientists in the drawing of crime policies, limitations to bank secrecy, mechanisms to enhance international criminal co-operation etc. Above all, paragraph 23 and 24 (under the section dedicated to organised crime) of this Recommendation specifically deal with crime analysis:

23. Governments should act on the basis of a strategy, in particular by using intelligence and crime analysis to achieve identified aims

24. Specialised police, investigation and prosecutorial structures should be created and vested with means to carry out financial investigation and computerised analysis systems.

As one can see, these two paragraphs encourage the development of both strategic and operational analysis, as well as the use of computer systems. These two paragraphs also indicate that analysis methodologies should not be exclusive to 'classical' forms of organised crime. As a matter of fact, substantial and quick profits are increasingly made nowadays through non-violent criminal activities in the form of pseudo-export, VAT carousels, disguised loans, so called 'illegal financing of political parties' etc. which involve several persons, businesses, companies, banks, etc. in very complicated ways in order to mask (and launder) the income of such activities. Not to mention that these crimes (also called 'white collar crimes') are less dangerous to commit, less severely sanctioned and more difficult to prosecute than drug cases or other forms of trafficking. No doubt specialised staff and computerised systems can therefore be useful to handle sophisticated information, apply typologies of crimes and compare data from various sources, in particular from abroad.

In addition, the Recommendation (2001) 11 concerning guiding principles on the fight against organised crime provides that *Member states should develop new methods of police work by shifting focus from reactive policing to pro-active policing, including the use of strategic intelligence and crime analysis* (principle N° 20). The Recommendation was under preparation at the time of the on-site visits.

This provision sets a further step, namely the development of pro-active policing which includes activities oriented towards prevention and early detection for instance. To give an example: some countries pretend to have as high as 90% of probability to become effectively confronted with a crime before starting on the spot the investigation against an operator who was identified as potential offender on the basis of data and intelligence comparison work made in the authorities' offices.

Without pretending that such a wonderful situation could become a rule throughout Europe (it depends on the level of crime in the country, on the complexity of legislation and in turn on the complexity of the modus operandi used, on the means available to the authorities and their level of specialisation, on the level of complicity within authorities, on the level of data protection, on the level of co-operation of the public etc.), it remains an illustration of what newer approaches can achieve in principle.

1.6.2 The necessity to maintain a balance with the protection of certain human rights

At the same time, the Council of Europe is developing a framework aiming at the protection of individuals against intrusive State and police measures which comprises the protection of data and privacy which are important aspects when considering the scope of crime analysis. This framework is based to a large extent on a number of recommendations and resolutions⁶ (additional studies⁷ were also produced).

⁶ Recommendation No. R (99) 5 for the protection of privacy on the Internet (23 February 1999); Recommendation No R(97) 18 on the protection of personal data collected and processed for statistical purposes (30 September 1997); Recommendation No R(97) 5 on the protection of medical data (13 February 1997); Recommendation No R(95) 4 on the protection of personal data in the area of telecommunication services, with particular reference to telephone services (7 February 1995); Recommendation No R(91) 10 on the communication to third parties of personal data held by public bodies (9 September 1991); Recommendation No R(90) 19 on the protection of personal data used for payment and other operations (13 September 1990); Recommendation No R(89) 2 on the protection of personal data used for employment purposes (18 January 1989); Recommendation No R(87) 15 regulating the use of personal data in the police sector (17 September 1987) and Second evaluation Report of the Recommendation; Recommendation N° R(86) 1 on the protection of personal data for social security purposes (23 January 1986); Recommendation No R(85) 20 on the protection of personal data used for the purposes of direct marketing (25 October 1985); Recommendation No R(83) 10 on the protection of personal data used for scientific research and statistics (23 September 1983); Recommendation No R(81) 1 on regulations for automated medical data banks (23 January 1981); Resolution (74) 29 on the protection of individuals vis-à-vis electronic data banks in the public sector; Resolution (73) 22 on the protection of privacy of individuals vis-à-vis electronic data banks in the private sector.

⁷ Report on "contracts involving the transfer of personal data between Parties to Convention ETS N° 108 and third countries not providing an adequate level of protection" (2001), by Mr. Jérôme HUET, Agrégé des facultés de droit, Professor at Panthéon-Assas University of Paris II, Director of the Centre of Multimedia Legal and Economica Studies (France), considered by the consultative Committee of the Convention 108 (T-PD); Report on "data protection in relation with surveillance" (2000), by Mr. Giovanni BUTTARELLI, Secretary General of the Garante per la protezione dei dati personali (Italy) and Guiding Principles considered by the Project Group on Data Protection (CJ-PD); Report on "Revisiting Sensitive Data" (1999), by Mr. Spiros SIMITIS, Dr h. c. Dr, Professor at Johann Wolfgang Goethe University of Frankfurt am Main, Director of the Research Centre for Data Protection (Germany), considered by the TPD; Report on "data protection in the police sector" (1998), by Mr. Alexandre PATIJN, Legal Advisor, Ministry of Justice of the Netherlands, with regard to the evaluation of Recommendation R (87) 15 on police, considered by the CJ-PD.

The corner stone of this framework is undoubtedly Recommendation N° R(87)15 on the use of personal data in the police sector. In addition to this a legally binding instrument (for the countries which ratify it) was adopted in 1981, namely Convention N°108 for the protection of individuals with regard to automatic processing of personal data⁸, whose principles are based on the provisions included in the Convention on the Protection of Human Rights and Fundamental Freedoms (ECHR).

As regards the implementation of the later, the European Court of Human rights has been very active in interpreting the provisions of article 8 and evaluating the legitimacy/adequacy of the public authorities' intervention in the exercise of the right to private life, on the basis of the second alinea¹⁰.

Preliminary conclusion: as the scope of information / data / intelligence usable for purposes of activities aiming at the analysis of crime is called upon to be widened in the course of crime analysis' development in Europe (taking into account that any piece of information can become relevant in the course of an investigation or for the purposes of policy drafting), drawing a clear line delimitating the scope of crime analysis (and the kind of data/information to be used) seems illusory. Furthermore, major challenges may arise with the development of proactive approaches and the potential conflicts carried by:

- the opposition between early detection and the principle of the presumption of innocence laid down in Article 5 of the ECHR
- the opposition between covered, intellectual working and investigative methods on the one hand, and the right to a fair trial guaranteed by Article 6 on the other hand, when it comes to the prosecution and court hearings
- the opposition between targeted preventive anti-crime policies and the principle of non discrimination laid down in Article 14 of the ECHR.

Consequently, national counterbalancing, safeguarding mechanisms (ombudsmen, independent authorities, judicial authorities etc.) shall follow the development of the discipline and in a wider perspective, the progressive redefinition of police and security forces' work in their adaptation to an increasingly sophisticated "market". That the personnel in charge of these mechanisms should be aware of the potential

⁸ It came into force on 1st October 1985 and is complemented by an Amendment to Convention ETS No. 108 allowing the European Communities to accede (adopted the 15 June 1999, entry into force: after acceptance by all Parties). An additional Protocol to Convention ETS No. 108 on Supervisory Authorities and Transborder Data Flows is also currently being examined.

⁹ Annex 1 contains the most relevant provisions of the European Convention on Human Rights.

¹⁰ In addition to cases such as Leander (1987; data relating to private life of an individual falls within the application of Art. 8 par.1), Valenzuela Contreras (1998; *the requirement of foreseeability implies that the domestic law must be sufficiently clear in its terms to give citizens an adequate indication as to the circumstances in and on which public authorities are empowered to take any such secret measures*), see for instance two recent cases: Amann (February 2000: there are no reasons not to include professional and business activities within the scope of the concept of private life; lack of indication by the existing legislation of a register kept by the Public Prosecutor's Office) and Rotaru (May 2000: applicant's opportunity to refute stored data).

of crime analysis makes them an additional target public of publications and discussions in this area.

2 Findings

2.1 THEORETICAL FRAMEWORK

“Crime analysis rests on the assumption that crimes are not totally random, isolated and unique events, but can be combined into sets sharing common features and showing distinct patterns” (Ekblom, 1988, p. 3/4). Crime analysis represents a system utilising regularly collected information on criminal incidents and individuals involved, in order to prevent and suppress crime and to apprehend criminal perpetrators. The information obtained by systematically analysing the data can be used to support management and operations. Analysis is the ‘heart’ of the intelligence process as it applies to law enforcement. The intelligence process is comprised of six distinct steps (cf. NCIS, 1999; Fahlman, 2001):

1. Planning/direction: the setting of the intelligence requirement and associated priorities;
2. Collection: the structured gathering of information;
3. Collation: the organisation of information into a format from which it can be easily retrieved and analysed;
4. Evaluation: the appraisal of information in terms of reliability (consistency) and accuracy (validity);
5. Analysis: the examination of information to discover its meaning, detect patterns and draw conclusions;
6. Reporting/dissemination: the timely conveyance of intelligence to those who need it.

In the United Kingdom a start with crime analysis was made in the second half of the eighties, whereas in Belgium, methods of analysing were introduced in 1993. In Russia, crime analysis is not recognised as a separate discipline. Therefore it is not possible to point to a specific point in time for the introduction of analytical methods and techniques. Analysis is generally understood as searching for the causes of diseases of the society.

In Belgium, the theoretical framework which was originally developed in the Netherlands and accepted by the member States of the Trevi group in 1992 is the standard model. In this model, which was also formally accepted in 1996 by the General Assembly of Interpol as an international standard, a distinction is made between operational/tactical analysis and strategic analysis.¹¹ Operational analysis is directed towards a short-term law enforcement goal with an immediate impact in mind, e.g. arrest, seizure and forfeiture. The goal of strategic crime analysis is to develop a policy, to implement a policy or to evaluate the policy based on insights into the nature of a type of crime or criminal, the scope and projections of growth in types of criminal activities. But strategic analysis need not be restricted to crime; methods of strategic analysis can be used principally for all kind of security and safety problems. Strategic analysis can deal with crime as well as with other security issues like traffic problems and public order maintenance. It starts with the question which information is needed, which data is lacking. A structured plan has to be developed and to be discussed. The next step is the detection of a problem, the consideration of a new phenomenon, the gathering of information.

¹¹ There are other conceptual frameworks on crime analysis (see e.g. Gottlieb et al., 1994, chapter 2).

In the United Kingdom in the year 2000 a national intelligence model was introduced (*National Intelligence Model, The. Intelligence products. Analytical techniques and products. A brief guide to current development work.* National Criminal Intelligence Service, 2000). The model provides a standard terminology and a framework to organise the intelligence and analytical work. It does not concentrate on serious and organised crime but is also meant for the tackling of crime and public disorder at local level and of supra-regional crime problems. However, in this best practice survey report, emphasis is laid on those elements of the model which refer to the combating of serious and organised crime.

Both the Belgian and the British model distinguish between strategic and operational (also called tactical) types of analysis, although the distinction is less clear in the United Kingdom. Until recently the term 'strategic' was only used for analysis on national and international level. The change of policy into problem oriented policing apparently helped to stimulate strategic analysis on a local level in the United Kingdom.

In Belgium it is regarded very important to keep a balance between national interests and local levels. Otherwise problems will arise in the gathering of data which are important on a national level but should be collected at local level. Strategic analysts are closely linked to policy makers in order to study the crime problems thoroughly and support policy formulation. The strategic analysis cycle is linked to the cycle of policy making (conception, implementation, evaluation), particularly to the first and to the third part of this cycle. Analysis has a lot to do with management. First you formulate a vision, than a generic strategy and thirdly an organisational strategy.

The following table gives an overview of the various types of analysis in Belgium and in the United Kingdom. Types which are more or less similar to another are placed on the same line. Annex 2 provides a glossary of terms and Annex 3 gives an example of the application of operational analysis.

Overview of types of analysis in Belgium and the United Kingdom

	Belgium	United Kingdom
Strategic	<ul style="list-style-type: none"> ▪ Crime pattern analysis ▪ Crime control methods analysis ▪ Phenomenon analysis 	<ul style="list-style-type: none"> ▪ Crime pattern analysis ▪ Results analysis ▪ Demographic/social trends analysis ▪ Criminal business analysis ▪ Risk analysis ▪ Market profiles
Tactical/operational	<ul style="list-style-type: none"> ▪ Profile analysis ▪ Offender group analysis ▪ Operations analysis ▪ Case analysis ▪ Comparative case analysis 	<ul style="list-style-type: none"> ▪ Target profile analysis ▪ Network analysis ▪ Operational intelligence assessment ▪ Crime pattern analysis

The strict distinction between strategic analysis of phenomena and persons is no longer in use in Belgium, because in practice they go together. Nowadays phenomenon analysis is distinguished from statistical/technical types of analysis. The latter are only meant to support internal functioning or the evaluation of a policy. There are two types of phenomenon analysis: 1. already known phenomena; 2. (potential) risk analysis/threat assessment (on new phenomena). The methodology of the two are different, because the second type requires data collection on new trends and (future) developments.

The Council of Europe survey team also encountered some criticism of the United Kingdom model. It seems there is not a complete understanding between the handbooks of the Association of Chiefs of Police (ACPO) and the National Intelligence Model. Furthermore, there is no standard methodology for results analysis (yet). According to some of the British analysts who were interviewed the National Intelligence Model is more useful to educate managers (especially for how to determine tasking) than it is for analysts.

In order to prioritise types of crimes in the United Kingdom, statistics are developed and broken down geographically to basic command level (which is the size of a large city). Nowadays every force in the country does crime pattern analyses. Typically one or more analysts are dealing with major incidents (murders, sex crimes, frauds, but also internal corruption). The National Criminal Intelligence Service does not conduct tactical analysis (concerning one criminal incident). NCIS analysts cannot initiate analysis projects; they rely on requests by the regional police forces. A request gets a pre-development status. Usually two people will work on it and try to build up an operational profile. There must be a source for intelligence. The analysis concentrates on finding out whether or not any individual meets the criteria of a core nominal criminal. If so, the personal data of such a suspect are stored in a particular national database on organised crime.

Operations analysis (also referred to as results analysis) is seldom conducted in Belgium as well as in the United Kingdom. Some of the reasons for this are a) that every case has a number of unique features; standard methods of investigations are often not available or not applicable, and b) it remains difficult for an analyst to criticise the work done by detectives, because they are colleagues. Furthermore, critical remarks made by civilian analysts are not easily accepted by police officers. In some major cases in the United Kingdom, a thorough review of the investigation is carried out by hired teams of specialised researchers.

Financial analysis is not regarded as a specific form of crime analysis in the three countries visited. This does not mean that financial analysis techniques are never applied. Experience in both the United Kingdom and Belgium have demonstrated the value of these techniques in investigations of fraud, money laundering and economic crime. But also in traditional forms of organised crime, such as illicit drugs trafficking, financial analysis techniques are used, e.g. to identify associations which traditional investigative procedures would fail to recognise and revealing funds which were otherwise undiscovered and which can subsequently be restrained.

The Russian representatives explained that they have all the kinds of analysis that are in use in Western Europe. They don't have a specific theoretical framework for crime analysis. Analysis is fully integrated in detective work.

Strategic reports in Russia contain descriptions of the development in a district. They are made by specific analysts that use statistics to derive trends. Common sections in such reports are: general crime, economic crime, criminal groups, etc.

2.2 THE ANALYSIS OF ORGANISED CRIME

United Kingdom police forces report every three months on organised crime. The regional offices deal with the various law enforcement organisations and some non government organisations (e.g. International Organisations for fighting fraud with CD's). 'Strategic intelligence requirements' (previously an organised crime notification scheme) are disseminated from the start. NCIS never relies on one source if possible. It is building a database for this purpose. The Service also does use open sources, including news agencies and the Internet. A national Organised Crime Strategy Group decides on prioritisation. NCIS makes impact level estimations, partly based on cost-benefit calculations. Annually, a United Kingdom-wide threat assessment on organised crime is produced.

Organised criminal groups are mainly investigated by the regional police forces, sometimes assisted by NCIS. In complex cases, which most of the investigations of organised crime are, analysts are involved. They apply various analysis techniques, including large variety of charting techniques, for example to visualise associations between entities ('link charts'), flows of money or other commodities ('flow charts'), or sequences of events in time ('event charts'). Special computer programmes help analysts to perform their job.

In Belgium, a national plan was accepted in 1996 to combat organised crime, including a definition and a short term as well as a long term development scheme. It started with a questionnaire on ongoing investigations. However, there was a lot of criticism: too much oriented on ongoing investigations and too dependent upon the capacity of the police devoted to combating organised crime. Another problem is that investigators do not get useful feedback from strategic analysts. There is also a need for a weighing system for the prioritisation of reported organisations. Recently Gent university has been appointed by the Minister of Justice to further develop the methodology. The methodology approach is seen as the key element of strategic analysis. Officers become more and more confident in this concept. Strategic analysts have to be creative, bring in a special mentality and be able to keep sensitive information confidential. The latest plan, called OCO 2000, provides a feed back system in which local police officers can get permission to use special investigation techniques when they report cases that meet the legal criteria of a criminal organisation. But the start is a check list which uses the definition of the German Bundeskriminalamt (BKA), which is different from the legal Belgian one. In the near future, as a possible consequence of the adoption of the UN convention on organised crime, the checklist might change.

Intelligence led police work is very common in the area of organised crime in Russia. Analysts systematise the incoming information. It is difficult to collect information on the heads of criminal communities because the most visible criminal activities are carried out by others. Some task groups to combat organised crime involve over 200 staff, including analysts and other specialists. Analytical reviews are produced every three months; the reports go to government and parliament. In the organised crime department of the ministry of the interior, both operational and strategic analyses are made. The method to fight a criminal organised crime group is to break the unity of such a group. On the operative level the goal of the operative analysis is to liquidate a criminal group. In the year 2000, 110 criminal organisations, involving more than 9,000 people, were eliminated. The usual starting point is that a crime has been committed, but there is no evidence. An investigation is started and the detectives co-operate with the analysts. Very often the organised crime division is not only confronted with the 'thieves in law', a rather primitive type of criminal group,

but they are confronted with economic crime, crimes of a higher level of the criminal community.

The analytical process of a criminal group starts immediately after the discovery of its existence. Police officers who are assigned to particular geographical districts make use of informers, other departments but also open sources like newspapers. The operational officers will analyse all data received on a group, systematise it, establish the reliability, inform his superiors who decide whether or not action will be taken. Informers work confidentially and give information on aspects like the strength of the group, the names or nicknames. Each individual mentioned is checked in other databases (operative registration of suspects), residence, vehicles, weapon licence and others. An operative plan will be drafted and approved by the head of a department to liquidate this group. When a conventional crime is committed, a police officer will look for a suspect, but when working on a criminal group another order is needed. Usually it starts with the individual and then look for crimes committed by the group. When the operative officers are convinced about the involvement of each individual, the head of the operative department contacts the head of the investigative office and the prosecution office (a magistrate) and discusses the whole file. Then the file is handed over to the prosecution. When there is information that someone is corrupt, a regional magistrate is involved and the district level prosecution is ignored. The prosecutor looks into co-operation between police, security organisations etc. If the prosecutors office is convinced of the existence of an '*organisation of a criminal community*' a task force is formed, including tax police and other organisations. Results of telephone tapping can be used as evidence in court. Every member of a criminal group is detained when there is ample evidence of his involvement in a crime (any type).

2.3 LEGAL ASPECTS

2.3.1 Data protection

The data protection issue has not been a problem in the United Kingdom until October 2nd, 2000. Since this date, the Human Rights Act is in power. The Act causes discussions on exchange of data, even between police forces. Data protection applies to physical individuals; not to businesses. Some banks and other companies insist that there is a court order before they provide information. There is a legal option of a pre-arrest production order under the Criminal Evidence Act 1994. Data protection rules help to maintain quality of information, because individuals can complain about incorrect registration of data and police forces don't want this type of exposure.

In Belgium, nothing has been written specifically on data protection and crime analysis yet. At the moment, some specific types of sensitive personal data (e.g. on sexual attitude or ethnicity) cannot be used for analysis. A database on violence and sex crimes of Canadian origin (VICLAS) was not introduced in the country for this reason. Perhaps the doctrine of Europol could serve as an example for the country. According to a Belgian expert in the field, judicial files, intelligence files and police proactive files could be exempt from general data protection rules. Furthermore, he emphasized that computers should not make the decisions; the analysts should remain responsible. The data protection law should not be specifically made for particular databases; it should be independent from hardware and software.

In Russia, data protection does not seem to be an obstacle for crime analysis. This can (at least partially) be attributed to the circumstance that all analysts are police officers who are only using data gathered by the police itself.

2.3.2 Role in criminal proceedings

In the United Kingdom, first level analysts are working not for intelligence analysis but for evidential purposes. They are prepared to appear in court; intelligence analysts usually are not. Especially since the coming into force of the Human Rights Act, there is serious concern how to protect public interest by not disclosing evidence. Analysts are regarded as being vulnerable, because they are responsible for the analysis, not for the collection of data.

United Kingdom analysts are not considered to be expert witnesses. Analysts have to document every step they take because they might be called in the court. They have to appear before the court and they are questioned by the prosecutor's service and the defence. Analysts have to stand in the "line of fire" and are not prepared. In the view of some people the survey team spoke to, special training should be provided for them. The difference between the work of an analyst and a police officer is that a police officer only can be asked about what he has heard and what he has seen, an analyst has to get beyond this and s/he has to make arbitrary decisions. Problematic is the fact that not all possibilities in a case are investigated. Defence lawyers more and more challenge the methods used by law enforcement. As long as the analyst keeps a good audit trail, he can prove what he did and explain why he did it. Nowadays, some defence lawyers are employing analysts themselves.

At the moment there are no clear regulations regarding the information that should be given to the defence in Belgium. In practice, the magistrate decides what will be included in the court file.

Russian analysts do not appear in court; if necessary, cases are explained by the head of the organised crime unit.

2.4 INSTITUTIONAL ASPECTS

2.4.1 Organisational setting

There are about 2,000 analysts working in the United Kingdom. Most forces have a concentration of analysts on headquarters and divisional analysts. Both organisational embeddings have pros and cons. Problematic is the development that regional forces are employing more and more analysts but they are not paid similarly to those working on national level. The salary of some senior analysts working at NCIS is better than that of first grade police officers.

There are 56 analysts in a total staff of about 700 in NCIS. Analysts are not seconded at the Service but directly employed. At the moment there are 7 strategic analysts working within NCIS headquarters. Every one of the 6 regional offices also has at least one strategic analyst. The goal of NCIS is to provide their customers with tactical and strategic intelligence on serious and organised crime, nationally and internationally. The framework for the Service was the Police Act Section 2, of 1997, where it is stated that the functions of NCIS are to gather, store and analyse information in order to provide criminal intelligence; to provide criminal intelligence to police forces in Great Britain, the Royal Ulster Constabulary, the National Crime Squad and other law enforcement agencies, and to act in support of such police forces, the Royal Ulster Constabulary, the National Crime Squad and other law enforcement agencies carrying out their criminal intelligence activities.

In the recent past, co-operation between Customs and Excise and police used to be not very good; NCIS (whose staff is partly police, partly Customs and Excise) is acting as a mediator nowadays. The Association of Chiefs of Police (ACPO) is trying to get a memorandum of understanding with Customs and Excise to enhance co-operation. A multi agency approach is still under development. A data manager (already working within Customs) can control the funnel through which data can be exchanged. There are widespread officer exchange mechanisms with municipalities (department of social security).

In the London Metropolitan Police, half of the analysts are working in the boroughs, but it isn't working well. According to an interlocutor, they should be concentrated in one organisational unit. This could help make them more professional. The central analytical service provides their customers with operative, intelligence, and strategic analyses. In the analysis procedure the quality of data can be a problem. There can also arise conflicts between the analyst and the senior investigator.

An important problem is the communication problem between managers and analysts. A lack of communication and understanding is very often evident. Analysts have to show that they are personally reliable. Analysts are concerned about middle and senior management who not always use analysis correctly due to a failure to appreciate its contribution. For the police there exists the problem that it is difficult to keep analysts. Once police officers have been taught as analysts, very often they get a better offer by private companies. Therefore in reality 80% of analyses are done by civilian analysts and 20% are done by police officers. The practical experience is that analysts are mainly young, civilians, females. If they are officers than they are mostly of low rank. These factors causes problems in the communication process with the managers.

There is now a tendency to employ more police officers because they are already trained in law, appearing in trial, et cetera. Until recently, civilians were cheaper. The fact that two people are paid differently although they are doing the same job is not very motivating for the civilian analyst. The career path for an operational analyst within NCIS is rather limited: (s) he can only become a senior analyst, a strategic analyst or a manager.

Consequently, many of them leave the discipline after a few years.

In the new police structure in Belgium there are strategic analysts on national and regional level. In some large local units there are also strategic analysts.

Within the Russian police, only experienced police officers are involved in the fight against organised crime. All organised crime departments are divided into units that specialise in particular types of crime, e.g. hold ups, economic crime. In daily investigation practice there is no co-operation between research institutes and the police.

Russian criminological research institutes employ lawyers, sociologists, psychologists, et cetera. Non governmental research institutes, including the criminological association, help policy making on general level. They study the main trends, criteria on organised crime, etc. They also draft law proposals.

Analysts are working on three levels:

1. scientific research institutes doing theoretical (criminological) work
2. scientific departments within the ministry of interior affairs
3. analytical divisions of the general department of combating organised crime.

The Ministry of Interior has analysts on all levels.

As elsewhere, there sometimes is rivalry between different agencies in Russia. Since Perestroika, there are constant reorganisations within law enforcement. The Federal Security Service has also undergone several transitions and has received the task to fight economic crime. The internal revenue service got its own investigation department. Co-ordination has become more difficult because of these reorganisations but remains indispensable. The weak infrastructure hampers co-operation. The Ministry of the Interior will remain the largest law enforcement agency. The bulk of the functions of combating crime is carried out by this institution, including prevention, investigation of crime, et cetera. It is also responsible for enforcing the law, preserving public order and public security.

2.4.2 Selection and training

In the United Kingdom, some crime analysts have a police background, but most of them do not. Basic training for analysts only takes four weeks. Until now there exists no national training program and no national selection standards. Analysts are of the opinion that there should be developed programs which specify what training an analyst needs and to what extent is there a specialisation. In-service training should be part of a career structure. There is a national Working Group specifically dealing on training and professional development. A NCIS employee is chairman. There is a national training program for analysts since six years, although the content is still under development. Until now, the local police do not have a training course. In 2001 two national courses, one for operational and one for strategic analysis, will be organised. The strategic course will take about three months (full time).

United Kingdom analysts do not specialise generally (with the exception for strategic analysis). There is only a minimal amount of training in strategic analysis. This concentrates on research methodology. Only a few analysts are trained in statistics. There is a trend of job descriptions of analysts becoming more specialised. Until now there is no vocational qualification standard. This certification is especially important for the career opportunities for civilian analysts. Already there is a masters degree in Criminal Intelligence Analysis. A barrier for standardisation is the fact that some commercial enterprises are also involved in training. But police forces are making money this way too. The Metropolitan Police is recruiting graduated staff, with knowledge of criminology, psychology, international law, et cetera. Formally, the degree is not relevant, but in practice it is.

Most United Kingdom analysts working within the government are managed by police officers. There are training courses for managers for intelligence units which include analysis topics. For law enforcement managers in the United Kingdom, there are 'analytical techniques awareness courses' developed recently. Frequently asked questions by managers are: what does an analyst need for resources. There is generally a lack of understanding of what analysis is. Many managers do not know how to handle a lack of relevant data and what type of training does an analyst need (e.g. for court appearances, law on disclosure).

Until now, only two awareness courses were organised in Belgium. There are plans to continue this type of training after the new police structure has been put in place. One of the problems is that there are no training opportunities in this field for prosecutors and magistrates.

Belgium clearly distinguishes between operational and strategic analysis. They are carried out by different people, because the purposes are different, although they use the same types of data. Analysts are primarily officers from Police or Gendarmerie. Civilians are not employed as operational analysts within the Gendarmerie. In the Gendarmerie all strategic analysts need to have an academic degree, mostly social sciences, but any degree will do. They are all civilians. This is also the case for local police forces. There are 55 operational analysts, of which 19 part time, within the judicial police. They are all police officers, because of the trust among colleagues and knowledge of judicial matters. But the mentality of an investigator is different from that of an analyst and this could be an obstacle. It is not clear what will be the situation after the change in the police structure. The strategic analysts in the BNB have following profile: analytical mind, experienced in working with common software packages (including word processing and graphical software), good knowledge of the second national language (Flemish or French), sociable.

In Russia, the basic training for a detective takes four years, which includes some training on analytical work. The officers in the organised crime unit are higher educated, mostly academics. In the organised crime-department additional training is given, e.g. in economics. There are refresher courses every 3 months. In general, police detectives also perform analytical work. Detective-analysts are specialists in particular types of crime. Many have academic degrees, not only in law but also in other areas, e.g. economics. They do not receive special training in analytical methods and techniques. No distinction is made between investigative and analytical work. In the criminology course at the police academy both the analysis of crime and the forecasting of crime are included. Also the course on operational activities touches the subject of analysis. There is also a post-graduate course which handles the subject (especially scientific research issues).

Russian staff officials are full time involved in analysis; they do not have other obligations. There are no civilians involved in criminal investigation at the moment. There is one exception. The law on criminal procedure allows expert witnesses to provide expert opinions during a trial. These people should be scientists. Civilians cannot be part of investigative teams. The use of civilians is regarded as not possible because of the risk of leaking.

2.4.3 Communication between analysts

The British computer firm I2 runs a number of user groups that deal with a lot of problems of analysts. But they do not relate to academics and the fact that they are a private company is also a complication.

There are several international organisations for analysts, such as the International Association of Law Enforcement Intelligence Analysts (IALEIA – see www.ialeia.org) and the International Association of Crime Analysts (IACA – see www.iaca.org). These non-governmental organisations provide analysts with concrete (and sometimes moral) support in a context of progressive recognition of the profession, particularly as regards civilian analysts. IALEIA was formed in 1980 and is meant as a platform for crime analysts. It offers support to agencies and analysis on best practices, recruiting, et cetera. The United Kingdom Chapter is one of the largest in the world.

2.5 ACCESS TO AND QUALITY OF DATA

United Kingdom crime analysts have access to various databases, but they are all under legal procedures. Technical problems (e.g. differences in data format) are more

important barriers. Also incompleteness and low quality of data form a constant problem. E.g. only 50 to 60% of cases that should be, really are reported to the National Crime Faculty. Training and feedback are ways of improving the situation. For crime prevention often the wrong information has been collected. A project on modus operandi of vehicle thefts failed because of this. Crime scene officers need to be trained. A possibility to improve best practice is for an analyst to go to a crime scene or observe an interrogation and check what types of data could be collected that are not reported normally. Also analysts pointing towards omissions in the data give feedback which in the long run leads to improvements.

Only recently United Kingdom law enforcement analysts have started to use data from other agencies than law enforcement. Shortage of resources is one of the major problems. Commissioning (outsourcing to) academic researchers does not happen frequently. One of the reasons for this is that scientific researchers use different methodologies, which are not always applicable to police data, e.g. because data on suspects are not representative for the whole population. Furthermore there are important cultural gaps between disciplines, which can lead to a lack of trust. Also the wish for publication is causing problems, as is security; academic researchers don't get access to all restricted data. Usually, there is a negotiation phase with the client on the scope and limitations of an analysis. Special intelligence services are tasked sometimes to gather data, e.g. on immigration or on trafficking nuclear materials.

At NCIS, it happens every day that requests for analysis come in that do not meet the criteria e.g. for attaching evaluation codes to information. One of the biggest problem is the lack of legal obligations for communication firms to provide information to law enforcement. Another difficulty for NCIS is to convince investigation teams that the Service only feeds back what the police has given it in the first place.

In the United Kingdom, a 5x5x5 matrix is in use for the evaluation of the quality of data. The three dimensions of the matrix refer to the reliability of the source of information, the accuracy of the contents and the handling of the information. For each dimension, five categories are distinguished (NCIS, 1999, p. 12).

Belgian police forces use a similar, however somewhat simpler evaluation matrix, called the 4x4 system. The two dimensions refer to the reliability of the source and the validity of the information itself.

There are information centres on the various geographical levels in Russia. Every day the criminal incidents of the last 24 hours are analysed and discussed on management levels. Informers are the most important source of information on organised crime. Authorised persons get all necessary information. Individual suspects are registered on a regional level.

In Russia there are interdepartmental guidelines on exchange of data between various agencies, like police, customs etc. At the moment, work is done by the office of the procurator general to build a database for all law enforcement bodies on ongoing investigations. At the moment a police officers can request the tax agency for any information on a suspect. For the most dangerous, international operating criminal groups, specialised task forces composed of representatives from various law enforcement bodies (including security services) are established. Analysts have access to classified material because they all are police officers.

2.5.1 Information systems

In the United Kingdom each police force has its own IT system. Although there is a national data model, it is not implemented everywhere. There is no national intelligence system. However, there is a national database on suspects ('flagged') under investigation. About 20% is analysed by NCIS. The national intelligence database can be accessed indirectly, through NCIS, by any law enforcement officer. It is expected that the Schengen Information System (and Sirene) will be placed within NCIS as well. Drug Liaison Officers are placed from NCIS in other European countries and a number of foreign officers are placed at NCIS. Until now it is difficult to cross search databases, since they are not running on the same platforms. This will probably change in the near future.

Russian analysts can use databases of the Ministry of the Interior: one on persons having committed crimes and on wanted persons. There are also specialised databases on types of crime (including drugs, arms, etc), and a fingerprint collection. Also there is a large statistical base on (reported) crime. Standard forms are filed by field officers and statistics on the crime situation are based on an analysis of these forms. Databases can also be used for research purposes. There is not an analytical section within the information centre. The organised crime-bureau has its own databases which contain secret data. Aggregated (quantitative) data are sent to the general information centre.

2.5.2 Impact of analysis

Experience in Belgium shows that policy makers on various levels do not always show interest in crime analysis and its results. Recently, the government has published a national (federal) security plan. The ministers of Justice and Internal Affairs will have to 'translate' the plan to the police level. On local and regional levels the plan should be worked out and compared to the security situation within each municipality and regional zone. It is expected that chiefs of zones will use strategic analysis more and more, e.g. to check which of the nine priorities mentioned in the national plan are relevant in their territory (Van Thielen, 2001, p. 57). Because of a general lack of resources within the police, choices need to be made about their allocation. Analysis helps to make these choices in a more objective manner.

In Belgium, the influence of an operational analyst on the investigation should not be exaggerated. Of course he is the person who sees all the data and has the opportunity to formulate recommendations, which steer the investigation. It seldom happens that recommendations are refused, because the analyst can (and should) explain how he had derived them. In practice, the analysis is conducted by the analyst by himself, but the recommendations can be formulated in co-operation with the case officer. If recommendations of analysts are not followed the analyst tries to sit together with the case-officer and to talk. Often the analyst is working behind; there is a delay in the information received. This can result in recommendations that are already outdated.

United Kingdom police tend to view civilian staff as support and not as a professional discipline on its own. Also for police analysts, if they want to make promotion, they need to leave analysis. Sometimes an analyst is the only civilian in a large, multidisciplinary team which causes problems. Middle management awareness is probably the most important aspect. But one should start with senior management. Leadership is essential for the acceptance of analysts and analysis. Also analysts should take full responsibility for the conclusions and

recommendations they formulate. However, some analysts are afraid to make mistakes and therefore stick to the data very closely. This hampers analysis, as analysts are supposed to come up with a good picture of the crime situation, derived from incomplete data which are not always confirmed by other information. On the other hand, analysts should not speculate too much, finding patterns which are not really present in the available data. The distinction between facts and hypotheses should be made as clearly as possible. Mistakes can have serious consequences. For analysts who fail in this respect, an overriding insurance against malpractice could be useful. In general, successes of analysts on operational level have proven to be most helpful for gaining recognition by other disciplines.

Acceptance of analysis is sometimes difficult because the performance of analysts is hard to measure. Some organisations in the United Kingdom use surveys or feedback sheets to measure the effectiveness. They often do not get a reply. Sometimes a formal review takes place in which every analysis is also checked. Main reasons for failure seem to be the personal qualities of the analyst and the understanding by the management. Some analysts give up and turn into data processors. Some want to stay on the safe side and do not go beyond the level of the data. Change is going on from intelligence analysis towards more statistical, strategic types of analysis. The acceptance of statistical is less than that of intelligence, because investigators do not know how it is done. In the London Metropolitan Police, it is the volume of crime which really caused the change. Also the setting of specific targets by the Home Office has driven managers to request crime pattern analyses.

Analysts in Russia do formulate recommendations for the commanding officer. As far as known, there are no problems concerning the acceptance of the results of analyses.

2.5.3 Quality control

“Crime analysis is an exploratory process; it is more akin to composing a picture than to the slavish following of the fixed steps of a cookery book. It follows that people who carry out crime analysis need, above all, to appreciate the essence of the approach, its context, objectives and limitations” (Eklblom 1988, p. 1).

United Kingdom analysts are quite free in their work. To check the quality is almost impossible, because the variety of data processing methods is large. Also the time dimension of analysis is critically important. Typically an analyst has to decide very frequently if (s)he is going to use a particular piece of information and if so, how. There is also a feed back form in analysis reports, but not many are returned. Usually all steps taken by an analyst are in a log book; open for investigation review commissions (which operate only in major investigations). The report usually does not contain a full description of the work done, but it does contain a line which says that full documentation is available upon request. Furthermore, there are best practice guidelines (on national level) and some forces use peer reviews, for instance the National Crime Faculty. For the annual report on organised crime a large group of people (about 30) is used who read the draft before it is finalised.

Good practice toolkits are prepared for particular types of crimes or criminals. One is an intelligence toolkit (Best-practice guidelines for criminal intelligence analysts, NCIS, August 1999).

2.6 FUTURE OF CRIME ANALYSIS

United Kingdom There is an increasing demand for quantitative, strategic analysis. The tendency to lay emphasis on crime reduction instead of law enforcement makes it necessary for decision makers to rely on analysis more and more. In the future, analysts will not only analyse crime data but more broad results analysis, including other types of organisational processes within law enforcement. In Belgium, there is a similar trend, of strategic crime analysis broadening into strategic (security) analysis. Another tendency in both countries is the increase of risk analysis and threat assessment. This way, analysis becomes more future oriented albeit by studying the trends in past and present.

The answers for the future of crime analysis in the United Kingdom have to be a focus on:

- Research methodology
- Project management
- A legal basis for the exchange of data in respect of the Human Rights Act
- Guidelines and code of ethic as best practice guide.

In Belgium, the concept of strategic crime analysis tends to become 'strategic analysis' on order to deal with crime as well as with other security issues like traffic problems and public order maintenance. Another tendency is the increasing importance of risk analysis and assessments of the threat caused by organised crime.

In Russia, no clear tendencies for the future of crime analysis were mentioned to the survey team.

3 Conclusions and suggestions

3.1 CONCLUSIONS

1. Among the three member States which were included in this Best Practice Survey, the survey team considers it possible to distinguish some strong and weak points:

	Strong points	Weak points
United Kingdom	<ul style="list-style-type: none"> ▪ A very professional approach to the ideas of analysing ▪ Excellent selection and education of young analysts ▪ University and research background of strategic analysts ▪ High standard output of studies and recommendations 	<ul style="list-style-type: none"> ▪ Lack of regulations about communication ▪ Communication between management and analysts is not optimal ▪ No proper career structure ▪ Problem of court appearance as witness
Belgium	<ul style="list-style-type: none"> ▪ Systematic approach to crime analysis ▪ Good research and development on new methods and techniques 	<ul style="list-style-type: none"> ▪ Effect of the police reform on analysis remains unknown ▪ No clear data protection rules
Russia	<ul style="list-style-type: none"> ▪ No problems with the acceptance of analysts within law enforcement ▪ Full access for analysts to all relevant data ▪ Excellent co-operation with academic research institutions 	<ul style="list-style-type: none"> ▪ No infrastructure for crime analysis ▪ Incomplete use of the added value of analysis ▪ No quality assurance system

2. It is useful to view crime analysis as a separate discipline. It is typical for crime analysts to work under time constraints, with data which are incomplete, hard to compare and not fully reliable. The type of work is different from other law enforcement functions, requires particular personal qualifications and special training. The characteristics of the analytical function are hard to combine with those of the investigative function, *inter alia* because many detectives tend to draw conclusions before they have examined the available information in depth.
3. Anticipating trends is becoming more and more important. However assessing future trends is an extremely complex matter. Furthermore, crime analysts should be aware that many societal problems cannot be solved by law enforcement (be it preventive or repressive) activities alone.
4. Organised crime is considered to be a very important problem in all three countries. All of them apply crime analysis as a means to combat organised crime more effectively. In comparison to traditional types of crime, organised crime is characterised by an absence of the unity of time, place, perpetrator and activity. Crime analysis is a powerful instrument for the fight against organised criminal groups, because it provides a number of methods and techniques to gain insight into complex relationships between suspects, criminal activities, et cetera. But crime analysis can be used (and is so in practice) for the prevention and repression of other types of crime as well, both complex ones (e.g. fraud) and mass crime.
5. Analysis is becoming a real profession (at least in the United Kingdom and Belgium) as a consequence of the better tools, increased awareness of its effectiveness among managers, embedding in pro-active police work, et cetera.

6. Theoretical frameworks are helpful, not only for assisting in the awareness training of managers but also for supporting the exchange and understanding of analytical products.
7. There is not a single best way to organise crime analysis, but integration of operational analysis into the investigative process and of strategic analysis into the policy making cycle are very important. Especially for operational analysis it is highly relevant that they are involved in an (complex) investigation from the very start or as soon as its complexity becomes apparent. For strategic analysis it is vital that the purpose of the analysis is clear. When is what reported by whom, how it is done and why – these are some of the important issues to be addressed in order to enhance the quality of a strategic analysis report.
8. Numerous sources of data can be addressed, both within and outside law enforcement.
9. Access to data frequently causes problems, especially access of databases outside law enforcement. There are often technical problems, but even more important are legal obstacles. Data protection rules sometimes hamper access to relevant data.
10. Evaluation systems for data, such as the 4x4 system (Belgium) or the 5x5x5 system (United Kingdom) help the analyst.
11. Automation makes the job for analysts one the one hand easier (more powerful instruments), on the other hand more complex (e.g. because s/he needs to address more databases and other sources).
12. There is an enormous array of methods and techniques for crime analysis. There are even more under development, including a number of computer assisted techniques.
13. Quality assurance is difficult, especially of operational/tactical analyses. Analysts need to organise feed back.
14. Employment of civilians as crime analysts has pro's and con's.

Pro are:

- lower costs (because they do not need to get the usual police training);
- potential higher level of professionalism, as they can be specifically selected for administrative (analysis) positions and more easily acquire a lot of experience in the field, whereas police officers generally are less attracted to administrative work and often need to move to another position in order to make a career
- no risk of misusing them for non-analysis functions during vacation periods or to assist short-staffed units
- no reduction of the strength of the patrol force; civilians are not presumed to work in the streets.

Contra are:

- less knowledge and experience of police operations (at least in the initial phase of their functioning within law enforcement)

- less easy acceptance within law enforcement; police analysts get more credibility from colleagues who will share information and accept analysis results more easily
- civilians do not always get access to relevant data because of the presumed greater risk of leaking
- if there is no clear career path for civilian analysts, they tend to leave law enforcement if they can get a better job elsewhere.

15. Employment of academics is especially useful for strategic assessments.

16. In many places there is a lack of uniformity of understanding about the role and function of crime analysts. In the United Kingdom, an increasing number of people are employed to do this type of work, but they operate under a great variety of job descriptions, and they obtain the posts by a number of different routes. Awareness training courses help to let senior management accept crime analysis and its products.

17. The role of the analyst is to advise the authorities; they are responsible for the decisions taken on the basis of an analysis. But the analyst remains responsible for the quality (including legitimacy) of the analytical product.

18. The absence of a common terminology hampers the international communication between analysts and the effective use of foreign analytical products.

3.2 SUGGESTIONS

1. Member countries of the Council of Europe which do not have crime analysis units should consider establishing them. Setting up an analysis environment in a country depends on the present infrastructure, culture, et cetera. A pilot or demonstration project is often useful to ensure acceptance, especially at the operational level. It is very important to get a senior police officer involved.
2. Member countries should consider intelligence led policing as a good strategy for combating organised crime.
3. Member countries should standardise the terminology and approach to crime analysis.
4. An international glossary of terms and definitions (and perhaps even a standard theoretical framework) should be made in order to improve co-operation (especially exchange of analysis products) on the international level.
5. Member countries should let crime analysis carried out by specially selected and trained staff. Salaries of analysts should be in accordance with their position; an appropriate ranking can help to integrate analysis in police work.
6. Member countries should initiate international training courses and international conferences for analysts.
7. Member countries should apply crime analysis on various geographic levels.
8. Member countries should stimulate the co-operation between institutions, especially regarding the exchange of data which can be useful for crime analysis.
9. Member countries should organise awareness training courses for law enforcement managers as well as for representatives of other parts of the penal law system, such as public prosecutors and judges.
10. Member countries should pay special attention to the role of the analyst and the analysis products during trials. For this reason, it may be necessary to distinguish between the functions of criminal intelligence analyst and tactical analyst.
11. Crime analysts should establish peer reviews and feed back mechanisms in order to assure product quality, ascertain that analytical products are an adequate response to clients' needs and check the proper use of these products by clients (and others).
12. Member countries should encourage the exploration of new methods and techniques for analysis (including financial analysis techniques and methods and techniques for risk analysis and threat assessment) and inform each other on the findings of such endeavours.

4 Appendices

4.1 REFERENCES

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4.2 RELEVANT PROVISIONS FROM THE EUROPEAN CONVENTION ON HUMAN RIGHTS

Article 5 – Right to liberty and security

Everyone has the right to liberty and security of person. No one shall be deprived of his liberty save in the following cases and in accordance with a procedure prescribed by law: a) the lawful detention of a person after conviction by a competent court; b) the lawful arrest or detention of a person for non-compliance with the lawful order of a court or in order to secure the fulfilment of any obligation prescribed by law; c) the lawful arrest or detention of a person effected for the purpose of bringing him before the competent legal authority on reasonable suspicion of having committed an offence or when it is reasonably considered necessary to prevent his committing an offence or fleeing after having done so; d) the detention of a minor by lawful order for the purpose of educational supervision or his lawful detention for the purpose of bringing him before the competent legal authority; e) the lawful detention of persons for the prevention of the spreading of infectious diseases, of persons of unsound mind, alcoholics or drug addicts or vagrants; f) the lawful arrest or detention of a person to prevent his effecting an unauthorised entry into the country or of a person against whom action is being taken with a view to deportation or extradition.

Everyone who is arrested shall be informed promptly, in a language which he understands, of the reasons for his arrest and of any charge against him.

Everyone arrested or detained in accordance with the provisions of paragraph 1.c of this article shall be brought promptly before a judge or other officer authorised by law to exercise judicial power and shall be entitled to trial within a reasonable time or to release pending trial. Release may be conditioned by guarantees to appear for trial.

Everyone who is deprived of his liberty by arrest or detention shall be entitled to take proceedings by which the lawfulness of his detention shall be decided speedily by a court and his release ordered if the detention is not lawful.

Everyone who has been the victim of arrest or detention in contravention of the provisions of this article shall have an enforceable right to compensation.

Article 6 – Right to a fair trial

In the determination of his civil rights and obligations or of any criminal charge against him, everyone is entitled to a fair and public hearing within a reasonable time by an independent and impartial tribunal established by law. Judgement shall be pronounced publicly but the press and public may be excluded from all or part of the trial in the interests of morals, public order or national security in a democratic society, where the interests of juveniles or the protection of the private life of the parties so require, or to the extent strictly necessary in the opinion of the court in special circumstances where publicity would prejudice the interests of justice.

Everyone charged with a criminal offence shall be presumed innocent until proved guilty according to law.

Everyone charged with a criminal offence has the following minimum rights: a) to be informed promptly, in a language which he understands and in detail, of the nature and cause of the accusation against him; b) to have adequate time and facilities for the preparation of his defence; c) to defend himself in person or through legal assistance of his own choosing or, if he has not sufficient means to pay for legal assistance, to be given it free when

the interests of justice so require; d) to examine or have examined witnesses against him and to obtain the attendance and examination of witnesses on his behalf under the same conditions as witnesses against him; e) to have the free assistance of an interpreter if he cannot understand or speak the language used in court.

Article 8 – Right to respect for private and family life

Everyone has the right to respect for his private and family life, his home and his correspondence.

There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others.

Article 14 – Prohibition of discrimination.

The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

4.3 GLOSSARY

Case analysis (Belgium): establishment of the course of events immediately before, during, and after, a serious offence.

Comparative case analysis (Belgium): identification of series of crimes with common offenders by seeking similarities between offences.

Criminal business profile (United Kingdom): examination in detail how illegal operations/businesses and techniques work.

Crime control methods analysis (Belgium): evaluation of (investigative or preventive) methods and techniques with the aim of establishing their future usefulness.

Crime pattern analysis (Belgium): examination of the nature and scale of crime within an area and within a time frame.

Crime pattern analysis (United Kingdom): examination of the nature and distribution of crime within an area, in order to identify emerging and current trends and patterns, linked crimes or incidents, hot spots of activity. Includes crime trend identification, crime series identification, general profile analysis and hot spot analysis.

Demographic / social trend analysis (United Kingdom): examination of the nature of demographic changes and their impact on criminality, as well as the analysis of social factors (e.g. unemployment) which might underlie changes in trends in offending patterns. Also to describe statistically the constitution of the population of a given area and the associated economic indicators with reference to law enforcement requirements.

General profile analysis (Belgium): identification of the typical characteristics of perpetrators of certain crimes.

Investigations analysis (also referred to as: operations analysis; Belgium): evaluation of the effectiveness of activities that are undertaken within the context of an investigation

Market profile (United Kingdom): a survey of the criminal market around a given commodity (e.g. illicit drugs, stolen vehicles). It can include crime pattern analysis and network analysis.

Network analysis (United Kingdom): provision of a detailed picture of the roles played by individuals, the nature and significance of the links between people and the strengths and weaknesses of the criminal network.

Offender group analysis (Belgium): examination of the structure of a group of suspects, the significance of each member and their involvement with criminal activities.

Operational crime analysis (Belgium): category of types of crime analysis designed to support the investigation of one particular crime or one specific series of crimes with common offender(s). Aims to provide an understanding of the information collected during a specific investigation.

Results analysis (United Kingdom): evaluation of the effectiveness of law enforcement activities.

Specific profile analysis (also referred to as: offender profiling; Belgium): construction of a hypothetical picture of the perpetrator of a serious crime or series of offences on the basis of crime scene data, witnesses' statements and other available information.

Strategic analysis (Belgium): category of types of crime analysis designed to aid the formation or the evaluation of crime policy. Aims to provide information which can provide a picture of a phenomenon, and which can identify trends in criminality on which management can base their decisions.

4.4 EXAMPLE OF THE APPLICATION OF OPERATIONAL ANALYSIS

Introduction

The following case study was kindly provided by Howard Atkin, Detective Sergeant of the West Yorkshire Police of the United Kingdom. It is meant as an example to illustrate the working method of a crime analyst and of some charting techniques in a concrete case. To avoid problems with the readability of copied illustrations, the charts which accompanied the original text were left out.

The start of the investigation

During a 21- month period, a series of daytime sneak-in burglaries of commercial premises took place where company cheque books were stolen and individual cheques from these books cashed for small amounts before the victims noticed their absence. These were relatively minor offences when considered individually, so it was understandable that some time had passed before separate offences were linked together and a pattern emerged which indicated a substantial organised crime operation was involved. It was at this point that these inquiries were passed to a crime analyst.

This in itself created problems for the analyst in that right from the start of the enquiry a large volume of complex information already existed. In addition, much of this information was incomplete, of dubious quality and relevance, and it related in the main to historical rather than current events.

The operational priority at the start clearly had to be to try and identify what crime pattern(s) were present, how they operated, and who were the principal offenders, both historically and at the present time, and then to formulate an enquiry plan which worked from this general area to focus on specific offenders and obtain detailed evidence towards preparing a prosecution case. That having been said, actually reviewing the available information in a methodical, planned manner, and formulating a structured enquiry plan from these basics is perhaps both the most crucial and the most difficult step for an investigator to get right, which is precisely where crime analysis can assist.

The start point for the analyst was to examine the information available about the basic crime pattern. The victims were commercial organisations who as part of their business practice generally had multiple company cheque books and bank accounts, together with complex account checking procedures. Their premises were also very accessible during business hours, with comparatively low security for office areas. The cheques stolen from them were being used to divert company funds in relatively small amounts in the period between the books being stolen and the discovery of the theft/stopping of the cheques.

Formulation of hypotheses

On the basis of the information on the basic crime pattern the analyst reasoned that for the offenders, targeting these victims had advantages in that they were relatively vulnerable in two key areas, firstly in identifying intruders, and secondly in noticing missing cheques/monies in the short term. It also had certain disadvantages however, namely that monies had to be transferred quickly after the cheques were obtained, and that the transfer of funds into bank accounts gave a potential link to the offenders.

Understanding these factors was a useful starting point for the investigation, in that it encouraged theorising about how the offenders had approached the operation as a whole, including planning, preparation, and resourcing, rather than focusing on just the end result of the crimes themselves. If the offenders were going to maximise their gain from any particular theft, then a system for diverting funds to accounts quickly needed to be established before the theft(s) took place. Similarly, if they were going to escape detection, they needed a system which masked both their identities, and the link between their funds and the stolen funds.

Activity charting

From this theorising, it was possible to utilise a technique known as ‘activity charting’ to focus on distinct parts of these activities and the sequence in which they may have occurred. Using this chart, the next step was to review the available information to see if it fitted the (still hypothetical) pattern in any way. From this point in the investigation the use of analytical software enabled the questioning and charting of the data to be carried out both in more depth and more quickly than would have otherwise been possible.

The initial review of the data supported the activity chart in that it identified monies moving between some 206 separate accounts, belonging to 85 different people, using 32 addresses. This in itself suggested that certain people had more than one account, and certain addresses were being used by more than one person. The activity chart focused on the need to break the link between the stolen funds and the offenders, which it suggested could be achieved in two ways; firstly by ‘bouncing’ funds around several accounts, and secondly by concealing the offenders real identities behind false identities/aliases. Three separate questions arose, namely how were the people involved linked to each other, what bank accounts were they linked to, and how were the various accounts linked to each other by movement of funds.

Link charting

The next step was to try and answer those questions, examining the whole of the available information with a logical series of simple steps, the first being to establish what links between people were known to exist. A computer-generated link chart showed that of the 85 known individuals, four were in fact using other names as aliases. These four individuals between them controlled 23 names; a quarter of those known. Whilst it could well have been that other names were also relevant, but not linked due to insufficient information at that time, clearly even at this stage this information enabled the enquiry to prioritise its focus in the most specific and relevant areas. In addition to the false identities, it was also possible to establish very easily the associations between these four (and their aliases) with known addresses; in fact between them they were linked to 13 addresses, over a third of the total.

The link (if any) to the proceeds of the criminal operation for these four individuals would necessarily be via bank accounts they controlled, which was the next question asked of the available data. In each case, control of accounts by the individuals themselves or indirectly through their aliases was established. This revealed that these four individuals had direct or indirect control of 55 accounts, over half of those known, the combined information from all these queries being summarised as follows: Suspect A: 2 aliases, 3 accounts, 1 address; Suspect B: 3 aliases, 12 accounts, 3 addresses; Suspect C: 5 aliases, 15 accounts, 5 addresses; Suspect D: 9 aliases, 25 accounts, 4 addresses.

A complete integration in link chart form of the alias, account, and address links between these four showed that three of the four were linked by addresses which they and/or their aliases shared, whilst the fourth has no shared aliases, accounts, or addresses. Whilst this may be a product of inaccurate and/or incomplete information, of itself it might infer that the criminal operation was divided into two parts, perhaps on the basis of where that part of the operation was located geographically, or due to separate parts having separate responsibilities, or even due to sharing of power or control between individuals.

Analysis of the money flow

Having thus explored the information for patterns separate from the actual transfer of funds, the next logical step in the process was to identify transactional links (fund transfers) between the accounts themselves, looking at how money was moved between all accounts (not just those controlled by the four identified targets), since this was the obvious route for the stolen money. A chart was made in which lines between accounts represented transactions, i.e. movement of money between the accounts. The main accounts were automatically placed in a large circle. The accounts round the circle represent those between which money was 'bounced' ; it was clear that this part of the operation was very complex, and would certainly achieve the objective of masking any link between stolen money entering this system, and money leaving it.

The chart also showed several accounts not linked to the main group, and some not linked to any other accounts at all. This again served as a visual warning to the analyst of inaccurate or incomplete information, in that these accounts either were not or had not yet been involved in the operation, or that they were, but there was no information available at the time about transactions which linked them to it.

Linking transactions to suspects

The next logical development in querying the data was to examine how (if at all) the information regarding the movement of money was related to the information developed through the earlier queries about the individuals involved. The object was to identify the movement of specific funds from the victim(s), through the network to one or more final destinations which could hopefully be connected to specific individuals. In another chart the links between all the known individuals and their accounts to the main operation involving money transfer were shown in detail. A close examination of this chart showed that of the four identified main players, the accounts controlled by two of the four key suspects had no link whatsoever, directly or indirectly, to the transactions known to have taken place. This is important, in that if there were no missing transactions, then there was no direct link between them and the known transactions of the criminal operation.

In the case of these two, both were in fact late additions to the 'team', and were still in the planning & preparation phase of their part of the operation at the time inquiries were commenced. In their cases, it was necessary to focus on their individual actions in establishing aliases and false accounts, and then to link these actions to the known operation, to show how they fit into the overall operation, and even to prove that had the operation not been interrupted, they would have gone on to become involved in the transfer of stolen funds as full participants. This is in fact what took place; charts were used to gain admissions on interview which resulted in charges for conspiracy rather than full offences. The same charts were used during the trial to explain their part in the operation, and both were successfully prosecuted despite not having actually been involved in any movement of stolen monies.

With regard to the remaining two suspects, the charts did not show a link between the transactions and a number of their respective aliases and accounts. As with their partners, these instances could be explained as 'planning ahead'; preparation by these two either of false identities/accounts ready for use should any of their others be compromised, or for new areas of the operation/sources of stolen funds not yet targeted. Having dealt with these 'unused' identities and accounts, the chart showed that all the other accounts they controlled, whether directly or through aliases, were directly involved in the actual transfer of funds stolen from victim accounts. In fact without exception all such monies could be traced back to these accounts where they had either been retained, or used to pay debts incurred by the two targets with legitimate businesses not involved with the criminal operation.

Whilst this general picture clarified the overall nature of the operation, and the control which these two suspects had over of it, clearly further analysis of the data was necessary if specific transfers of funds from victim to suspect were to be identified. The analysis software has the ability to trace links which are directional in nature from a specific source to a specific destination, thus using this facility it was possible to follow each transaction in a sequence which led to the stolen funds being transferred from victim to suspect. This chart showed that the routing of monies was extremely complex, with funds following many different routes through different sequences of accounts and aliases before arriving at their destination.

It was also possible to extract each sequence of transactions from the main database, and thus build up a series of simple charts which identified the flow of money from victim to suspect. The product of this part of the analysis clearly was of great potential use in making clear specific details of transactions which could be used both in suspect interviews and in subsequent case presentation. It also brought attention to a further complication in the system of operation of the suspects in that the actual sum of money moved was changed between individual transfers. In this way stolen funds would be divided and follow different routes to their final destination, thus making the audit trail even more complex. The problem thus arose of trying to prove that the funds being transferred were those stolen.

This was achieved in many cases simply because the intermediate accounts did not hold any appreciable balances prior to transfers. Thus for example where a large sum of stolen money arrived in an account, subsequent smaller transfers had to be this money because no other monies had previously existed in the account. Similarly where divided funds arrived from through differing routes at a particular account, subsequent large transfers had to comprise these funds as there had been no other funds present. This was perhaps the crucial failing of the operation, in that despite the complexity of the system of false accounts, aliases, multiple transfers and divided funds, it was still possible to follow the movement of money through the whole of the operation from victim to suspect.

An examination of all such charts revealed several interesting features, namely that certain accounts were commonly used as collection/distribution points for funds, as were certain aliases. Further, a comparison of the actual totals of funds reaching the two suspects showed that Suspect D was by far the greatest beneficiary, receiving over 80% of the total, and further that in fact much of the money transferred to the other key suspect by the system was in turn subsequently transferred to Suspect D, his 'junior partner' retaining only some 7%. These two factors demonstrated the level of control of the operation (87% of stolen funds received by them) by these two, and also suggested a hierarchy even between them, with Suspect D being by far the

'senior' partner, both in terms of involvement in the operation through aliases/accounts and in terms of benefit received.

End results

Both defendants were interviewed using the charts, and made full admissions regarding both the receipt of specific stolen monies, and in due course, the organisation and implementation of the whole criminal operation. The results of the analysis and the charts were used throughout the prosecution, and both were convicted.