Crime Opportunity Profiling of Streets (COPS)

A Quick Crime Analysis – Rapid Implementation Approach

September 2005

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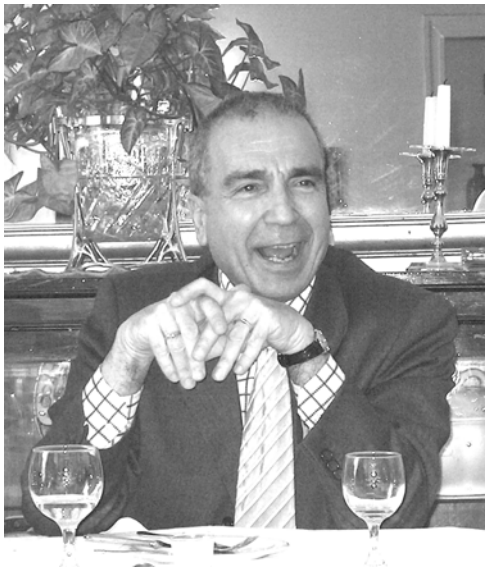
Dedication

This report is dedicated to Panos Thomadakis, our Greek participant in this project who passed away suddenly and unexpectedly on Monday morning 5 April 2004. We will remember Panos as he is in this photograph taken during our visit to Athens in March 2004.



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1 Summary

This project dealt with various aspects of crime and anti-social behaviour with the crime 'climate' varying significantly from member country to member country. It was managed by BRE and led by a representative Steering Group with some partners being fully involved with the research, implementation and evaluation of the process and others who provided expert input via a series of Steering Group meetings and workshops. The representatives who formed the Steering Group and the countries they represent are listed on the title page.

There were two main aims of this project: firstly to undertake research in Crime Prevention Through Environmental Design (CPTED) practice supported by partnership working; and secondly, based on the outcome of the research, to develop tools and multi-disciplinary strategies between police and other partners to reduce crime, fear of crime and anti-social behaviour within specified urban areas.

The output provides an evaluated overview of European practices focusing on exemplars formed into a draft toolkit. The methodology included:

- overview of CPTED practice in Europe
- literature review
- identification of approaches from existing ideas providing evidence of how they worked and dissemination of information to the group
- short-listing of approaches approved by the Steering Group and then applied in the field
- selection of innovative approaches and validation that they worked by field research
- expert appraisal by the Group
- forming them into best practice user-friendly models
- refining and piloting them in the field
- formation of a toolkit for dissemination across Europe.

Quickly identified was the wide-ranging level of basic awareness and implementation of CPTED practices amongst the participating countries. In some countries crime reduction measures have, or are about to become, part of the planning and building regulations, for example Netherlands and the UK, whereas some other partner countries were just becoming aware of the way some changes in society and speculative development could quickly lead to increases in opportunistic crime, for example Estonia and Poland.

The following tools were identified for detailed analysis and form part of the toolkit (full details of the tools and toolkit can be found in Sections 4 and 5 respectively):

Crime Opportunity Profiling of Streets (COPS), UK
By the very nature of the process COPS is usually used in areas that suffer from high levels of anti-social behaviour and street crime. It can be used alongside police enforcement and actions by the local council and health authority as part of an overall strategy to deal with, for example, a major problem of drug dealing and drug use in public streets. The procedure involves a detailed survey of the area undertaken by an expert taking a visual audit including photographs of any problems identified together with voice recording of issues including 'ownership' of the issues for later transcription into a simple report format that incorporates the photographic images. Results provide a complete and detailed record of actual and potential crime generators present in each street and an initial recommendation for action for each; the identification of who or what organisation will work towards a solution; a record of actions carried out and their effects.

Kids & Space, Netherlands
This scheme uses visual images, of both good and bad environmental situations, to encourage young people to become involved in their environment and to feel a sense of ownership and responsibility. Safety is not the goal of the approach but a logical by-product. It can be used for both existing areas under reconstruction and new build with assessment of plans for the area with a focus on the public domain involving young people who live in the designated area or its direct surroundings. Results include an almost 'ambassador-like' involvement of young people in their environment; raising awareness of planners and designers to an important group of public domain users; acceptance of changes and a sense of ownership; commitment to solutions.

Virtual CPTED, Netherlands
A 3-D computer simulation of an area is used to address CPTED qualities from the viewpoint of a person wandering through the area. It creates a virtual environment that can be tested and experimented on so the environment can be changed, for example lighting, heights and positions of walls, to see the effect. Its use in both refurbishment and new build situations is wide ranging from new plans, assessing the inside and environment of a building through to assessment of a street or larger area. The tool raises awareness of faults in the design, enables stakeholders to agree priorities and possible solutions and results in improved design.

Visual Inspection/Stickers to Safety, Netherlands
Following a visual inspection of the neighbourhood by stakeholders and those having responsibility for the neighbourhood, stickers showing a graphic display of offences are used by workshop participants to pin point crime hotspots on a map. This procedure is followed by discussion on the priorities, causes of problems and possible solutions. This tool can be used in existing situations for assessment of buildings (both interior and environment) and assessment of a street or neighbourhood and involves specific stakeholders. Its simple and almost 'playful' way of identifying problems is a very good means of communicating with 'hard-to-reach' groups or persons as it uses images and not words on the stickers so they can be easily understood. Results include the mapping of crime hotspots, gaining an awareness of problems, agreement on priorities and possible solutions, commitment to solutions.

Police Label Secured Housing, Netherlands
This scheme comprises a set of requirements regarding social safety, prevention of burglary and fire. The list of requirements on which the Label is based includes urban planning and design, public areas, lay out, buildings and dwellings. The Label must add quality but at the same time it must be financially and technically feasible and at its core is the standardisation of measures, products and standards. Its usage makes demands as to the urban development planning of an area or neighbourhood, public areas, communal areas in residential areas – the lay out as well as the dwelling. Results include gaining an awareness of problems in the living environment; agreement on priorities and solutions; commitment to solutions; risk of burglary of dwellings where the requirements of the Police Label have been met has been reduced by 98% when comparing certified to non-certified dwellings.

Criminological Regional Analysis (CRA), Germany
The tool is a combination of empirical research techniques consisting mainly of analysis of documents, statistics and victim surveys. Its use in small geographical units, e.g. medium-size towns, city centres involves a multi-agency team (police, town administration, criminological institutes, local non-government organisations, public-private partnerships, citizens etc.). Results include a database for planning local crime policy, law enforcement, crime prevention strategy projects and measures; processing and documentation of necessary data unknown before; commitment of partners not previously involved in the crime prevention planning process all with the intention of reducing crime rates, public disorder and fear of crime.

Integrated Audits (in crime prevention and traffic safety)
An independent part in the town planning process and is a formalised, rule-based procedure that includes analysis of relevant documents, assessing the space with regard to crime prevention (e.g. CPTED principles) and traffic safety combined with systematic visual inspections of urban areas. Its use at draft, planning and implementation stages of existing areas and refurbishment results in a detailed audit report covering single buildings, streets, quarters and town and provides an additional decision-making basis for the authorities.

Evaluations of the UK and Dutch schemes in particular show very good results, with burglary dropping sharply when these schemes are implemented in new or existing environments. Other opportunistic crimes like theft, vandalism and street violence also appear to go down after implementation. Using the Police Label schemes significantly reduces fear of crime. The German schemes are thorough but regionally based thus restricting their usability and transferability across Europe although the methodology is transferable.

The most effective approach shown across Europe combines:
- **physical approaches** (like Crime Prevention Through Environmental Design (CPTED) and Designing out Crime (DOC) focussing on architecture, urban planning, target hardening etc.)
- **social approaches** (focussing on victims, offenders, guardians, city management, maintenance etc)
- **organisational approaches** (focus on structuring the partnership process of implementing measures).

The toolkit produced (see Section 5) measures each tool against the following criteria and gives each a rating ranging from very good/high through to very bad/very low:
- social approaches
- physical approaches
- organisational approaches
- costs of design and development; use in the field
- benefits
- ease of development and use
- transferability from one country to another
- multi disciplinary involvement – police, designers and planners, maintenance/infrastructure
- suitability for use in new build and refurbishment.

That evaluation shows the use of the tool is context driven and site specific. For example, it has been identified that in situations:
- Where there are no established crime prevention measures, little communication between stake-holders and very quick results are required, the simplest tools should be used i.e. COPS and Kids & Space, Visual Inspection.
- Where there is more developed communication between police and builders, with good law enforcement, then CRA and Integrated Audits should be used.
- At planning stage Virtual Reality, Integrated Audits, Kids & Space, Police Label Secured Housing should be used.

It is considered that the theory behind many of the individual tools forming the toolkit is sound. However, at this stage it has not been possible to test the tools across a broad spectrum of situations and therefore it is recommended that further investigation and research is needed into the following topics:

1. In order to maximise the impact of this project further effort be put into a more comprehensive evaluation of some individual tools in order to produce a more widely validated toolkit
2. Since it is easy to find simple tools, applicable, usable and cost effective then it would be useful to expand and look at other countries experience

3. A few tools are 'small-scale' and have local origins – micro tools need to grow to macro situations leading to the development of standards
4. More research is required to achieve standardisation
5. Pan-European series of conferences to disseminate the tools and toolkit should be held specifically targeting new EU Member States, candidate and developing countries
6. The network already established as key partners should be continued and, when appropriate, expanded to include other representative EU Member States, candidate and developing countries.
7. Cost/benefit analysis of each of the tools should be carried out to ascertain, where these have been used, the impact on crime and fear of crime leading to both financial and sociological benefits achieved.

In light of the above, the existing project partners will be seeking further sources of funding in order to continue this important work. Any organisations across Europe wishing to participate or those who might be interested in providing funds in support of this should contact the BRE project manager. Contact details can be found at the front of this report.

It should be noted that the following report is condensed from the contributions and submissions of the partners. Some of the original material is contained in the annexes.

2 The AGIS project

2.1 Introduction

The European Commission's AGIS Programme, launched in 2003 and ending in 2007, provides an opportunity for organisations to benefit from EU research funding in order to develop multi-disciplinary strategies and activities for co-operation between police, judicial authorities, other non-governmental authorities and organizations, the business sector, researchers and scientists in order to share operational expertise with other European partners on police and judicial co-operation in criminal matters.

Its aims include enabling EU member states and candidate countries to set up Europe-wide networks, exchange information and best practice; encouraging member states to increase co-operation with the candidate countries and other third countries; development, implementation and evaluation of European policies; and ultimately to provide European citizens with a high level of freedom, security and justice.

Crime and fear of crime is an issue in all EU countries. All crime is 'man-made' and ranges from acts of petty vandalism and minor thefts, such as pick-pocketing and shoplifting through to major crimes such as murder. There are theories that indicate there may be links between the physical environment (including the 'street-scape') and opportunistic levels of crime. Many countries within the EU are carrying out research into ways of changing or improving the urban or built environment in order to reduce levels of crime and anti-social behaviour and hence also reduce the fear of crime. Some of these changes to the environment may be minor and some may range through to include conceptual changes to the design of residential and commercial development. The acronym generally given to this design philosophy is CPTED (Crime Prevention Through Environmental Design).

The street-scape varies widely from town to town and from city to city in the EU. For example, some areas may not have changed significantly for centuries whereas others may be dominated by layouts and designs influenced by recent changes in thinking on social communities or the need for low cost housing.

This project was set up with the aim of bringing together a cross-section of experts from a wide geographical area of the EU in order to pool findings and develop a synergistic approach that could be used in a number of different ways, according to local needs, in order to reduce levels of crime and anti-social behaviour.

The project focussed on two techniques – CPTED and Crime Opportunity Profiling of Streets (COPS).

2.2 Participants

This project was managed by BRE and led by a representative Steering Group, with two types of partner. The first type (A) were those fully involved with the research, implementation and evaluation of the process. The second type (B) provided expert input via the Steering Group and workshops. Implementation was the responsibility of the first partner type, which included representatives of the target groups, for example police and local authorities, and is reflected in the practical application of the results.

Representatives from the following organisations comprised the Steering Group:

Organisation	*Country*	*Partner Type*
BRE	UK	A
Designing Out Crime Association (DOCA)	UK	B
DSP-groep BV	Netherlands	A
Estonian Security Association (ESA)	Estonia	B
European Designing Out Crime Association (E-DOCA)	Netherlands	B
London Borough of Camden	UK	A
Machinery & Technology International (MTI)	Greece	B
Metropolitan Police	UK	A
Ministry of Justice	Estonia	B
Politie Noord-Holland-Noord	Netherlands	A
Polizei-Fuhrungsakademie	Germany	B
University of Warsaw	Poland	B

2.3 Aims and output of the project

The project had two aims. Firstly to undertake research in CPTED practice supported by partnership working. Secondly, based on the outcome of the research, to develop tools and multidisciplinary strategies between police and other partners to reduce crime, fear of crime and anti-social behaviour within specified urban areas.

The intended output of the project was to provide an evaluated overview of European practices focusing on exemplars. The UK's COPS tool was presented at the ICA (International Crime Prevention Through Environmental Design Association) conference in Amsterdam in September 2003. The partners attending the workshop then had the opportunity to refine the models. This enabled them to be reapplied in partner sites in Europe. The results of these pan-European pilots were fed back to refine the models. The ultimate objective of the project was to produce a final toolkit to be launched at a conference focusing on crime and anti-social behaviour problems, supported by a dissemination programme.

2.4 The process

The overview of CPTED practice in Europe incorporated a literature review with input from all partners, and during this part of the process it became apparent that there was a wide level of basic awareness and use of crime reduction techniques/measures between the partner countries.

Members of the Steering Group identified approaches from existing ideas in their own countries together with evidence of how the approaches worked. The information was disseminated to other participants by presentations at Steering Group meetings and by exchanging documents by e-mail.

There then followed the selection and approval by the Group of innovative approaches for application 'in the field'. Expert appraisal by the Steering Group led to some tools being identified as best practice and formed by Partners into a user-friendly state as examples of best practice to be validated by field research. The updated versions were discussed during workshops attended by the participating countries that led to refinement of the tools before piloting these during a series of case studies primarily in The Netherlands and UK.

The Steering Group decided early on that a 'one size fits all' approach would not be viable. Individual partner countries benefited from the pooling of knowledge, techniques and toolkit development but were left to modify and tailor the implementation to that which best suited their local circumstances and police system.

Results of the research were disseminated to a wide range of professionals including CPTED practitioners, planners etc at a conference held in London early in 2005 – see Section 2.5

The pooling of results led to the formation of the toolkit featured in Section 5 of this report as well as identifying several areas where further work is required.

2.5 Steering group meetings and conferences

The European COPS project was launched at the International CPTED Association (ICA) conference in Amsterdam in September 2003 with an audience from many countries including South Africa, Australia, USA and Canada as well as from Europe. The launch generated a great deal of interest in the project among the audience of international experts in the CPTED field.

The first Steering Group meeting took place during the four-day ICA event during and included, by way of introduction, a brief resume of each country's CPTED practices.

During the course of the project the series of Steering Group meetings planned at inception was hosted by participating countries in order to exchange information and knowledge by means of, for example, presentations given by Partners that added to the 'data pool'. In addition some of the sites featured were visited to enable the Partners to gain first hand knowledge of the area. The opportunity was also taken to exchange recommendations for specific environmental design scenarios presented, in particular those given by Partner countries where CPTED practice is not as advanced as in others. Unfortunately, given the tight timescale and volume of work involved between the project launch and dissemination conference (16 months) it was not possible to meet in Poland.

The culmination of the project was a successful conference held in London in January 2005 attended by representatives from organisations that included:

- Local Government, including development planners and community safety managers
- Police forces
- Central government in participating countries
- Commercial sector including planning consultants, urban regeneration advisers
- Social housing groups including estate planners
- Universities, including researchers

As part of the conference 'package' many delegates took part in a walking tour of some of the sites featured in the UK element of the EC COPS project to view the improvements already made and those yet to be completed.

2.6 The future

A collection of tools has now been assembled. It is considered that the theory behind many of the individual tools forming the toolkit is sound. However, at this stage it has not been possible to trial the tools across a broad spectrum of situations.

Therefore in order to maximise the impact of this project it is recommended that further effort be put into a more comprehensive evaluation of some of the individual tools in order to produce a widely validated tool kit.

3 Crime prevention through environmental design (CPTED)

3.1 Introduction

The traditional explanations for crime fall into the category of the 'nature versus nurture' debate. The nature theorist stresses the importance of our biology and heredity and states that is how people become criminal. People are affected by diet, body chemistry and genetic hardwiring just as birds are programmed to migrate south, or as fish return to the same rivers. These are the factors that create a propensity to misbehave.

On the other side is the nurture theory. Following those ideas it is our upbringing that determines our behaviour. Our family and our friends influence us to, or not to, commit crime. We can still hear our parents warning us about learning bad behaviour by hanging out with the wrong kids. We see children abused by their parents, who then themselves become parental abusers. These are the stories of the nurture theory.

The nature and nurture explanations still exist. Nurture explanations are personality theories. Nature explanations are called environment theories. Together with a third approach, opportunity theory, they constitute the major streams of thought that have been created to explain and prevent crime.

However, what policy-makers needed (and still need) is not so much a scientific explanation of crime, but a method of tackling crime to make it more manageable. The need of policy-makers for feasible methods led criminologists to search for alternatives to the personality and environment theories about crime and criminals. This is why opportunity theory emerged in the 1960s and 1970s[1].

Opportunity theory stresses the importance of four corner stones: offender – situation – victim – guardians. The theory states that a criminal offence will take place only if the first three factors are present and the last factor (guardians) is not present. Hence this opportunity approach focuses on the situation in which an offender meets – or seeks – an 'undefended' victim; be it a person to assault, a bank to rob or a house to burgle. In this approach the focus shifted from a reactive point of view – take action after a crime has occurred – to a more pro-active stand: take action before a crime occurs and prevent the offence. One of the most productive areas where the opportunity approach has proved its worth is in urban planning and building design and has become known as crime prevention through environmental design – CPTED (pronounced 'sep-ted').

The theory of crime prevention through environmental design is based on the simple idea that crime results partly from the opportunities presented by physical environment (see also Kube, 1982). This being the case it should be possible to alter the physical environment so that crime is less likely to occur. This idea resembles the view on the history of healthcare that stresses the importance of environmental ameliorations that deeply changed the health situation and life expectancy in Western countries in the last few centuries. This enormous progress in the health situation of people only partly can be attributed to better medical practices but it was mainly caused by engineers (clean water, better sewage systems), technicians, city maintenance, architects and urban planners.

[1] We should add that the concept of opportunity had already appeared in 19th-century criminological publications. Until the first half of the 20th century however it was not considered to be very relevant. Opportunity as a useful concept for crime prevention was elaborated upon around 1920 by researchers of the Chicago School (see: CLRAE, 1987 and Soomeren, 1987).

There are three distinct approaches or theories that come under the general heading of 'Crime Prevention Through Environmental Design'.

C. Ray Jeffery
The term CPTED was coined by C. Ray Jeffery, who published a book in 1971 arguing that sociologists and criminologists had considerably overstated the social causes of crime and neglected both biological and environmental determinants. Jeffery suggested that crime prevention ought to be focused on factors related to the biology of crime and especially to reducing the environmental opportunities for crime.

Oscar Newman
The second approach falling under crime prevention through environmental design is the 'defensible space' theory of the architect Oscar Newman (1972), who published his book independently and at about the same time as Jeffery. Newman put much of the blame for the high crime rates of public housing estates on their layout and design. He holds that architectural and town planning characteristics of buildings or building complexes have a direct influence on the nature and the amount of local crime.

Newman's central concept is Defensible Space. There are four different design elements included in this concept. These four elements contribute both individually and collectively to the creation of a secure environment (Newman, 1972, 9; Newman, 1973, XV and 2).

1 **Territorial definition**. With the use of real or symbolic barriers, a particular residential environment can be subdivided into zones, which are manageable for the residents and towards which residents easily adopt proprietary attitudes, that is, "this is my area, my territory." A central point here is the transition from private space (easily manageable) to public space (difficult to manage).
2 **Visibility / surveillance**. Residents must be able to survey what is happening in and around public spaces inside and outside the building. This is one of the conditions for territorial definition.
3 **Stigmatisation**. Proper use of materials, good architectural design and, last but not least, good structural planning can prevent residents of a particular building or complex from being seen as vulnerable and/or from being stigmatised, both of which can lead to a feeling of isolation.
4 **Adjacent areas**. The security of adjoining areas is partly determined by the "strategic geographical location of intensively-used communal facilities."

Situational approach
The third environmental design approach is situational crime prevention, which was developed by the British government's criminological research department in the mid 1970s (Mayhew et al., 1976; Clarke and Mayhew, 1980, Clarke 1997). The situational approach is not concerned principally with architectural design and the built environment nor is it focused mainly upon predatory offences of robbery or burglary. Rather, it is a general approach to reducing the opportunities for any kind of crime, occurring in any kind of setting.

Crime prevention and fear reduction by urban planning and building design
The Justice and Home Affairs Council of the European Union (meeting 15-03-2001) agreed politically on the conclusion of the EU Experts' Conference 'Towards a knowledge-based strategy to prevent crime' (Sundsvall, Sweden, 2001). This conference concluded that:

> "Crime Prevention through Environmental Design, or Designing out Crime (CPTED/DOC), has proven to be a useful, effective, very concrete and feasible strategy to prevent crime and feelings of insecurity, integrated in a multidisciplinary approach. Best practices regarding CPTED/DOC should be collected, evaluated and made accessible for stakeholders. This process should utilise a common framework of concepts and processes, and transferable principles should be identified".

This EU-conference also underlined:

> "as regards prevention of the fear of crime, that the fear of crime should be viewed and treated as a social problem in its own right".

Statements and recommendations about the collaboration between environmental design/planning specialists and crime experts are becoming more and more common nowadays in European countries. These statements and recommendations are based on assumptions regarding the inter-relationships between the physical environment and human behaviour.

It is obvious that the results of urban planning and architecture do influence the choice of conduct and choice of routes of all people (young/old, female/male, potential offender / potential victim).

Hence urban planning also has an impact on crime and fear of crime by influencing the conduct and attitudes of, for example,

- offenders
- formal guardians such as police
- informal guardians such as residents surveilling an environment
- potential victims (and/or targets) of crime or victims of fear of crime.

A great number of experiments have shown that particular types of crime can be reduced by modifying the opportunity for crime in the built environment without displacement of crime taking place (Hesseling 1994). Moving the night time tavern crowd away from vacant storefronts after closing time will inevitably reduce the number of burglaries and vandalism incidents to the stores. Controlling the access into, and natural sightlines through, underground parking areas will increase the opportunity for offenders to be seen and caught. This in turn will reduce the number of assaults and car crimes in those parking areas. The list of successful opportunity reduction examples goes on**.**

In Europe these CPTED-like crime prevention approaches are also known as 'the situational approach' (see previous page), 'Designing out crime (DOC)' or – to stress the more social and organisational aspects of the approach – 'the reduction of crime and fear of crime by city maintenance, urban planning and architectural design' and the 'Situational Crime Reduction In Partnership Theory' (SCRIPT; Soomeren, 2001).

Generally speaking the European version of CPTED (whatever the name will be) is certainly more focussed on social and organisational issues besides the physical environment but for the time being we will use here the name CPTED.

In the following sections we look at examples of concrete CPTED approaches implemented in European countries; labels invented by the police to implement crime prevention such as Secured by Design (UK) and the Police Label Safe Housing (The Netherlands); European standardization.

Second generation CPTED

Over the years these three approaches have been used and adjusted into what is called second generation CPTED or European CPTED. After carrying out and learning from many projects the principal 'dos and don'ts' of CPTED projects are:

- Do not lose sight of the offender (and victim) and do not only look at physical variables
- There is not only a physical environment but also the social environment
- Do not focus only on planning and design
- Focus on urban planning, architectural design and maintenance
- Do not see crime prevention as an approach employed by one group of practitioners (only police, only planners, only architects, etc)
- A multi-agency approach is needed in a structured partnership: authorities, police, planners, architects and residents etc.

The only challenge that is left now is to take CPTED practice further and make every local authority work with it as an automatic reflex: they know Designing out Crime is an option, know what to do (ingredients, measures, best practice) and how to do it (process, implementation).

In several European countries different instruments have been developed to structure the process of incorporating crime prevention. For example, in the UK they developed Risk Assessment Models; in the Netherlands The Police Label Secured Housing and the Veiligheidseffectrapportage (VER) (secure/ crime assessment report; and in France L'Étude Préable de la Sécurité Publique (EPSP).

3.2 CPTED in the UK

1998 saw the unveiling of probably one of the most important pieces of legislation for crime prevention in the UK called the Crime and Disorder Act. Section 17 of this Act formalized the emerging crime reduction partnerships between the police service and the local authorities and for the first time made the reduction of crime and fear of crime and the reduction of disorder a joint responsibility of the police and local authorities.

In practice local authority officers, in the exercise of all their functions and duties, now had to consider the impact of them upon crime. For example, the planning officer had to take into consideration the impact of a new development on the levels of crime and disorder in the immediate area[2], the housing manager in charge of a refurbishment project for some council homes had to ensure that the new doors and windows were capable of deterring a would-be burglar.

The Act also charged the police and local authorities with writing a crime reduction strategy every three years that is audited by central government. Although no new government funding for CPTED accompanied the Act, its impact has meant that existing expenditure has been better focussed upon crime prevention.

In the spring of 2004 a joint publication between the Office of the Deputy Prime Minister (responsible for planning) and the Home Office (responsible for crime and policing) entitled 'Safer Places – The Planning System and Crime Prevention' reiterated[3] and clarified the UK Government's stance on the importance of designing out crime opportunity at the planning stage of new development and refurbishment of the existing. It was the first time that these two government departments came together to promote CPTED theory and this guide to best practice in designing out crime, which was primarily aimed at the planning professionals, was generally welcomed by the police service and professionals involved in the built environment.

The police service in the UK had been aware of built environment opportunity for crime for many years and had been promoting the practice since the early 1980s. In 1989 the police services in London and the South East of England launched Secured by Design (SBD), a scheme that promoted CPTED for new and refurbished housing and began training a large number of its officers in CPTED theory. Within two years the scheme became a national project and today over 400 trained Architectural Liaison Officers throughout the UK administer it. The scheme is administered by ACPO CPI Ltd, a company limited by guarantee, which is wholly owned by the Association of Chief Police Officers.

The scheme is totally self-financing through the selling of SBD licenses to manufacturers of a wide range of products, which meet security-testing standards that are recognised by police. In return for their fees the current 280 or so licensees may use the SBD logo on their sales literature, have an entry on the SBD website, exhibit at community safety conferences and play a full part in the further

[2] This was already a requirement since the publication of a central government Planning Circular 5 of 1994, 'Planning out Crime'.
[3] Which made crime prevention a material consideration in the planning process.

development of the various existing and new test standards. SBD is seen as successful and the scheme (that now includes CPTED guidance for a large number of different types of building including schools, hospitals and licensed premises) is often mentioned as best practice within national and local government planning policy guidance.

Many local authority housing departments make up their tender lists from the SBD licensees. All Housing Associations[4] build to the SBD principles and specifications. Many planning authorities are making Secured by Design a planning condition upon applications and SBD is also finding its way into private housing with a pilot scheme in North Wales soon to be launched involving four national house builders. Last year (2004) also saw the publication of the Sustainable and Secure Buildings Act, which will eventually bring many of the enhanced security standards recognised by SBD into the Building Regulations.

Of course, Secured by Design, although of great importance in the UK, is but one of many projects involving CPTED theory and practice – far too many to refer to here. A visit to the Home Office crime reduction website at *www.crimereduction.gov.uk* introduces the reader to a huge number of designing out crime initiatives, both police and non-police. There is design guidance available for:

- Parks and open spaces and for play areas
- Footpaths and streets and for specific building types
- Specific crime threats, such as drug use and terrorism.

There seems to be an unending number of guidance documents being produced and along with them the emergence of many more environmental criminologists and other experts in the field of designing out crime. Designing out crime is then well practiced in the UK and is enshrined within central and local government policy.

3.3 CPTED in the Netherlands

From the beginning of the 1970s and 1980s the relatively peaceful Netherlands began to change. Police recorded more and more crime and inhabitants of the Netherlands signalled increasing feelings of insecurity that made it necessary to develop a new policy with a more coherent approach of crime and crime related problems.

A committee was formed to research what action was required and this resulted in 1985 in a new government policy ‘Crime and Society’. This new policy was different from the governmental policies before in the respect that it focussed for the first time on the fact that not only the police and judicature were responsible for the tackling of crime problems but also other ministries and governmental organisations, welfare organisations, commercial organisations and not least the individual citizen.

This policy marked the beginning of a new way of thinking in which crime and crime related subjects like feelings of being unsafe were tackled not only in the output stage (by catching and convicting the suspects) but much earlier, by adjusting public space, organising and strengthening social structures in society and intensifying functional surveillance. This was more or less the beginning of CPTED thinking in the Netherlands.

In the following years the Dutch government published many more policies. The budget for the prevention of crime was included in the so-called ‘social renewal-policy’. Over the years more and more emphasis was put on the fact that crime prevention is a prime responsibility of local government, together with the organisations of social services and citizens. The Dutch government on a local scale therefore stimulated safety policy. For the 31 big cities in the Netherlands (10,000 to 800,000 inhabitants) a special policy was developed with special activities.

[4] Registered Social Landlords

Crime prevention through environmental design was first thoroughly researched by two Delft scientists in the early 1990s. The Dutch Police Label of Secured Housing was one of the first instruments that was developed with the idea that by adjusting public space and individual premises, not only by using better locks, but also by taking into account the way the houses and neighbourhood were actually situated, the actual crime rate could be influenced as well as feelings of being unsafe. The instrument was and still is one of the biggest successes in the Netherlands, especially on the level of individual premises.

In later years other CPTED instruments were developed such as the Safety Effects Report and Labels for Safe business areas and shopping malls and entertainment areas. These areas all focussed not only on physical measurements but also on the process of getting stakeholders involved in the process of making an area safer both in objective crime rates and in subjective feelings of safety.

All these instruments are more or less actively used by the local municipalities and although CPTED is still not the first thing stakeholders think about when building or restructuring new areas or neighbourhoods, safety has become an important aspect of the building process in the Netherlands.

3.4 CPTED in Germany

According to the needs of human beings the relationship between built environment and crime prevention is a close one and covers a wide-range reaching from safe homes to quality of life in the urban area. The various age groups have different needs and views and planning has to take all of them into account, and the environment is built also for generations to come.

1. Safer houses
The origin could be seen in a special unit of the police in Berlin that in 1921 began to advise the public how to improve the protection of dwelling houses against burglary. Today there is a network of about 300 such advisory units that are supported and supplied with the necessary material by the 'Programm Polizeiliche Kriminalpraevention', in which all federal states take part. The aim now is to address estate owners, investors, architects etc. at the earliest possible stage.

2. Preventative town planning
Whilst in the past the police used to assess plans with regard only to traffic safety nowadays crime prevention is part of the assessment. In seminars the officers receive the qualification needed to perform this task, sometimes together with town planners. In 2004 the 'Programm Polizeiliche Kriminalpraevention' edited a manual for preventive town planning. This manual shows that despite the lack of an organizational CPTED/DOC – structure the ideas and principles are taken into consideration. It can be expected that in this way the users' awareness and the acceptance of European standard ENV 14383-2 on urban planning will also be promoted.

3. Combining crime prevention and traffic safety
In some federal states traffic safety and crime prevention experts are working together in the same Prevention Department. When addressing one of their target groups, for instance in schools, the experts include the topics of crime prevention and traffic safety (thus saving resources).

Audits are some sort of independent counter-check, which to a certain extent is already acknowledged as far as road safety is concerned. As we learn from a research project, audits simultaneously can include crime prevention checklists, so again combining the two fields of public safety.

4. Identification, cohesion and social control
CPTED measures influence the citizens' feeling of safety in public places, streets and housing areas. CPTED can encourage the use of a specific space (private, semi-public or public) by day and by night. CPTED can contribute to the citizens' identification with their environment, which can be

seen in close connection with the social cohesion of the inhabitants. Both lead to a higher feeling of responsibility and to more informal social control.

This awareness still has to be disseminated and put into local practice as a common future task in crime prevention.

3.5 CPTED in Estonia

The introduction of CPTED principles to Estonia started in 1999 with the hosting of a meeting of Working Group 2 (Urban Planning) of CEN/TC 325[5]. Estonia was the first country in Europe to adopt European standard ENV 14383-2:2003 'Prevention of crime – Urban planning and design – Part 2: Urban planning' as a national standard. The standard was translated into Estonian and became the first document published in the country on designing out crime principles.

A new Planning Act passed on 13 November 2002 stipulated in its requirements that "comprehensive planning make proposals to prevent, by way of planning, the risk of criminal activity in urban areas" and detailed planning "establish requirements and conditions to prevent the risk of criminal activity".

To disseminate knowledge of CPTED principles a number of seminars for town planners, architects, police officers and municipal decision makers have been conducted. Despite the availability of the standard and the stipulations in the Planning Act, the actual implementation of CPTED is far from satisfactory.

Police could have the leading role in CPTED as in some other countries but as yet there has been no decision taken at a higher level as to who is going to coordinate the CPTED activities as such.

During 2004 there was regional police reform but at the time of writing no one has been named within the police as being responsible for CPTED. There are already some police officers dealing with crime prevention issues in general but not specifically with CPTED.

In addition to the above issues regarding police, there is difficulty in finding people in architecture or planning who want to be involved in CPTED and there are cultural and understanding difficulties that result in a split between planning and practical application. There is a lack of strategic development plans for town planning – the main task of planning is to decide how land is used.

It was hoped that the CEN standard that was translated into Estonian could serve as a strategy available for urban planners. In reality the main problem with this standard is that planners and local authorities are not obliged to follow it. The standard is voluntary and because of the lack of any comprehensive approach or a policy-supported programme it can be left as a document with no implementation.

So in one respect there is some theoretical background, but in reality there is still no co-ordination and real activity on CPTED between police, government etc. and no comprehensive national programme similar to Secured by Design (in the UK) or the Police Label programme (in The Netherlands) that helps parties participate.

In 2001–2003 three seminars were held with the assistance of Derek Harrison and Paul Francis from the UK's Gloucestershire Constabulary. These were fruitful, informative and gave a good insight to the

[5] CEN (Comité Europeen de Normalisation) Technical Committee 325 is the official body ruling the arena in which the European standard for the reduction of crime and fear of crime by urban planning and building design is made.

issues so people have now started to speak about situational crime prevention. However, no real programmes have been implemented since the seminars.

The only project that could be of interest was started in 2001 in the town of Narva, with the aim of increasing the perception of use of space by inhabitants. This survey involved young people from 6th grade (age approximately 13 years). They worked with their own methodology as young people and children have a different and very intimate perception of environment. Simple questions were asked of them, for example places they like to visit with friends, places they like to have fun, places they dislike, places that are scary, places of adventure etc. This information was then used to highlight areas. To some extent this survey was taken into account as background information when the town new comprehensive plan was under discussion.

3.6 CPTED in Poland[6]

In Poland there is no general act or decree regulating crime prevention, nor any bill or political initiative in this field. Responsibility for security is discussed in various normative acts making it difficult to establish a clear division of competence and responsibility. In some quarters it is considered that in order to amend the law it would be sufficient to make particular acts more precise; if a centre co-ordinating crime prevention in Poland were to be established on the basis of existing regulations then an act would not be necessary.

Crime prevention has been statutorily assigned to the following subjects:

- The Act on the Police passed in 1990 – art.1 sec.2 – defines the fundamental tasks of the police.
- The Act of 1997 on Communal (Municipal) Guards specifying their task to perform duties in the field of public order protection resulting from acts and regulations of the local law.

In 1998 The Prevention Bureau at the Police Headquarters together with the Dutch Police Institute worked out a complex programme for socialisation of police activities in co-operation with their local partners in the field of reconnaissance and solution of crime and security issues, carried out under the auspices of the European Commission in co-operation with police from EU member states. The programme calls for achieving aims through parallel realisation of five major programmes that include the educational project called ‘Safe City’ covering housing, cars, business and schools; the educational and preventative project ‘Live Normally’ is a neighbourhood project to prevent crime

From 1991 to 1998 the Police Headquarters handed to their units in the provinces several descriptions of various programmes on prevention ranging from individual ones to the complex ‘Safe City’ project. Pilot projects for prevention started to be implemented in 1993. The ‘Safe City’ project has been conducted in the whole country with differing intensity since the beginning of 1995. The project included some suggestions for preventative actions, defined principles, forms of activity and its structure, and primarily recommended respecting the principle of founding projects on surveys of needs and threats in local communities both in cities, communes and residential areas. The concept of the ‘Safe City’ project corresponds with the standards applied by well-known British projects, for example The Safer Communities Partnership, The Strategic Partnership and The Safer Cities Project.

Within the framework of ‘Safe City’ a variety of sub projects are conducted depending on local needs, for example Safe Home, Safe Street, Safe Business, Neighbourhood Watch. Some of the projects in Poland are directed to improve security and order in specific regions; their aim is to create secure zones, squares etc. As a result of meetings with residents dangerous zones and ways of improving them are identified; lighting in these zones is improved and dangerous areas monitored. The essence

[6] Summarised extract from Janina Czapska’s text; Crime Prevention in Poland, Local Community Public Security, Central and European Countries under Transformation; 2001

of these projects is three elements – intensive police patrol, technical prevention and using district constables according to their duties specified within the framework of community policing theory.[7]

3.7 CPTED in Greece

Unfortunately there was no written submission for this section from Greece due to the unexpected death of our Steering Group member Panos Thomadakis. However, his contribution included organising an excellent Steering Group meeting at which three different approaches to CPTED were discussed that included a case study of an area in Athens presented by General Antonis Koukoutianos and Panos Thomadakis summarised in Annex 7.

[7] An example of the Polish involvement in crime opportunity profiling of streets.

4 Case studies and tools

4.1 Introduction

A wide range of tools were submitted by the participants and contributed to a final toolkit. The following are included in this report:

- COPS – used in existing areas of some parts of the UK
- Kids & Space – used in areas under reconstruction and those newly built in the Netherlands
- Virtual Reality – used in newly built areas in the Netherlands and those under reconstruction
- Visual Inspection/Stickers to Safety – used in existing areas in the Netherlands
- Police Label Secured Housing – used in existing and new areas in the Netherlands
- Criminological Regional Analysis (CRA) – used in existing areas in Germany
- Integrated Audits – used in existing areas in Germany

It will be seen from the summaries of the tools that form the toolkit that it is only possible to take good preventive measures when it is known what is happening in a neighbourhood or area and stake-holders that are important in that area are involved. Therefore:

- Step 1 is **analysis**. Most of the time this will be a very deep and thorough analysis, but the strength of this toolkit is that it focuses on simple, 'hands on' analysis.
- Step 2 is **implementation**. Usually implementation takes more time and is difficult to carry out
- Step 3 is **monitoring and evaluation**.

Another strength of this technique is that analysis and implementation are very tightly coupled so that the effect of its implementation is immediately evident.

4.2 UK: Crime Opportunity Profiling of Streets (COPS)

Crime Opportunity Profiling of Streets (COPS) is a systematic and detailed study of a street, which suffers from a high level of anti-social behaviour, high levels of street based crime and fear of crime and or the effects of a street based drug market. In effect COPS is crime analysis undertaken where the crimes are committed and where the skilled profiler will recognise the crime generating aspects of the built environment and have the ability to recommend remedies. Analogous to this would be a 'well man clinic' or in this case a 'well street clinic' as the report of observations and recommendations that is produced is in essence a health check for each street.

Crime opportunity profiling focuses upon a number of common aids to crime and anti-social behaviour found in the urban street. These include a plethora of recessed doorways in which all types of crime and anti-social behaviour takes place, misused street furniture, such as benches and bus shelters, canvases for graffiti, poor street lighting, under-used alleyways and unrestricted access to the rear yards and elevations of offices and shops.

A COPS report will recommend the achievement of a set of baseline aims appropriate to the local environment such as minimising street clutter and maximising surveillance opportunity of, from and along the street and maintenance of the street or the lack of it will be highlighted if found to be deficient.

COPS is a simple tool and although it is labour intensive its impact has been found to be quite stimulating to both the problem owners and crime reduction partners (particularly the local authorities and elected council members).

Tool: **Crime Opportunity Profiling of Streets**

Organisation: Camden Operational Command Unit, Metropolitan Police

Method

- Begins with crime distribution analysis to identify hotspots for crime types dealt with by this tool, such as anti-social behaviour and drug dealing.
- Followed by an initial walkabout of the area identified with local beat police officer and members of the local business and resident community.
- Further information gathered from partner agencies, such as Drug Action Team and Rough Sleeping unit of the local authority.
- Each street identified as having problems is then surveyed and all actual and potential opportunities for crime and anti-social behaviour in the street and in the building interfaces with the street are recorded.
- Method of recording includes digital photographs and voice recording, which is later transcribed alongside the pictures
- Using the (yet to be published) draft guidance document recommendations to remove or alter the identified crime generator are made.
- When a recommendation has been carried out it is recorded in order that the report can ultimately be used as a performance indicator.

Implementation

- By the nature of the process COPS is only used in areas that suffer from high levels of anti-social behaviour and street crime.
- Can be used alongside police enforcement and actions by the local council and health authority as part of an overall strategy to deal with, for example, a major problem of drug dealing and drug use in public streets.

Objectives

- To remove or alter features in the street or in the building interfaces with the street, which are being actively used or could be used by those engaged in anti-social behaviour.
- Raise awareness of persons affected by anti-social behaviour that the features of the street and building interfaces with it can and does aid the commission of criminal behaviour.
- To provide partner agencies with a catalogue of problems for each street together with recommendations to remove them. Particularly useful for planners who may be seeking 'planning gain' funding from a planning applicant to improve the local environment.

Involvement

- For best results a COPS should be carried out in conjunction with the local council and in particular the planning and highways departments.
- Resident Associations
- Business groups

How does it work

- The completed report of identified problems is given to each of the involved agencies or the problem owners, who in turn carry out the work necessary to remove the crime generator.

Result

- A complete and detailed record of actual and potential crime generators present in each street and an initial recommendation for action for each.
- The identification of who or what organization will work towards a solution.
- A record of actions carried out and their effects.

Next step

- Completion of a practical guide to crime opportunity profiling for use by police and professionals involved with the built environment.

Lessons learned

- Although it is usually best to have partner agencies involved at the commencement of a COPS, a COPS can by itself catalyse actions by others, often because of its visual impact.
- Many businesses were so used to seeing the problems that they became blind to them. It was only when the police pointed them out and offered advice (and on occasion financial assistance) to remove them that the businesses realised the gravity of the situation.
- Some problems can take a long time to resolve, often through lack of funding or because of planning issues. However, most can be solved eventually.

Application

- Developed by Camden Police Crime Prevention Design Advisers in 1997 with the process being developed further during the course of this AGIS project. Projects completed in the West End of London and, during 2003 and 2004, in Holborn in the London Borough of Camden.
- Designed for use mainly in commercial centres, shopping districts, which suffer high levels of anti-social behaviour, but has been adapted for use in large social housing estates.
- There is some consideration being given to developing COPS into a Secured by Design standard for streets.

4.3 Netherlands: Kids & Space

Youngsters and public space is a combination that quickly brings to mind thoughts of irritation and destruction; groups of youngsters that no one dares to walk past, scooters precisely where they do not 'belong', or skaters who use a work of art as a springboard.

Space for youngsters has been drastically reduced in the last decade by an increase in building density and an extreme increase in traffic, but also because loitering is more often discouraged.

Public space is designed primarily for adults and not meant as a place to meet friends or to enjoy yourself. As compensation youngsters got protected play areas and clubs that organized activities for them even though they would often prefer to be part of life on the street where they can see and be seen.

Kids & Space challenges designers to listen to young people and is an instrument in which youngsters from 12 to 18 years old make their wishes known and develop ideas for public space and the built facilities. The youngsters make a plan themselves, build models and present their ideas.

The youngsters are first told a few things about urban design in order that serious discussions can follow. They are taught to look at their surroundings by presenting slides that show national and international examples. Then they start to discuss the issues with each other, visit the site and make a model of the designated area. Finally, the young designers present their models to designers, city council and residents' organizations.

Kids & Space is not a rigid programme. Together with the client, it is tailored to the specific situation. The tool can be deployed for both large-scale restructuring operations as well as smaller plans on a neighbourhood level when redeveloping a park or plaza, for instance.

Tool: **Kids & Space**

Organisation: DSP-groep

Method
- Using visual presentations of inspiring examples and negative examples in one's own city or country (not like this, but like that) to trigger their imagination. Kids are encouraged to become involved in their own environment and get to feel a sense of ownership and responsibility.
- Safety is not the goal of the approach but a logical by-product.

Implementation
- Plans for existing situations (reconstruction) and for newly built situations
- Assessment of plans for the area with a focus on the public domain
- Involvement of kids who live in the designated area or its direct surroundings

Objectives
- Engage kids and get them to feel responsible, enable them to express themselves in different ways
- Positive approach to a negative situation
- As a by-product trouble spots become apparent
- Come up with creative solutions and suggestions
- Create interaction between kids living in an area and those who develop and plan their environment

Involvement
- Limited by size of group (max 3 groups of 8 kids, each with 1 facilitator)
- Presence of youth worker familiar with the kids is required

How does it work
- Workshops (two or three)
- Introduction, explanation of approach, good and bad examples (local), invitation to take part
- Kids have to visualise **what** their wishes are (with pictures of good and bad examples in the public domain) and decide **where** they want their wish to come true
- Facilitator joins the kids in a scan of the area to talk about good and bad examples and improve their wishes
- Facilitator gives points for all wishes to a total of 150
- Kids have to makes choices for a total of 50 points (negotiation between kids)
- Those items chosen are placed onto a scale model by the kids
- Presentation of the results: a delegation of max. 3 kids gives a presentation to a panel (urban planner, architect, project manager of the plan and people from the responsible body)
- Feedback meeting in which the kids get to see what the designers have done with their advice. This time the roles are reversed: the designers present and the kids form the panel.

Result
- Kids become involved in their environment, almost ambassador like
- Raise awareness of planners and designers to an important group of public domain users
- Acceptance of changes in the public domain and a sense of ownership
- Commitment to solutions

Next step
- Give Stickers to Safety a place in the approach
- Mould the approach to the ENV 14383-2 process

Lessons learned
- Take kids seriously and offer a small reward
- Co-operation between urban planner/developer/architect and youth worker is a must
- Feedback by a urban planner/developer/architect is essential
- Every project is unique; you have to use local examples to trigger the imagination.

Application
- Developed by DSP-group
- In use since 1999
- 5 projects

4.4 Netherlands: Virtual CPTED

Virtual CPTED is a very new instrument that is not very widely used, but has a great potential for architects, CPTED-practitioners or town planners. It consists of a computer programme that 'measures' the visibility aspects of a new or existing project.

In judging whether a project is crime-proof, visibility is one of the important aspects of CPTED. A good overview of the area for people who make use of that area is very important in enhancing feelings of safety. But visibility is difficult to 'measure' from a map that is only a one-dimensional display of the project. Therefore this 3-D computer simulation was developed. To decide whether a project has good visibility, one can import a computer animation of the project into the programme. An important aspect of the programme is not only that you can wander around the area, but moreover that you can vary the eye-height from which you will be looking at the area.

When doing that, red and green colours indicate whether an area has good visibility or bad visibility according to the height that has been installed. When a certain part of the project is indicated in red (that is not visible) a pop-up screen appears with questions about that area. By answering the questions a solution to the visibility problem comes up. In that way one can assess the whole project on aspects of visibility.

This programme can be used both inside and outside of buildings in new and existing situations. It was developed in 2001 on behalf of the City Council of Apeldoorn, together with Green Dino.

Tool: Virtual CPTED

Organisation: DSP-groep

Method
- Using a 3D computer simulation of an area to assess CPTED qualities using the viewpoint of a person wandering through the area.
- A unique aspect of the program is that you can adjust the height – and thus the viewpoint – of the person doing the wandering.

Implementation
- New plans
- Assessment of the inside of a building
- Assessment of environment of a building
- Assessment of a street or larger area

Objectives
- Assess CPTED qualities
- Establish defaults in the design
- Develop solutions
- Enable exchange of opinions between designer and CPTED expert

Involvement
- Limited by skills of the person using the program
- Limited by size of display
- Option 1: enables discussion between architect and CPTED expert
- Option 2: use for presentation, make a point

How does it work
- 3D representations of buildings in their environment
- Possibility to look at buildings and environment from different perspectives
- Discussion on defaults in the design
- Discussion on possible solutions

Result
- Awareness of faults in the design
- Agreement on priorities and possible solutions
- Improved design

Next step
- The program is being adjusted so that existing 3D presentations of a new area can be ‘loaded’ into the program

Lessons learned
- Similar presentations are used by developers to promote their plans. They sell their presentations under the pretext of social safety. Usually these promotions start with a helicopter view of the area while the virtual CPTED approach is like looking through the eyes of someone who wanders through the area.

Application
- Developed on behalf of the City Council of Apeldoorn under the direction of DSP-group
- First prototype developed in 2001
- Used in 1 project in Apeldoorn (train station and surroundings) and 1 project in Almere (town centre)

4.5 Netherlands: Visual Inspection

Visual inspection combined with stickers to safety is a well-known method within DSP-groep. Since it is a very good way to involve all sorts of stakeholders and a very good way to find out which problems are to be found in a certain area, this instrument is frequently used in the Netherlands.

Advantages of this instrument are that it can be carried out in a very short period of time, shows immediate results and is a very 'visual' tool.

A visual inspection starts with gathering together a group of people that have an involvement in a certain area or neighbourhood, for example police, town planners, responsible people from the municipality and the neighbourhood. Together they discuss the crime aspects and plan the inspection route. Depending on the size of the group it might be necessary to break up into smaller groups before starting to walk around the neighbourhood with a map and a checklist on which the participants mark their experiences.

When everybody has returned to the meeting place, the groups put the stickers for safety on maps that hang on the wall. When everybody has finished the chairperson starts drawing conclusions. A list with all the crime and annoyance hotspots is the result of the first part of the session. Discussion then follows on priorities, causes of problems and possible solutions. The session ends with mutual commitment on the steps that have to be taken to solve those problems that can be solved in a short period of time and planning of solutions to the problems that will take longer to resolve.

This instrument can be used in existing situations, both for individual premises and whole streets and neighbourhoods.

Tool: **Visual inspection / stickers to safety**

Organisation: DSP-groep

Method
- One starts with a visual inspection of the neighbourhood together with stakeholders and people responsible for the neighbourhood.
- After the inspection stickers (with graphic display of offences) are used by workshop participants to pinpoint crime hot spots on a map.
- This is followed by a discussion on priorities, causes of problems and possible solutions.

Implementation
- Only for existing situations
- Assessment of buildings (interior and environment)
- Assessment of a street or a neighbourhood
- Involvement of specific stakeholders
- Easy and playful way to get to the bottom of the situation
- Using stickers is a different (and sometimes easier) way to communicate (certainly for 'difficult' groups or 'difficult' persons)

Objectives
- Raise awareness of problems
- Pinpoint crime hot spots
- Come to agreement on problems and causes
- Create support for solutions

Involvement
- Limited by number of copies of map
- Limited by number of facilitators (max 15 participants to 1 or 2 facilitators)
- Choice between one type of stakeholder to focus on their problems (e.g. students of a particular school or shop owners in a shopping centre) or different types of stakeholders together to stimulate understanding and agreement

How does it work
- Visual inspection of the area
- Afterwards coming together to share experiences and develop solutions
- Needed: big size maps of area
- Needed: stickers with graphic display of various offences/problems
- Participants form small groups and are invited to discuss where they want to put the stickers (better for team building) or make their own decisions (more opportunity for individuals to state their case with stickers)
- Maps are compared and discussed by facilitator
- Agreement is sought on hotspots and problems by facilitator (draws conclusions on the map with symbols like exclamation mark or text balloons or by giving problems specific colours like red for serious)
- Discussion on causes and possible solutions by facilitator

Result
- Map with crime hot spots
- Awareness of problems
- Agreement on priorities and possible solutions
- Commitment to solutions

Next step
- Making a virtual set of stickers, so that users can take the stickers from a virtual database and use them on available maps (school, environment of school, public transport and its surroundings, streets, etc.)
- Make a differentiation in size of stickers to indicate seriousness of offence or incidence

Lessons learned
- Everybody from pupil to police officer can use the sticker means of risk analysis.
- The good thing is that it becomes clear what the hot spots are and the kind of things happening there

Application
- Developed by DSP-group
- In use since 1998
- Numerous projects (e.g. schools and industrial estates) in many cities
- Part of curriculum at detective school

4.6 Netherlands: Police Label of Secured Housing

In 1989, the South-East Region Senior Crime Prevention Officers Conference (SER-SCPOC) in the UK introduced their 'Secured by Design' (SBD) scheme which is nowadays operated by most police forces in England and Wales. Looking at the quick and robust dissemination of this crime prevention innovation, this initiative was a huge success.

Nowadays every British police force has trained specialists known as Architectural Liaison Officers (ALOs) or, in London, known as Crime Prevention Design Advisors (CPDAs)[8]. The ALOs are essential for the implementation of Secured by Design. SBD is aimed at actively encouraging the adoption of better security measures. Developments, which have followed police guidance, can receive approval and gain entitlement to use an official logo or label as an accolade and for promotion in sales literature.

Secured by Design has, of course, developed a great deal further since Dr Tim Pascoe's first evaluation of the UK Secured by Design scheme in 1992 and much of the design guidance has now been updated to allow for greater flexibility and interpretation. The 2004 amendments to New Homes and the General Principles in particular, which were written with the assistance of senior planners ensured that the recommendations did not run counter to accepted best practice in planning. The guidance was written in a form that was understood equally by the police officer, the architect and the planner.

It is also acknowledged that independent research by Rachel Armitage in 2000 into the effectiveness of SBD found startling differences between SBD and non-SBD developments of the same age in similar areas, with the SBD developments showing an average of 50% less burglary, 25% less criminal damage and 25% less vehicle crime.

Such has been the success of SBD that many local planning authorities in the UK have adopted SBD into their planning policy guidance and in 2004 the scheme was endorsed as best practice by central government in a planning guide entitled 'Safer Places – The Planning System and Crime Prevention', published by the Office of the Deputy Prime Minister (responsible for planning) and the Home Office (responsible for crime and policing).

SBD has reduced crime through the application of CPTED principles and by ensuring that the shell of the buildings can stand up to criminal attack at least for as long as possible should the principles of CPTED fail to work. This has been made possible through the development of attack test standards for doors and windows and a myriad of other products. Interestingly, in order for the doors and windows to be certificated for their enhanced security they must first undergo performance and weather testing. In other words, before SBD there was little or no performance testing and so SBD has been responsible for an all round improvement in the general quality of materials used in house building.

The Dutch Police Label Safe Housing was introduced nationwide in 1996. The objective of the Label is to reduce crime (mainly burglary, car related crime, theft, vandalism, nuisance) and fear of crime through environmental design, architectural measures, and target hardening.

Taking a closer look at the English and the Dutch police label, some striking differences are revealed. Although the packaging looks alike, the content of the Dutch police label is quite different. Using

[8] An insight into their role and skills can be found in a Home Office manual (1997). In this manual the police acknowledge that the physical environment can have a significant influence on criminal behavior, because the criminal relies on opportunity, anonymity, easy access and quick escape routes.

Alexander's pattern language (Alexander, Ishikawa and Silverstein, 1977), the Dutch label focuses more on urban planning and landscaping, embodies to a larger extent the offenders' perspective (Korthals Altes and Van Soomeren, 1989) and can be used more flexibly in dealing with site specific problems and solutions.

The language of the architectural world was chosen to develop the guidelines for crime prevention and fear reduction. The mission was to develop guidelines for houses as well as guidelines for the environment; so both architectural and landscape/planning level. But the Dutch approach did not only differ from UK Secured by Design in this respect.

Because a wider focus was used, a broader theoretical basis was needed. This basis was found in the pattern language developed by Christopher Alexander et al. in the 1970s and it formed the structure for the Dutch Secured Housing label, while earlier research and police experiences can be seen as the content.

Both the British and Dutch labels are aimed at activating and supporting the client (from private investor and owner to housing association). In the end it has to be the client who demands safety and security to be produced as much as possible by architects and urban planners. The new label only helps to formulate these demands in a more clear and controllable fashion. In this respect the police label is only a means to improve communication between clients and architects/planners.

The extensive manual for the Dutch Police Label
To compile the guidelines for the Safe Housing Label Manual (Korthals Altes en Woldendorp, 1994), 55 patterns of design elements were distilled out of Alexander's work that could have possible crime preventative and fear reducing effects. Crime as well as fear of crime are not isolated acts or feelings but can be seen as processes, a result of a series of spatial patterns.

For the sake of analogy with the planning process, and after Alexander's example, the 55 patterns summarized in the manual have been arranged from high to small-scale levels. So, one can see the approach taken in the manual as a fall from a parachute: just after jumping one has a good overall view of the area, later on more and more details are revealed. In the manual there are several levels on which patterns are to be distinguished:

1 **Urban planning and design** (size of the district, density, height and scale, access to the district by car and bicycle);
2 **Public areas** (parking in open air, private garages, playing facilities, tunnels and subways, bus stops, rear passages, including neighbourhood management, maintenance, supervision, etc.);
3 **Lay out** (back yards, rear paths etc.)
4 **Buildings** (estates, semi-detached houses, layout of single-family terraced houses, inner grounds, enclosed squares);
5 **Dwellings** (orientation living rooms, low roofs, main entrance, target hardening, etc.).

Whilst parachute jumping, the police officers can use the Secured Housing Label Manual as an automatic safety device that forces them to open their parachutes at the earliest time possible. Acting too late – e.g. only checking target hardening of the houses – makes it impossible to gather enough points to award the Secured Housing Label, because in descending through the five levels and 55 patterns, each pattern has to be checked (okay: 1 point; not okay: 0 points). Having landed on the ground, a fixed minimum of points must have been scored.

In the manual every pattern is treated on one page using a very strict page format.

Process
When housing project developers or housing associations apply for a Police Label Secured Housing, their building project and its environment must meet certain requirements. The label may be used only

after the police have granted their permission. This permission cannot be given for a part of the project; it is all or nothing.

Police officers are, of course, not designers: they are not supposed to make plans, but they have to check them for the patterns summarized in the manual. Therefore, police officers have to be trained to learn a flexible way of thinking. Backed by the rigid structure of the manual, the police officers can negotiate with architects, planners and builders. Together they will find enough flexibility in the manual. This flexibility is generated by:

- A combination of an objective (what) stated in rather broad terms and the concrete elaboration (how) that is presented for each of the 55 patterns. When there is doubt on one of the elaborated guidelines it is always possible to return to the objective and find an alternative solution;
- A system of basic points and extra (bonus) points which can provide compensation to reach the total score threshold;
- The relationship between different patterns/pages that is indicated in the manual thus opening the door to yet another way of compensating for weak features in a plan or project.

A label for existing environments

Based on experience with the label for new housing a second label was published for existing houses and neighbourhoods along the same lines. This label enables police officers to structure the negotiations on safety and security with the array of players involved in the maintenance of existing houses / dwellings, estates, environments and neighbourhoods.

Because crime prevention in environments that already exist involves more players having vested interests it was decided to break up the label for existing housing into three different certificates:

Level / certificate	Player / stakeholder
1 Dwelling	Household owning or renting a dwelling
2 Complex/ estate	Housing association, group of owners
3 Environment/neighbourhood	Local authorities

Hence, for each scale level the most appropriate – or potentially motivated – player is given the possibility to apply for a certificate. Once 60% of all dwellings and 60% of all complexes in a neighbourhood obtains all three certificates the police award the ‘Label for safe housing in an existing area’.

Tool: **Police Label Secured Housing® New Estates** (Politiekeurmerk Veilig Wonen® Nieuwbouw)

Organisation: Police North-Holland North, the Netherlands

Method
- A set of requirements regarding social safety, the prevention of burglaries and fire
- The right 'fine-tuning' of the lists of requirements on which the Label is based:
  - Urban planning and design
  - Public areas
  - Lay out
  - Buildings
  - Dwellings
- The Label must add quality, but at the same time it must be financially and technically feasible
- Standardisation of standards, measures and products is necessary

Implementation
- The Police Label Secured Housing® makes demands as to the urban development planning of the area or neighbourhood, the public areas, the communal area in residential buildings, the lay out as well as the dwelling
- In new estates

Objectives
- Police Label issues of security:
  - Burglary potential of buildings
  - Burglary potential of dwellings
  - Car theft and burglary potential of car
  - Bicycle theft
  - Vandalism
  - Anti social behaviour
  - Fear of crime
  - Fire (escape possibilities, because of the burglary resistant and occupants are warned in time when smoke/fire develops)

Involvement
- Security through co-operation and the will to create an integrated and secured environment, by:
  - Police
  - Municipality (local government)
  - Town planners
  - Architects
  - Building industry
  - Housing association

How does it work
- First, the applicant will contact the police in his/her district
- The police appoints a building plan advisor
- By means of the checklist it is first established which (categories of) requirements apply
- The Label committee of the regional project manager Secured Living will determine the list of requirements
- The planning process will result in a written application, which includes the following:
  - The specifications according to which the applicable requirements are to be carried out
  - Who is responsible for the measures to be taken
  - The time frame within which these measures are to be carried out
- The regional Label committee or the project manager will evaluate the application
- After the project, which is the subject of the application, has been completed, an independent inspector will check whether all measures have been adequately executed.

Result
- Awareness of problems in the living environment
- Agreement on priorities and possible solutions
- Commitment to solutions
- The risk of burglary for these dwellings has dropped spectacularly, 1.2 to 100 dwellings is 'normal' and in certified dwellings 98% less
- Insurance companies rebate 10–30%
- Effects of the Dutch Police Label Secured Housing®:
- Burglary resistance standards became part of Dutch building regulations in 1999 (NEN 5087 and NEN 5096, class 2)
- Smoke detectors became a part of the Dutch building regulations in 2001

Next step
- To make it an instrument for regular building regulations
- To make the local authorities responsible for the developing and executing of the Police Label

Lessons learned
- Every participant can use the Police Label Secured Housing® New Estates
- It is easy to adapt
- It is a very effective instrument to reduce crime

Application
- Developed by the Police, the Ministry of the Interior, the Ministry of Justice and the Steering group Experiments Public Housing (SEV) initiated the so-called Police Label Secured Housing®
- In use since 1995 and since 1996 nation wide
- More than 500 estates certificated
- More than 400.000 dwellings certificated 'Secured Dwelling' handed out
- Can be used as an integrated format for participants

4.7 Germany: Criminological Regional Analysis (CRA)

The Criminological Regional Analysis (CRA), *Kriminologische Regionalanalyse (KRA)*, is a microanalysis on a local level that combines the geography of crime and crime control to identify its causes.

The development of the model started in 1975. It has a strong connection with the process of the German model of crime prevention on a local level requiring a high level of co-operation and partnership working between, for example local authorities, police, citizens associations, local politicians and other groups.

Crime control agencies in Germany encompass police (actual strength on a local level, responsibility assignment); justice on a local level (courts, prosecutor, probation assistance); youth welfare organisations, private security companies.

The main content of a CRA is information about the regional situation, for example population (social structure, age structure), labour situation, infrastructure, housing conditions, industrial enterprise and commerce. In addition information about offences that are of main concern and fear of crime in the population is drawn from crime statistics, police reports and standardized citizens' surveys regarding fear of crime.

All information should be focussed on the main relevant offences and crime hot spots with the analysis going down to micro level, for example, small districts of a town. It is not important to collect a great deal of data, rather it is more important to collect the right data and to find the best way of analysing it. Normally a CRA has to be limited to a maximum of 100 pages with a management summary.

To date about 40 CRAs have been carried out and the methodology optimised during the last five years. When first introduced there were reservations about the model but now it is becoming more widely accepted with CRAs now being combined with CPTED audits.

Tool: **Criminological Regional Analysis (CRA)** (Kriminologische Regionalanalyse (KRA))

Organisation: German Police Staff College (Polizei-Fuehrungsakademie)

Method
- Combination of empirical research techniques, mainly analysis of documents and statistics, victim surveys

Implementation
- Small geographical units e.g. medium-size town, quarter, city centre

Objectives
- Database for planning local crime policy, law enforcement, crime prevention (strategy, projects, measures) to reduce crime rates, public disorder, fear of crime

Involvement
- Multi-agency team (police, town administration, criminological institutes, local NGOs)
- Public-private-partnership (e.g. sponsoring)
- Active citizenship (in various stages)

How does it work
- Systematic and structured gathering of data as to:
  – the geographical unit (population, infrastructure, economy etc.)
  – the crime situation (reported/unreported, fear of crime, offences of main concern: description, explanation, starting points for action)
  – crime control: organisational structure, staff, special units, activities, networking, running projects etc.
- Data analysis and discussion with all participating groups concerned/involved
- Action plan for implementation/catalogue of recommendations

Result
- Sufficient database for intended purposes (see Objectives)
- Processing and documentation of necessary data unknown before
- Commitment of partners standing aside so far

Next step
- Standardisation of techniques and instruments
- Advanced use of tables, graphs and pictures to reduce written text
- Permanent update and continuous online data exchange of (prepared) data at hand
- Repetition of CRA every five years with adaptation to meantime developments
- Reduced version for specific addressees
- Elaborate use of CRA results within geographical information systems

Lessons learned
- The CRA effects a significant rise of the information level needed for planning local crime policy and control.
- It is mainly crime prevention (strategy, projects, measures) that can be transferred into local practice this way.

Application
- More than 30 CRA in geographical units of different size in Germany and two CRA in Slovakia

4.8 Germany: Integrated Audits

An audit is a formalized and standardised procedure that is performed by independent auditors who gather all information available and existing material. The auditors assess the information at hand following checklists for traffic safety and crime prevention. They then visit and assess the area concerned and look at the space from the perspective of offenders, victims and guardians to ascertain the area's weak points.

Since 2004 Integrated Audits have been used in the German Federal States of Brandenburg, Rhineland-Palatinate and Lower Saxony. It was in these three states that this field experiment was first implemented.

The research has shown that crime prevention can be integrated in this audit procedure to reduce disorder, fear of crime and certain offences that are normally connected with the type of space in question.

Tool: **Integrated audits in crime prevention and traffic safety**

Organisation: German Police Staff College (Polizei-Fuehrungsakademie) and General Association of German Insurance Companies

Method
- Independent part in the town planning process
- Formalised, rule-based and standardised procedure
- Including analysis of the relevant documents
- Assessing the space with regard to crime prevention (e.g. CPTED-principles) and traffic safety
- Combined with systematic visual inspections

Implementation
- Countercheck of streets, places and buildings with regard to crime prevention and traffic safety in all urban areas
- Workable for draft, plan, implementation, stock and adaptation

Objectives
- Reduction of offences (that are usually committed in space concerned) as well as public disorder, fear of crime and traffic accidents
- Integration of crime prevention and traffic safety
- Develop solutions

Involvement
- Independent auditor or team of auditors with special qualifications to ensure that public safety has been taken sufficiently in consideration
- For special aspects of crime prevention, including police officers in the audit-team could be reasonable

How does it work
- Collecting of all necessary documents: e.g. city-map, aerial view, development plan, architect's plan, local traffic concepts, information about accident black spots, crime statistics, if available: Criminological Regional Analysis (CRA), etc.
- Auditing the documents:
  – First cycle: become acquainted with the documents
  – Second cycle: counterchecking the design by using CPTED and traffic-safety oriented checklists
  – Third cycle: counterchecking the present, the expected or the planned pattern of utilisation by using checklists (e.g. volume of traffic, accessibility, typical habits of behaviour)
  – Fourth cycle: "Virtual Use" in different perspectives as potential victims, offenders and helpers/protectors. For getting the special insight as a potential victim use checklists to identify areas of fear.
- Systematic visual inspection.

Result
- Detailed audit-report related to draft, plan and stock of singular buildings, streets, quarters and towns
- Additional decisive basis for authorities

Next step
- Specialised training of auditors for integrated audits in crime prevention and traffic safety
- Practical implementation
- Evaluation to improve audit procedure

Lessons learned
- Integrated audits give substantial advice for corrections to design out space concerned offences, public disorder, fear of crime and traffic accidents

Application
- Study for integrated crime prevention and traffic safety-audits developed for German Police Staff College and General Association of German Insurance Companies
- Germany-wide published in 2004
- Part of curriculum at German Police Staff College
- Interest shown by local authorities

5 Synopsis of tools and complete toolkit

The COPS toolkit

Key: **+ +** Very good / high **+** Good / medium **–** Bad / low **– –** Very bad / very low

	COPS	Kids & Space	Virtual Reality	Visual Inspection	Police Label SBD	CRA	Integrated Audits
Social	+	+	–	+	+	–	–
Physical	+	+	+	+	+	+	+
Organisational	+	+	–	+	+	+	+
Costs of							
Design and development	– –	– –	+ +	– –	+ +	+ +	+
Use in the 'field'	– –	– –	– –	– –	–	+	+
Benefits	+ + ?	+ ?	+ ?	+ ?	+ +	+ ?	+ ?
Ease of							
Development	+	+	– –	+	– –	–	–
Use	+	+	+	+	+	+	+
Transferable (from one country to another, cross border)	++	++	+	+	–	–	–
Multi-discipline							
Police	++	–	–	+	+ +	++	+
Designers & Planners	++	++	++	+	–	–	–
Maintenance / Infrastructure	++	+	–	+	Not applicable	–	–
New build	– –	+ +	+ +	– –	+ +	– –	–
Refurbishment	+ +	+ +	+	+ +	+ +	+ +	+ +

* Social approaches focus on victims, offenders, guardians, town management and maintenance etc.

* Physical approaches such as CPTED and DOC focus on architecture, urban planning, target hardening etc.

* Organisational approaches focus on structuring the partnership process of implementing measures

Remarks

- Where there are no established crime prevention measures, little communication between stake-holders and very quick results are required then the simplest tools should be used – COPS and Kids & Space.
- Where there is more developed communication between police and builders, with good law enforcement, then CRA and Integrated Audits should be used.
- At planning stage Virtual Reality, Integrated Audits, Kids & Space, Police Label Secured Housing should be used.
- The Police Label is not transferable to other countries due to different jurisdictions, building codes and design rules
- CRA and Integrated Audits are regionally based thus restricting their transferability although the methodology is transferable
- Those tools with ++ ratings are almost at a level for development into a standard with only minor steps required towards general implementation
- Micro tools need to grow to the macro situation for development of standards

6 Discussion and conclusions

Experience gained through the project has shown that it is very useful to work together with as many stakeholders as possible and to implement very simple practical measures to improve safety. For example, visual inspection, taking photographs, taking decision makers with you on a visual inspection.

Evaluations of the UK and Dutch schemes in particular show very good results. Burglary drops sharply when these schemes are implemented in new or existing environments and also other opportunistic crimes like theft, vandalism and street violence seem to go down after implementation. Also using the Police Label schemes significantly reduces fear of crime.

Furthermore, earlier Dutch research showed that at first urban designers and architects especially were concerned about the consequences for the aesthetic features of their designs. After they have become acquainted with the manual and the labelling process, their concerns have not only vanished, but even turned into acceptance and enthusiasm: in one of the first experiments the architect mentioned that his design even became more coherent after using the guidelines from the Police Label Secured Housing.

Crime analyses and offender interviewing must be seen as an essential part to keep labels like SBD and the Dutch label up to date within a changing (criminal) environment. Hence, the big challenge is not only to 'sell' more and more Labels but also to develop a system – a continual research process – by which systemized police knowledge on crime risks, offender perceptions, and offender working methods[9] is used to constantly adapt the labelling scheme. Part of this system should be a careful and constant evaluation of the risks encountered by labelled houses/environments and non-labelled ones.

The German scheme Criminological Regional Analysis (CRA) is practical, easily implemented and can be used by architects, police etc. in addition to non-specialists. It can be seen as a means of bringing together a wide range of different players from police through to designers. Both of the German schemes are thorough but regionally based thus restricting their usability and transferability across Europe although the methodology is transferable.

Many good but 'quick and dirty' instruments/tools have been brought together and are now available for use on a small-scale such as in neighbourhoods etc. These instruments/tools would have much wider application if they were to undergo some form of standardisation.

Most of the 'quick and dirty' instruments/tools have demonstrated that they are simple and quick to use and emphasise the point that in analyses it is sometimes not necessary to spend a lot of time in evaluation and research. It is very necessary to keep the gap between analysis and implementation as small as possible.

It would be extremely useful for new member countries to adopt some of these tools. Certain techniques are easy to use – COPS, Kids & Space and Visual Inspection are recommended for new member countries as these are the simplest tools and those closest to standardisation.

The project has shown that Crime Prevention Through Environmental Design (CPTED) and Designing Out Crime (DOC) are successful and effective approaches to reduce crime and fear of crime.

[9] The UK COPS tool and Dutch Police Label Secured Housing and Kids & Space must include or be informed by offender knowledge

However, CPTED and DOC focus primarily on the **physical measures**. European experiences show that physical measures must be linked to **social measures**.

A third important pillar – obviously – is **organising and structuring the partnership process of reduction or prevention of crime**. The police labels and European standard are examples of the structuring of negotiation and implementation processes.

Hence, the most effective approach must be founded on three pillars:

- Physical approaches like CPTED and DOC focus on architecture, urban planning, target hardening, etc.
- Social approaches focus on victims, offenders, guardians, city management and maintenance, etc.
- Organisational approaches focus on structuring the partnership process of implementing measures.

The benefits of the broader methodological analyses of the nature and the research approach towards crime in the dynamic reality are evident. Due to the meeting of the multi-disciplinary team of practitioners and academics it was possible to widen the approach enabling both sides to learn from each other.

Positive aspects in the preparation and implementation of the project included the establishment of a Steering Group covering a broad geographical and expertise base. It was particularly encouraging that the members were willing to freely make available and share crime data and crime reduction techniques used in their countries.

The form of Steering Group meetings brought more results than expected because of the wide and very fruitful exchange of experiences, ideas etc. on crime prevention at the stage of ‘co-operation’ between EU and new Member States. During the course of this project both Poland and Estonia became members of the EU.

The network that has developed between the participating countries as a result of this project has been a significant outcome and will be extremely useful in the future, particularly for the exchange of knowledge and best practice.

7 Recommendations

A collection of tools has now been assembled. It is considered that the theory behind many of the individual tools forming the toolkit is sound. However, at this stage it has not been possible to trial the tools across a broad spectrum of situations. Therefore:

- In order to maximise the impact of this project it is recommended that further effort be put into a more comprehensive evaluation of some of the individual tools in order to produce a widely validated toolkit.

- Since it is easy to find simple, applicable, usable and cost effective tools then it would be useful to expand the project and look at other countries' experience.

- A few tools are 'small-scale' and have local origins e.g. Visual Inspection, Kids & Space, COPS, CRA etc. Only the Police Label Secured Housing has been developed at a regional / micro level and is a 'grass roots' type activity. Micro tools need to grow to macro situations leading to development of standards.

- More research is required to achieve standardisation.

- The network already established as key partners should continue and, when appropriate, expand to include other representative EU Member States, candidate and developing countries.

- Pan-European series of conferences to disseminate updates to the EC COPS project and toolkit should be held specifically targeting new EU Member States, candidate and developing countries.

- Cost/benefit analysis for each of the tools listed below needs to be undertaken i.e. revisit sites where action has been undertaken following use of the tools to ascertain the impact on crime and fear of crime leading to both financial and sociological benefits achieved.
    - COPS, UK
    - Kids & Space, Netherlands
    - Virtual CPTED, Netherlands
    - Visual Inspection, Netherlands
    - Police Label Secured Housing, Netherlands
    - Criminological Regional Analysis, Germany
    - Integrated Audits, Germany

In light of the above, the existing project partners will be seeking further sources of funding in order to continue this important work. Any organisations across Europe wishing to participate or those who consider that they might be interested in providing funds in support of this should contact the BRE project manager. Contact details can be found at the front of this report.

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