



South Axis - Development of a New City in Amsterdam: Progress in CPTED, CPTED in process

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Introduction

The development of the South Axis in Amsterdam is a development equal in size and ambition to the Potsdammer Platz in Germany and La Defense in Paris. Building takes place on top of and next to a main transport corridor (A10 South ring road which forms a circle around Amsterdam) and a main transport hub (Amsterdam World Trade Centre station, bound to become one of the busiest in the country, with its 8 train lines and 4 metro lines). Apart from a new CBD with a World Trade Centre and head offices of national and international firms (e.g. ABN AMRO bank and ING bank), the Zuidas is to become the home of a new cultural and recreational quarter and will include hotels and upmarket apartments. The density and height of building is sure to impress.

The South Axis is a major development in the city of Amsterdam with a regional and national impact. Amsterdam, the capital of the Netherlands, with its three quarters of a million inhabitants is part of the so-called Randstad, a thoroughly urbanized ring of cities (Rotterdam, Delft, The Hague, Leiden, Haarlem, Amsterdam, Utrecht) where about 8 million people - half the Dutch population - lives and works. Moreover, the South Axis is located only a few kilometers away from Schiphol Airport, Europe's third largest airport. The railway station on the South Axis, already one of the busiest in the Netherlands, will be a stop for the high speed trains to France and Germany.

The Zuidas has to become a complete, compact and layered city, where living, working and relaxing enjoy a balanced co-existence. The available space must be used intensely and flexibly, with the individual as the central focus. In order to achieve this, a 50-50 ratio of living and working space is the aim. Transferring the infrastructure underground will constitute such a reduction in noise pollution as to make an attractive living, working and recreational environment possible in the whole of the Zuidas area.

The South Axis plans encompass more than a million square metres of office space, approximately 8,500 residences (982,000 m²) and 263,000 square metres of gross floor space for both commercial and non-commercial facilities. Of the approximately 8,500 residences due to be constructed, 30% shall be social housing for rent. In time, some 12,000 more people shall live in the Zuidas than today and an additional 50,000 come to work here. To ensure that the various functions complement each other well, particular attention is being paid to the way in which the functions can be mixed.

CPTED on the South Axis and an European CPTED standard

From the early start attention has been paid to crime prevention through environmental design. First a quick-scan of one of the projects, next a crime and safety impact report and then a crime and safety check list. Mostly micro- and meso



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International CPTED Conference 13-16 September 2004*

level involvement - advice on particular projects or practical tips for general use – and certainly progress in CPTED.

The latest development is the incorporation of CPTED at the macro-level of planning and development. Late 2003 the European Committee for Standardisation (CEN) approved a standard on crime prevention through urban planning and design (ENV 14383-2 : Prevention of crime – Urban planning and design – Part 2: Urban planning). This CPTED process standard has been incorporated into the planning and development process on the South Axis. This illustrates how a CPTED standard can be made part of the building process of even a big development like the South Axis.

As the ENV was still under construction at the time the project management office of the South Axis needed a workable procedure, the draft ENV had to be translated into the planning and development process on the South Axis. This article focuses on this European process instrument and how it helps to make CPTED part of the planning and development process.

Planning and development process on the South Axis:

1. initiative
2. preliminary investigation
3. starting point memorandum
4. programme of requirements
5. urban development plan
6. realization (preparation of)
7. realization (execution of)
8. management

Standards for crime prevention and CPTED

The essence of good crime prevention is often found in the relation between different products and processes. E.g. a quick and good alarm system signalling a burglar as soon as possible followed by a swift response from the police or a security guard while strong doors, windows, locks and burglary resistant glazing keep the burglar busy. In this example it is the clever combination of an electronic device (alarm), a strong building envelope and well organised control (police) which is doing the trick: preventing a crime.

Knowing that these interrelationships are important for CPTED it was decided to try to draft a general type of standard – in part a process standard. This standard had to focus on the possibilities urban planners, architects and building engineers have to reduce crime and fear of crime together with the police, security firms, insurers and residents. After completion of the process standard, a standard on definitions was developed (*ENV 14382-1: prevention of crime by urban planning and building design - Part 1: Definitions of specific terms*)



In a sense the process standard (ENV 14383-2) and the definitions standard (ENV 14383-1) form the umbrella for the building and architectural design standards which are now being developed on dwellings (ENV 14383-3), Shops and Offices (ENV 14383-4) and for the to be developed standards on schools, hospitals, car parks, etc.

The new standard on urban planning (ENV 14383-2): contents

Note that the text of this standard must be used in a concrete situation. E.g. a new building plan at the outskirts of Paris, a plan for the renovation of an old harbour site in Hamburg, or the planning of a shopping area in London. As such, the South Axis in Amsterdam, is a perfect example of a project where the ENV 14383-2 can be applied.

Although there may be a variety of actors involved, in theory, the approach is always simple.

It starts with answering three questions:

1. where: the identification of the exact location of the area (by co-ordinates, defining boundaries, postal codes, etc.) and the type of area;
2. what: the identification of the (crime) problem or problems occurring in this existing area or the problem(s) that may in future occur in this new area;
3. who: the identification of the stakeholders involved in defining the problem and implementing/ executing the measures to prevent and counteract the problem.

On the South Axis, the **ENV where, what and who questions** form part of the first two steps in the planning and development process: the **initiative (stage 1)** and the **preliminary investigation (stage 2)**.

Where: type of area

The focus of the European CPTED-standard is on

- urban areas;
- urban planning scale; this includes small developments but in most cases refers to larger areas, for example parks, estates and whole neighbourhoods.

Within this focus eight types of areas can be distinguished:

1. residential;
 2. schools/youth facilities;
 3. commercial/industrial/offices;
 4. shopping/retail;
 5. parks and public gardens;
 6. leisure centres
 7. public transport and parking facilities, stations, bus stops, parking garages etc.; but excluding the transport system itself;
 8. city/town centres and public space.
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International CPTED Conference 13-16 September 2004*

Of course several mixed types are also possible, e.g. a mainly residential area with some schools, a youth facility, some shops and a small park. Important is that the area under consideration may be new or existing. In the case of a new area there is nothing there yet, only a plan exists. In an existing area the people, buildings, streets, etc. are already there.

Defining the borders of a planning area can be a tricky business. A new development like the South Axis always has a major impact on the adjoining areas. The question is whether to include the adjoining areas in the process. Logical as this may seem, it makes the process of assessing risks and finding solutions much more complicated (if only because, unlike in a new development, there are already people living in the adjoining areas and they will have an opinion).

What: problem identification

Having identified the area the next question is: what is the problem in this area or what problem(s) may arise in the project area and adjoining areas. The broad distinction in the standard is that between specific types of crimes and fear of crime. There are 6 types of crime to be distinguished while fear of crime may be sub divided in three categories. Note that the standard is focusing on crimes and fear of crime in so far as it (may) take place in public or semi public space.

Seven types of crime and fear as a specific category may be distinguished:

- burglary (residential/commercial);
- vandalism (including graffiti);
- street violence
 - assault/robbery;
 - fighting/assaults;
 - sexual or indecent assaults;
- car crimeⁱ
 - theft of car;
 - theft from car;
 - arson of car;
- theft
 - shop lifting;
 - pick pocketing;
 - theft of bikes, mopeds etc.;
- arson;
- fear of crime.

Regarding fear of crime there are three broad categories of urban places and locations generating fear of crime:



Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004

1. Locations with fear generating functions or features, such as streets or areas of prostitution, or locations with certain types of entertainment or activity that attracts individuals who also generate fear in other individuals. Crimes against the person are more likely to occur in such areas.
2. Locations, which are neglected or badly maintained, can give an impression of danger, because lack of occupancy can be a signal for a socially disorganised neighbourhood.
3. Locations with problematic urban design like lack of surveillance, isolation or lack of visibility by others, poor lighting or the lack of possibilities for orientation and last but not least the possible lack of alternative routes

Because the South Axis is being developed on top of and next to existing neighbourhoods, the what question is a matter of current problems in the existing area as well as problems that may arise in the near future both in the existing areas and in the project area. Moreover, the development on top of a transport corridor, raises plenty of new issues when it comes to crisis and disaster management (especially so since 11/9).

Who: stakeholders

To prevent crime and fear of crime in new and existing areas it is inevitable to involve stakeholders - people and organizations having a stake or vested interest in the problem and/or solution. The table groups listed below present an overview of possible stakeholders/target groups.

As the South Axis is such an important project, both the district council of Zuideramstel (where the building takes place) and the Amsterdam city council (ultimately responsible) have a say in the developmentⁱⁱ. Whereas the city council demands that all project in Amsterdam have to take crime prevention into account, the Zuideramstel district council has to make that happen.

Now imagine a small district council like Zuideramstel (less than 50.000 inhabitants) dealing with mega issues like building on top of a main transport corridor and big development companies whose focus is more on building now than crime problems later.

After the 'where, what and who-questions' have been answered there remain two important issues to be solved:

- what *guidelines* can be given for CPTED strategies, measures and actions which are necessary and feasible to make an area more safe and secure;
- how will these CPTED strategies, measures and actions be implemented and executed; what will the *co-operation process* in which all stakeholders participate look like?

Process

The central idea of this standard is that looking at a concrete plan for building or refurbishment in say London, Paris or Athens, the stakeholders will discuss the list of eligible strategies.



*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

A project team, working team or working group is the platform for this discussion. This working group may focus only at crime and crime prevention or may as well be the group responsible for the whole building or planning project (in which case integrating crime prevention in the project is only one of their tasks).

A definitive set of strategies, elaborated in concrete measures, will be chosen according to space, time, budget and personal preferences; the definitive measures will be recommended by the working group to a responsible body of authorities taking the final decision. Possible conflicts with other goals (apart from crime prevention) should be considered to make a balanced set of strategies. Crime prevention is a part of the whole of a planning and design process and can not be considered in isolation.

In the standard a step by step method is presented to help and support an effective and efficient process of implementation, execution and evaluation. This (process) part of the standard resembles procedures elaborated in the international standards on Quality Management (ISO 9000 series) as well as standards on occupational health and safety management (like BS 8800) and standards on environmental systems (ISO 14001). A flow chart is presented including essential steps like:

The issuing of a **general mission statement** for a plan or project by the responsible authorities. They must initiate a process aimed at preventing crime and fear of crime in a new or existing environment by:

- giving a general objective for the future security and safety situation;
- within a specifically defined environment;
- and with involvement of certain stakeholders.

This 'mission statement' may be of a rather general and vague nature.

If not yet in operation a multi disciplinary working group will be set up which should include representatives of the stakeholder organisations involved in this particular design/planning process. The working group will follow a procedure, as part of its **planning document**, including 6 well defined steps:

Both the **mission statement** and the **planning document** of the working group are part of the third stage in the planning and development process on the South Axis, the **starting point memorandum (stage 3)**.

Step 1: Assessment or analysis

The working group will analyse the present or assess the future crime preventive and fear reducing performance of the environment specified in the mission statement.

The analysis/assessment shall include:

- Definition of nature and type of crime problems to be tackled (existing environment) or
- prevented (new environment),



*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

- Definition of factors - especially design features - that may directly or indirectly cause such problems or contribute to them.

A good example of an assessment of crime problems is the quick scan that was done for one of the first developments on the South Axis called Mahler. The Mahler project consists of several smaller projects and in 2000 a so-called quick-scan of the urban planning program of requirements was done. The plans of all Mahler projects were put together and the focus was on the public space in this project, concentrating on the relationship with the adjoining neighbourhoods in the north and south, traffic lanes for pedestrians and bikes and the consequences of the diagonal running through the entire Mahler project. In this case the focus was mainly on the problems arising from the design: *"Tell us what you see and what you think!"*.

The **ENV crime assessment** is part of the fourth stage in the planning and development process on the South Axis, the **programme of requirements (stage 4)**.

Step 2: Objectives

The working group shall define more precisely the objectives being pursued and the time by which they should be attained (project plan, milestones). It shall establish the objectives in more specific quantifiable figures. To choose realistic anchor points, the working group may use values, taken from a similar city, area or neighbourhood serving as a reference. The working-group could indicate the objective values as 'equal to', 'minimum % better or "maximally % worse' than the reference area.

The **ENV defining of objectives** is also part of the fourth stage in the planning and development process on the South Axis, the **programme of requirements (stage 4)**. On the South Axis, this is also the last stage in which the Zuideramstel district is in charge.

Step 3: Plan

The working group shall draft a plan containing

- a proposal of what most probably will happen in the near future if no measures are taken to prevent crime and/or fear of crime (thus extrapolating the crime analysis or assessment mentioned under step 1), the method of drafting scenarios might prove to be a useful tool in this stage;
- strategies probably most effective to reach the safety and security objectives formulated in step 2; see for possible strategies the 15 strategies summarized earlier
- measures and actions to be taken including costs and anticipated effects (assessment of performance). The ideal would be to present in the standard -or on a separate website- ideas about possible measures taken from real and concrete examples from different European countries and cities. However, the money to search, analyse and present this type of best -or worst- practices is not yet available.

The working group shall present the plan to the responsible body of authorities and all stakeholders. In a sense this is the result of a typical Crime and Safety Impact Report



*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

(CSIR), a purely Dutch CPTED process instrument. For Gershwin, one of the projects, the project management office of the South Axis wanted a more detailed analysis of safety issues and opted for a Crime and Safety impact Report (cCSIR). The CSIR is an instrument designed to make visible safety issues in a project and develop alternatives.

The CSIR requires the involvement of a number of stakeholders and in this case it was decided to involve the people living in the nearby suburb. Although involving those living in or close to a project area in an early phase of planning can mean plenty of discussion, this proved to be a worthwhile exercise in later stages of the project: as people were informed in an early stage, subsequent discussions went very smooth.

While involving residents proved to be a positive experience, it was decided not to do a CSIR for all individual projects. Main reason for this being the formal steps in the CSIR: compulsory public nature of reporting on risks and alternatives and the formal obligation to involve residents. It was felt that this could provide opponents of the project with free ammunition for legal action.

In that regard the ENV 14383-2 is far more flexible and less formal, which makes it more acceptable to those fearing delays and easier to fit into an existing planning and development process.

The **ENV plan** is part of the fifth stage in the planning and development process on the South Axis, the **urban development plan (stage 5)**. This is the first stage in which the responsibility for a project is transferred from the Zuideramstel district to the city of Amsterdam.

Step 4: Decision by (local or regional) authorities

The authorities shall decide:

- which strategies and measures have to be implemented
or the responsible body shall decide, on the basis of the plan;
- which aspects have to be elaborated further by the working group
or the responsible body shall decide ;
- on the measures to be taken, including procedures, responsibilities and costs.

At the moment a final decision on the measures is taken, this will be laid down in a contract between all stakeholders. The problem on the South Axis is the dual responsibility, where the district council of Zuideramstel is responsible for the first part of a project and the Amsterdam city council for the second part.

The **ENV decision by authorities** is part of the fifth stage in the planning and development process on the South Axis, the **urban development plan (stage 5)**. As mentioned before, the urban development plan is the first stage of planning and development that is de responsibility of Amsterdam city and not of Zuideramstel district.

Step 5: Action and implementation

The measures described in the contract (see step 4) are implemented.



*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

The **ENV action and implementation** is part of the sixth and seventh stage in the planning and development process on the South Axis, the **preparation of realization (stage 6) and the execution of realization (stage 7)**. It is also part of the **eighth and final** stage of planning and development on the South Axis, the **management of the area (stage 8)**. In this final stage, responsibility is transferred back from Amsterdam city to the Zuideramstel district.

Step 6: Checking and corrective action

The measures implemented in step 5 are evaluated.

In case crime problems and/or fear of crime occur or stay at an unacceptable level (reference point are the objectives formulated earlier in step 2), the (local or regional) authorities decide upon corrective action, such as taking additional crime preventive measures or (further) refurbishment of the area.

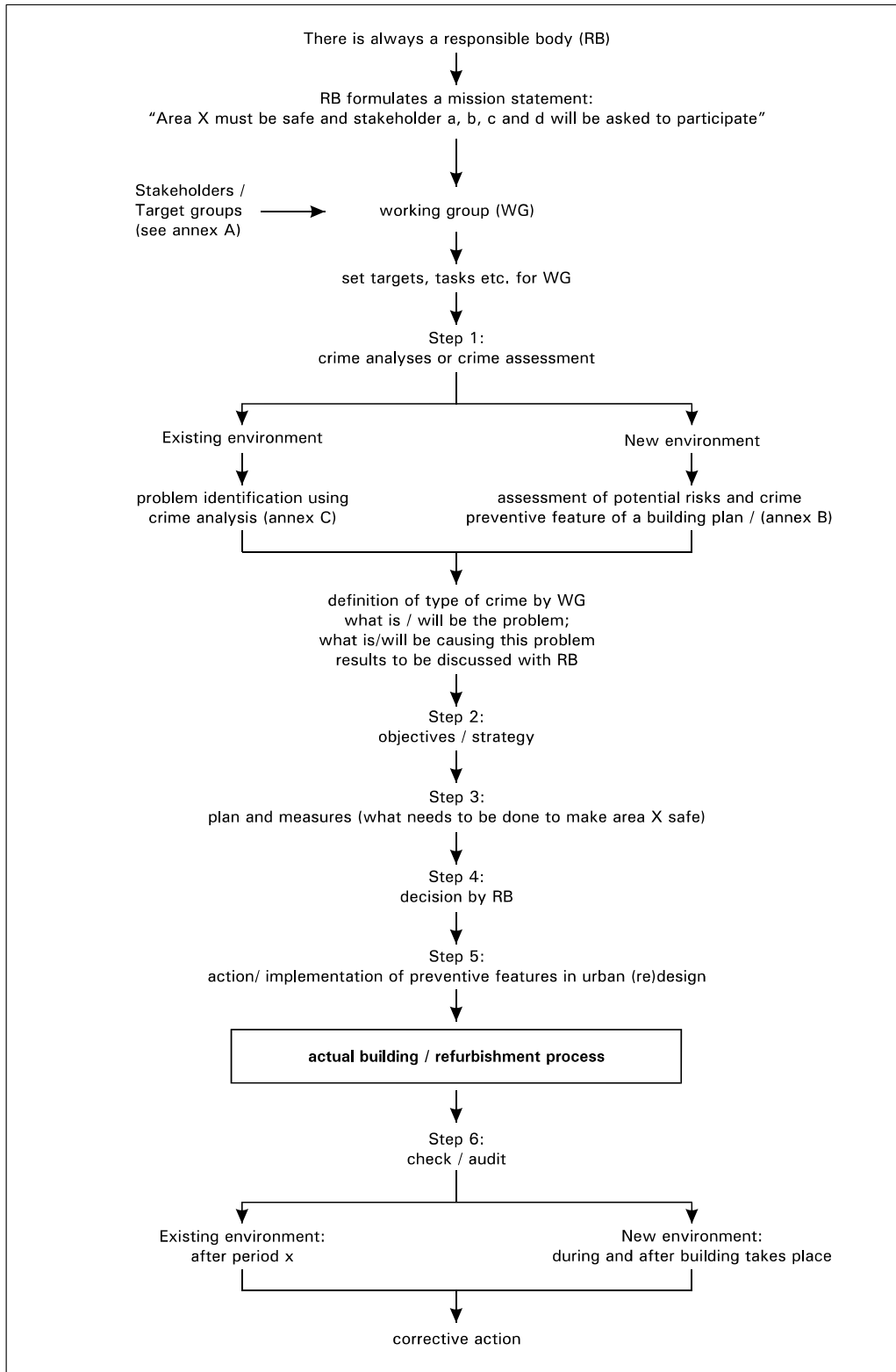
The **ENV checking and corrective action** is also part of the sixth and seventh stage in the planning and development process on the South Axis, the **preparation of realization (stage 6) and the execution of realization (stage 7)**. **Apart from that, it is part of the eighth and final**

stage of planning and development on the South Axis, the **management of the area (stage 8)**. In this final stage, responsibility is transferred back from Amsterdam city to Zuideramstel district.

Step 1 to 6: Summary

This whole ENV 14383-2 procedure is summarized in the table below. In this table local or regional authorities are included as 'responsible body' (RB).

Proceedings of the 9th Annual
 International CPTED Conference 13-16 September 2004





*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

Conclusion

It is promising to see the growing awareness to crime, even in a major project like the South Axis. By chance the development of a new CPTED process instrument, the ENV 14383-2 on crime prevention through urban planning and design, coincided with the demand for a flexible procedure to incorporate crime prevention on the South Axis.

Even though it is not easy to incorporate such an instrument into an existing planning and development process, it can be done. One must, however, take into account the political side of things: the most important resistance comes from the fear for yet another procedure to be taken into account, causing delays or giving ground for protest.

Especially on a scale like the South Axis the number of stakeholders is enormous, just like the financial risks. Crime prevention through urban planning is not compulsory, hence we need to find a way within the existing framework and make sure the issue is on the table in the first stages of planning and development.

The ability to show that CPTED works (the costs and benefits of crime preventionⁱⁱⁱ) and that taking CPTED into account can actually increase value (as recent research in the Netherlands indicates^{iv}) sure helps to be invited to the party. The ability to incorporate a CPTED procedure in a planning and development process, allows you to stay.

A golden introduction is the ENV 14383-2. The only requirements are a city council or district council (responsible body) calling for attention for safety and a working group to look at CPTED. Using the ENV, translating it into the average planning and development process, we can now incorporate CPTED in the planning and development of any project.

For more information on the South Axis in English see <http://www.acturban.org/biennial/ElectronicCatalogue/Amsterdam/amsterdam.htm>

For more pictures and information in Dutch see www.zuidas.nl .

Currently he is working as crime prevention co-ordinator in the city of Groningen (population 170.000) and is involved in a review of cost-benefit analysis in crime prevention on behalf of the European Union.

About DSP-groep

Profile

Since its foundation in 1984, DSP-groep has gained broad experience regarding research, consultancy and management in various fields of expertise related to solving strategic social problems in communities. DSP-groep employs over 60 people, each with their own qualities and expertise in one or more subject areas. We feel strongly connected to our work and our customers but we keep enough distance to carry out our assignments both professionally and independently. We ensure our work is practical in its application and always consider the future implications once our work is done.



*Proceedings of the 9th Annual
International CPTED Conference 13-16 September 2004*

Areas of expertise

DSP-groep works for local, regional, national and European Authorities and institutes and the private sector. We stay well informed of developments in our specialist subject areas and we know what needs to be done to make policy work. Over the years we have accumulated substantial experience in the fields like: health, youth policy, youth care, sport, social policy, urban redevelopment, and community development work. The main field of expertise of the bureau has always been safety policy, crime prevention, law enforcement and crime analysis. Our staff regularly lectures at international workshops and conferences in major cities such as Barcelona, Washington, Sydney, London, Helsinki and Tokyo.

Research and consultancy

DSP-groep is specialised in quantitative and qualitative research. For example, gathering and analysing new crime data, fear of crime and crime reduction/prevention, adapting and applying existing data and developing and implementing monitoring systems and registration systems. Sound policy involving all stakeholders and implementation into practice are of central importance to us, whether it concerns research about specific target groups, satisfaction with new services or the results of an experimental approach.

DSP-groep always bases its recommendations on a thorough analysis of the policy and the organisation. Research and consultancy are often coupled to one another in practice. With our expertise we are able to offer well grounded advice on policy and organisational changes and we provide beneficial and practical recommendations to customers. We may also opt for advice in the form of courses, training seminars or coaching.

End notes

ⁱ Including motorcycles, scooters, etc.

ⁱⁱ The city of Amsterdam is divided into a number of districts, each district having its own council. The Amsterdam city council is responsible for issues which concern all districts. As such the districts are not autonomous and in this case both city council and district council have strong interests in the development of the South Axis.

ⁱⁱⁱ The European Commission has called for a review of cost-benefit analysis in crime prevention. The international project team is led by DSP-groep. Information can be found on the website of European Crime Prevention Research and Consultancy (www.ecprc.net).

^{iv} A 2004 Dutch report on property values in relation to crime levels, indicates that crime levels may account for a nearly 10% difference in property values.