

Publishable summary



CPSI – *Changing Perceptions on Security and Interventions* – aimed to create a methodology to collect, quantify, organize, query, analyse, interpret and monitor data on actual and perceived security, determinants and mediators.

The project's four main objectives were to:

- Develop a conceptual model of actual and perceived security and their determinants,
- Design a methodology to register and process security-related data,
- Develop a data warehouse to store amassed data, and
- Carry out an empirical proof-of-principle study to test the model, methodology and data warehouse.

In CPSI we focused on security related to “everyday” crime, such as theft, assault and vandalism. The CPSI methodology, however, can be applied to other areas of security as well, such as terrorism or financial security.

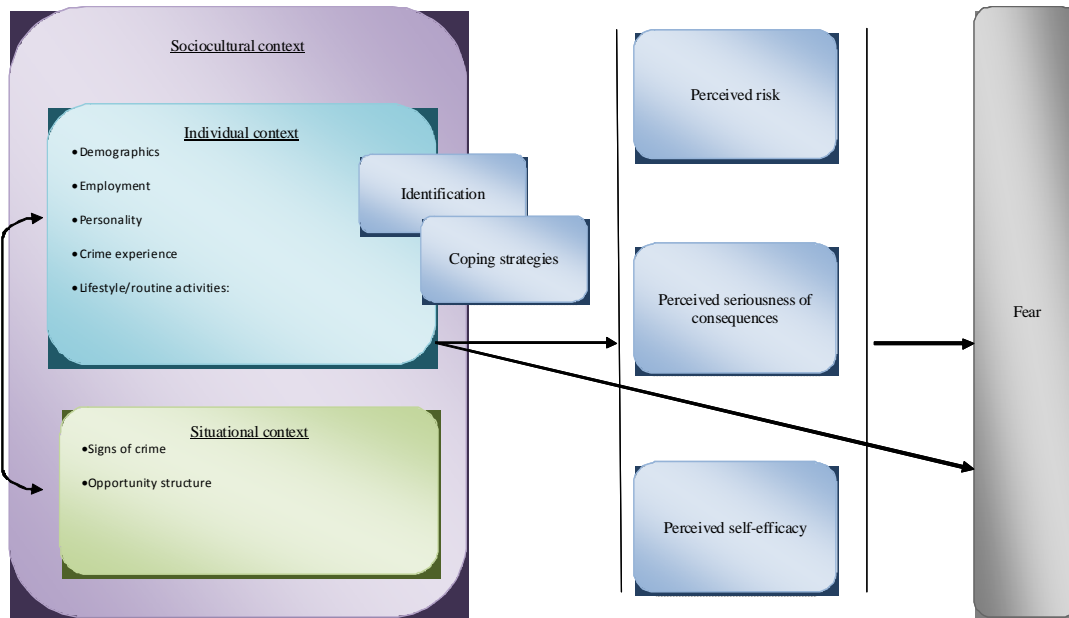
During the life of the project, we carried out many activities towards realizing these objectives.

Work Package 2

In order to construct the conceptual model, we conducted a literature review on factors affecting perceived security, operationalised as fear of crime, and a morphological analysis. The latter being a method for structuring and analyzing the total set of relationships contained in multi-dimensional, non-quantifiable, problem complexes. In a nutshell, it is a method through which dimensions and characteristics can be identified in order to model problems and concepts that are otherwise too diffuse and unstructured to work with. The result of this technique is a limited set of models that represent logically and normatively acceptable combinations of key factors.

In short, the resulting conceptual model (see below) describes fear of crime as an interaction between perceived risk, characteristics of the individual and characteristics of the situation.

This model provided the basis for the perceived security survey in which each factor was represented by one or more items in the survey questionnaire. In addition, it provided the basis for the information sought in the media analysis on the one hand and the variables collected from existing actual security databases on the other.



In addition in WP2, we conducted desk research on public opinion. This work encompassed secondary analysis of existing surveys, a study of the way that new forms of citizen journalism influence public opinion, and literature review of the sociology of insecurity.

Finally in WP 2 we conducted ethical parallel research during the entire life of CPSI. This ethical parallel research anticipated and addressed ethical issues as they arose in the project. In their research, the ethicists alerted the consortium to ten ethical issues, such as the use and handling of personal data and the representativeness of the participants in the morphological workshops. Analysis of legal aspects related to data use and protection was conducted by Berenschot Group, who was contracted specifically for this work.

Work Package 3

Central to the CPSI methodology is the data warehouse in which security-related data are stored. Considerable time and effort was devoted to designing the specifications of the data warehouse to accommodate the different types of data it would have to store: questionnaire data, data on security reporting in the media, and crime statistics.

After the first year, the data warehouse was fully operational and accessible to relevant consortium members via a web portal. The interface with the data warehouse allows the user to create overviews in either tabular or graphic form of any of the data contained in the data warehouse. In this way it is possible to request information on, for example:

- Number of crimes x neighbourhood
- Fear of crime x age group
- Most used media x fear of crime

Moreover, the data warehouse includes a GIS-based functionality with which it is possible to receive a limited number of overviews on a map of the separate neighbourhoods in the pilot area.

Work Package 4

Work Package 4 was primarily concerned with data collection in the empirical study. We ascertained the cooperation of the Research and Statistics department of the city of Amsterdam, who provided the access to data on actual security in the city. We also designed the perceived survey questionnaire and used it to collect data from citizens in Amsterdam, The Netherlands, the location for the empirical study.

In WP 4.3 we conducted the media analysis on Dutch mass media sources. Specifically, this entailed indentifying key words – in Dutch – related to security, and Dutch Internet sites of mass media sources (newspapers, TV stations, radio stations). These sites were “crawled” every day for several months and each time a key word was detected, the link to that webpage was registered. Information on the links and key words that triggered them was stored in the data warehouse.

Finally, in WP 4.4 we conducted a cultural analysis, which looked at security culture across EU countries and how culture guides security and threat perception. The work comprised a differential analysis of European security culture: it identified groups of European Union member states and their societies that share similarities in terms of security culture, e.g. in the relationship between human/citizen security and national/state security.

Work Package 5

Work Package 5 was responsible for the quantitative/statistical analyses of the data contained in the data warehouse, and the qualitative analysis of the work on public opinion and culture. The quantitative analyses were conducted on the data collected in the empirical study and media analyses. This included information on perceived security, actual security/victimisation, background characteristics of respondents and their neighbourhoods, and reporting of security issues in electronic media. Data were aggregated to the neighbourhood level to avoid potential identification of individual respondents. Relationships between individual elements of the conceptual model were tested using structural equation modelling. Due to the aggregated nature of the data, we were unable to test the conceptual model as a whole. Though analysis will continue after the end of the project, analysis up until now shows that media reporting and neighbourhood environmental characteristics are particularly strongly linked to perceived security.

The quantitative analyses also identify a limited data set to be collected during “actual” implementation by end users: the Standardised EU Security Monitor. This consists of

- 29 items to measure perceived security (reduced from the original 542 items)
- 5 * 5 items on use of specific media
- 5 demographic variables: age, gender, income categories, household size, ethnic background
- Postal code

The qualitative analyses utilized the data from the empirical study and the cultural analyses. Specifically, FOI modeled these data to morphological principles. This resulted in a number of morphological models, which provide an alternative way of looking at the data.

Work Package 6

Work Package 6 dealt with the dissemination of the foreground. In CPSI, we have been very active in presenting at conferences, launching a website (<http://www.cpsi-fp7.eu>), producing a project video

(<http://www.youtube.com/watch?v=uK32MMQRJYo&fmt=22>) and flyer for the DG Enterprise and Industry website (http://ec.europa.eu/enterprise/security/doc/fp7_project_flyers/cpsi.pdf). We have also held two project-related symposia for project partners, Advisory Board members and external parties.

In short, the main results achieved are 1) the development of the conceptual model of perceived security, 2) the development and filling of the data warehouse with data collected in the empirical study in Amsterdam, 3) the completion of the empirical study including analyses, 4) extensive (international) dissemination, and 5) the development of a Standardised EU Security Monitor.

In CPSI we have outlined a way to monitor security information over time. Though this, in and of itself, is not new, what makes CPSI an innovative project is a complete integration of monitoring different kinds of security data. In the CPSI system, we describe how to monitor and integrate data on actual security (e.g. crimes), data on how citizens perceive (their own) security, security-related reports in the mass media and the implementation of interventions designed to improve security. We provide an overview of which data need to be monitored, for example, which questions must be asked to measure perceived security. In addition, we provide tools to analyze the data in order to answer specific questions, such as “What conditions must exist in order to successfully implement a particular security intervention?”

The final product of CPSI is a CD-ROM which provides on the one hand all the scientific and technical details about the work in the project. On the other hand, the CD-ROM provides end-users with a clear and easy-to-navigate overview of what the CPSI system does and can mean for them. This part will demonstrate for the end user how the CPSI system works, what they need to get started, what they can do for themselves and what services the CPSI consortium offers to help them implement the system in its totality in their area.

Many organizations currently monitor security data over time. However, these monitors are mostly geared exclusively towards actual security. Perceived security is often not measured and if it is, is usually not statistically integrated with actual security, thus negating the added value of its measurement. As far as the effectiveness of interventions is concerned, if this is measured at all it is usually a one-time event, thus making comparisons with the situation before the intervention impossible. The strength of the CPSI system is that it is developed specifically for the integration of the information needed to answer questions regarding not only trends in crime rates or citizens' fear of crime, but also the relation between the two. It is also uniquely able to relate these concepts to the effects and effectiveness of interventions designed to increase security. On a broader, societal scale, the CPSI system also takes into account reporting in the media. Having a better idea of how the media affects security-related processes, puts policy makers and implementers in a better position to anticipate changes in actual and perceived security. In allocating resources most effectively and efficiently, the intelligence as can be provided by the CPSI system is indispensable.

For more information about CPSI or any of the project partners, please contact contact-cpsi@tno.nl.