



Strengthening Local Authorities' Capabilities and Capacities Regarding the Protection of Public Space: A Co-Productive Approach

*Vivian V. Gravenberch, Paul van Soomeren,
Sara Houweling, Carla Napolano, and Pilar de la Torre*

INTRODUCTION

Have you ever heard the anecdote of the crime expert who went on a field visit to the European Quarter of Brussels? Together with other specialists and practitioners in the field, they went on a tour to a Public Space of Interest and the Regional Crisis Centre to observe the city's efforts and approach to the protection of public space. On their way to the airport

V. V. Gravenberch (✉) • S. Houweling
Dutch Institute for Safe and Secure Spaces (Stichting DISSS),
s-Hertogenbosch, The Netherlands
e-mail: viviangravenberch@diiss.eu

P. van Soomeren
DSP-groep, Amsterdam, The Netherlands

C. Napolano • P. de la Torre
European Forum for Urban Security (Efus), Paris, France

© The Author(s) 2025

I. Gkotsis et al. (eds.), *Paradigms on Technology Development for Security Practitioners*, Security Informatics and Law Enforcement, https://doi.org/10.1007/978-3-031-62083-6_28

after a fruitful day, the crime expert was cornered at a nearby train station by loitering locals and had to lock themselves in a public restroom to avoid being robbed. The field visit took place as part of an EU-funded project named Secu4All, for which a consortium travelled through Europe to empower local and regional authorities with theoretical knowledge and practical tools to ensure the security of public spaces against potential threats. The example above underlines that the security of public space is a complex challenge, even for a city that is considered the de facto capital of Europe, and that often major contrasts occur between the security measures in public spaces, regardless of physical distance between them. Adding to this complexity is the open character of public spaces, keeping these spaces secure whilst adhering to their open and accessible nature is a precarious matter. Not to mention ethical or financial considerations, and the interests of citizens frequenting these spaces. Despite ample knowledge, experience and goodwill being present, there appears to be a gap when it comes to combining these valuable insights and different stakeholders working together in the security of public space. This chapter aims to answer the question *to which extent a partnership approach can strengthen local authorities' capabilities and capacities in protecting public space*. To begin, we will delve into the factors that define the protection of public space. Next, common approaches in defining the risks to public space will be discussed, followed by an overview of the different measures that can be implemented to treat the risks to public space. Subsequently, a practical implementation of this theoretical framework will be presented by outlining the stakeholder training as developed through the Secu4All project. Finally, the results of the stakeholder training will be discussed, as well as the conclusions drawn from this research and the discussion it provokes.

LITERATURE REVIEW

In the last few years, the protection and security of public spaces have continued to be a priority for European institutions and national governments, as well as local authorities who play a fundamental role in the implementation of actions. As recently stated by the Council of the European Union in the Conclusions on the Protection of Public Spaces document, local authorities are relevant actors for cooperation and the promotion of synergies in the prevention of terrorist attacks, as well as in the security and protection of public spaces. The Security, Democracy and Cities Declaration adopted in Nice on 22 October 2021 emphasises the

need for cities and regions to make significant investments to protect public spaces, evaluate security needs as early as in the design stage, anticipate and respond to crises, and offer citizens the best possible protection [3]. This requires mobilising the best available expertise and technologies, depending on the context. The chapter poses three sub-questions to the abovementioned central question: (1) What defines the protection of public space? (2) What are the common approaches to identifying the risks to public space? (3) Which measures can be implemented to treat the risks to public space? By exploring and answering these questions, the chapter hopes to provide insight into how different stakeholders can work together to enhance the protection of public spaces.

Protecting Public Space

According to the European Commission, public space refers to any area that is accessible to and used by the general public, including streets, parks, squares, and other open spaces [4]. Public spaces are not only important for civic life and social interaction, but they also play a critical role in shaping the character and quality of cities and communities. However, public spaces are vulnerable to a range of safety and security threats, including crime, terrorism and petty crimes. It is crucial to take steps to protect them against these risks. Ensuring security in public space is a fundamental human right, and it is important to make cities and human settlements safer for everyone. Goal 11 of the Urban Agenda for Sustainable Development reflects this aspiration, and the EU aims to enable all citizens to live, work and participate in urban life without fear of violence or intimidation [5]. The EU Forum¹ on the protection of public spaces identifies vulnerability assessments as a good practice in protecting public spaces against terrorist threats. It is recommended that good practices in protecting public spaces include conducting vulnerability assessments, developing and implementing facility or event security plans, and identifying appropriate security measures for the specific function of the facility or event.

¹Webpage of the EU Forum on the protection of public spaces. <https://ec.europa.eu/newsroom/pps/items/665688/en>

Defining the Risks to Public Space

Defining the risks to public space is a complex process that involves considering various factors that can contribute to safety and security threats. A first commonly used approach to identifying risks to public space has been elaborated on in the Risk Management Guidelines 31000:2018, published by the International Organization for Standardization (ISO) [8]. These guidelines provide a detailed overview of how to set up a *framework*, build upon *principles* and create a *process* for risk management. Organisations are exposed to a variety of internal and external factors that can impede their goals and objectives. Different types of risks (such as sexual harassment, feelings of insecurity, terrorist threats and different forms of petty crimes) can have an impact on their success. Managing these risks is an ongoing process that involves defining a strategy, setting objectives and making informed decisions [12]. It is important to keep in mind that risks can change over time, and so can organisations. Therefore, a continuous assessment cycle should be adopted when assessing risks for an organisation. The same approach is followed in a recently issued European standard CEN/TS 14383-2:2020² which is, like the ISO standards, available from every national standardisation body [6].

The purpose of risk management is to create and protect value, improve performance, encourage innovation and support the achievement of objectives. The *principles* of effective and efficient risk management are essential for the creation and protection of value, improved performance, innovation and the achievement of objectives. The risk management *framework* assists in integrating risk management into significant activities and functions, and its effectiveness depends on its integration into the governance of the organisation, including decision-making. The risk management *process* involves four basic elements that can help create a capable guardian against a likely offender of a crime in public space: identification, analysis, evaluation and treatment [7, 8]. *Risk identification* involves examining specific public spaces that could be vulnerable to different types of threats. Identifying vulnerabilities can help understand the perspective of potential offenders. *Risk analysis* involves analysing the impact and

²The new CEN TS 14383-2:2022 supersedes the old TR. It builds on ideas from risk management (ISO 31000 series), Quality management (ISO 9000 series), CPTED (ISO 22341:2021) and new approaches, new types of crime, and UN/EU standards/documents (like the ICCS).

severity of a given act and the likelihood of a specific type of threat occurring.

The new European-focused standard, CEN/TS 14383-2:2022, a Crime Prevention Through Environmental Design (CPTED) approach, places a greater emphasis on involving stakeholders such as residents and locally involved partner groups, including democratically elected local stakeholders like a city council, in the participatory process [6]. *Risk evaluation* involves determining which risks are considered acceptable and which are not [8]. This process involves deciding which degree of risk is acceptable, the chances of it occurring and its potential impact. The responsible body should work with their team and experts from different angles to determine the acceptable level of risk. Another key element of the risk management process is *risk treatment*. Risk treatment involves selecting and implementing appropriate measures to modify risks, and there are four main options for treating risks: avoiding, reducing, sharing or accepting the risk. The choice of risk treatment option will depend on the specific context and goals of the organisation, as well as the characteristics of the risk itself [6, 8].

Treating the Risks to Public Space

The multiple-helix approach emphasises collaboration between different stakeholders to protect public space, recognising that safety and security challenges are complex and require a coordinated effort [12, 13]. It involves representatives from different sectors working together to identify and address risks in public spaces through joint risk assessments, sharing information and resources, and developing partnership strategies. This approach can build trust and collaboration between stakeholders, foster a sense of shared responsibility and create safer and more secure public spaces for everyone. A very effective example of a multiple-helix approach towards public space protection is Crime Prevention Through Environmental Design (CPTED). CPTED is a multidisciplinary approach that aims to reduce and prevent crime, safety and security issues, including terrorism, and address people's feelings of insecurity in public space and soft targets. It is a feasible and effective approach, both in new and pre-existing environments. This has been shown earlier in the EU COST-action TU 1203 (Cooperation in Science and Technology) and the EU Horizon 2020 project Cutting Crime Impact [2, 3]. This approach has also been standardised both by the European Committee for

Standardization (CEN/TS 14383-2:2022) and the International Organization for Standardization (ISO 22341:2021) [6, 9]. The CPTED approach, as promoted by the International CPTED Association (ICA)³ and also called the Security by Design approach, is a ‘multidisciplinary crime prevention approach that employs urban design to diminish victimisation, discourage offender decisions that lead to criminal acts, and foster a sense of community among residents’.

METHOD AND APPROACH

Based on its previous works, and aware of the need to enhance the role of local authorities and frontline actors in charge of the protection and security of public spaces, the Secu4All project has developed and conducted a multi-stakeholder training. This training involves local authorities, law enforcement, civil protection, medical emergency services, private businesses, private security firms, residents and their organisations and other stakeholders to improve their preparedness, response and resilience to any man-made threat and risk present in public spaces. Originally the multi-stakeholder consisted of an interactive and in-person training, followed by an in situ (on-site) training. Finally, multiple field visits are carried out to exchange knowledge and expertise between project partners on the security of public spaces. Below, the design of the training will be outlined, as well as the adaptations necessary to meet local and European health and safety guidelines due to the COVID-19 pandemic.

Online Training

Due to the COVID-19 pandemic, it was necessary to organise a training programme online. This online training programme requires a virtual platform to facilitate remote learning and collaboration. The following methods and approaches have been used to ensure that the training programme remains effective and interactive during a period of working in isolation and engaging all trainees. Module 1 introduces trainees to risk and vulnerability assessment, focusing on the challenges and opportunities associated with protecting public spaces. Trainees participate in online lectures, group discussions and interactive exercises. They are given

³For further reference, see the International CPTED Association (ICA): <https://www.cpted.net>

assignments to complete, including a simplified version of a risk assessment, and work in small groups to encourage collaboration and discussion among trainees representing different types of stakeholders. Module 2 provides knowledge on CPTED, including the environmental context of crime and security risks, definitions, history, terminology and basic principles for process and partnerships. Module 3 aims to improve the knowledge of local authorities on technologies used to secure and protect public spaces, allowing participants to identify suitable technologies and understand ethical and legal use and data management. Module 4 aims at training local authorities to communicate effectively with different stakeholders and the population in crisis situations or terrorist attacks occurring in a public space. The module covers identifying the key definitions relevant to crisis communication, understanding the objectives of each phase of the crisis communication, identifying the relevant stakeholders and implementing the crisis communication techniques.

The online training programme was evaluated through a questionnaire consisting of four statements rated on a 1–5 point scale assessing the informativeness of the session, level of understanding of the contents, presenter's ability to explain the content in an understandable manner and relevance of the session to daily work. Participants also provided feedback and suggestions for improvement to the hosts of the online training session. The results of this evaluation are discussed in the results section of this chapter.

In Situ (On-Site) Training

In order to ensure the safety and security of public spaces, trainees are required to apply the principles of the multiple-helix approach. This approach involves collaborative efforts from various sectors such as the government, private sector and civil society. After completing online training modules, each trainee is given a workbook to record their observations in the Public Space of Interest (PSOI). The PSOI that trainees and trainers visit at the start of the day forms the basis of the rest of the training day. Trainees are expected to identify vulnerabilities and possible opportunities for security by design, as well as technological measures and crisis management tools that are already present or are lacking at the PSOI. Following this, trainees are tasked with marking three zones around the PSOI, including access roads and car parks. They must then place stickers with 'risk icons' on a map in each zone to represent different types of risks such

as theft, burglary, vehicle attack, sex crimes, terrorist threats and other forms of risks to public space.

This activity serves as a warm-up exercise to prepare trainees for the in situ training modules. The four training modules cover topics such as identifying vulnerabilities, discussing together what they each define as high, medium or low risk, implementing UPDM-US, using technological solutions to enhance security and communicating during a crisis. These modules are designed to provide trainees with hands-on experience in identifying and mitigating risks in public spaces and to learn to speak each other's language. Scenarios are presented in each module that simulate real-life situations where one of the earlier identified risks actually occurs. By utilising the multiple-helix approach and applying the principles learned in the online and in situ trainings, trainees are better equipped to promote security and safety in the real world. This not only benefits the trainees themselves, but also contributes to the overall safety and security of public spaces.

Field Visits

To exchange knowledge and expertise and further describe common approaches in defining risks in public space, four field visits to major European cities were organised. In Riga, Latvia, the consortium visited the headquarters of the Riga Municipality Police (RPP). In Rotterdam, the Netherlands, the main objective was the city's central train station, *Rotterdam Central Station* and the public space surrounding the station. In Brussels, Belgium, the Robert Schuman Square, located in the area which houses several EU buildings, and the Regional Crisis Centre were observed and discussed. Finally, the consortium travelled to France to visit the Urban Supervision Centre (USC) in Nice. The goal of these visits was to answer the following question: *which measures are currently implemented to treat the risks to public space?*

One of the measures to treat risks to public space is video surveillance. In Riga, this led to the challenge of how to spend funding for video surveillance in the most effective way. The RPP now uses IT tools to determine the most effective positioning of cameras. These tools also support police work by providing an easier way to combine data, allowing for patrols to be planned more efficiently and thus supporting operators to be at the right place, at the right time. In addition, as for innovative and out-of-the-box options, the city has found that placing empty camera boxes

also forms an effective deterrent. In Brussels, the Regional Crisis Centre forms the city's hub for technological security solutions. Besides video surveillance, the centre provides communication technology allowing for different services to cooperate. Also available are a temporary camera service, drones and various tools translating footage to practical intelligence. Combining technological tools with CPTED principles, the city of Rotterdam has opted for a hidden video surveillance system in its design for a renewed *Rotterdam Central Station*. For example, security cameras are placed in the small spotlights in the main hall of the train station, unnoticeable for commuters rushing past. The underlying idea is that this method of surveillance avoids fear-mongering among citizens.

CPTED and UPDM-US were topics which mostly came up during the field trips to Rotterdam and Brussels. Prior to its redevelopment which started in 2004, *Rotterdam Central Station* and its vicinity were dimly lit and uninviting. The area had deteriorated into a hub of criminal activity, including harassment and drug dealing. Thus, the redevelopment of the station did not only provide an opportunity to reorganise the public transport system, it also allowed for the area to be overhauled into an international mobility hub combining innovative architecture, liveability and security. The design combines visually pleasing natural materials with anti-terrorism features, hosts various shops, bars and restaurants attracting visitors and gives way to pedestrians and cyclists. The CPTED and UPDM-US approach is also visible in the design of the Schuman Square in Brussels. Located in the political centre of Europe, the square was designed combining aesthetics with practicality. This was done using appropriate traffic lights and lighting, placing street furniture and making strategic use of planting. Besides applying technological innovations and UPDM-US principles, the cities visited also acknowledge the strength of forming partnerships and involving citizens in its efforts to improve security.

RESULTS

Overall, the online training programme provides a comprehensive and engaging learning experience for trainees including field visits for inspiration during the training exercises, while also ensuring that safety measures are in place, which was necessary to protect the trainees during the COVID-19 pandemic. By using a virtual platform that supports remote learning and collaboration, trainees are able to participate in the training

programme from the comfort and safety of their own homes or workplaces when needed.

The training programme provides trainees with the necessary knowledge and skills to effectively protect public spaces and improve urban safety and security. In addition, the online delivery of the training programme provides some benefits that are unique to remote learning. For example, trainees have the opportunity to learn from experts in urban safety and security from around the world and share their knowledge and experiences with others from different sectors and professions. The online format also allows for more flexibility in scheduling and reduces travel costs compared to in-person training programmes.

As mentioned in the methods, participants in the training were requested to complete an evaluation questionnaire. In this questionnaire, the participants rated various statements on a 1–5 point scale, 1 meaning ‘strongly disagree’ and 5 meaning ‘strongly agree’. The statements referred to the session being informative, the participants understanding the contents as well as the helicopter view of the session, the presenter explaining the content in an understandable manner and the content being relevant to the daily work of the participants. Due to HR issues and lack of engagement of the participants, one training group decided to terminate the training and cancel the in situ. This illustrates the challenges that came with working from home and remote learning during the COVID-19 pandemic. Within the other participant groups, the evaluation results for the online training were overall very positive, and critical feedback was mainly aimed at technical challenges in navigating the tools that were used to meet and train online. In addition, participants generally commented that they would have preferred an in-person training to an online session, and that the density of information combined with the presentation style was sometimes perceived as demanding and tiring for the participants. Other feedback was that some of the modules could have used more practical examples.

The in situ training received positive feedback for its interactive and in-person approach. The feedback highlights the need for interdepartmental cooperation in assessing the risks associated with public spaces. Recurring problems include homeless individuals engaging in pickpocketing or threatening behaviour, sexual harassment and feelings of unsafety. Risk assessments should consider various settings and involve multiple experts. Examples of ineffective vehicle mitigation measures are also highlighted. The importance of inviting an expert on vehicle mitigation thus becomes

apparent. As for the variety in expertise, however, some participants commented that not each module was as applicable to their daily work (e.g. the module on crisis communication may not be as relevant to planners and/or urban designers as to police officers) [10, 11]. In addition, it was expressed that the more practical an example or exercise, the better.

CONCLUSIONS AND DISCUSSION

In conclusion, a partnership approach can significantly enhance local authorities' capabilities and capacities in protecting public space. To achieve this, it is important to (1) define what constitutes the protection of public space, (2) identify the common approaches to defining risks to public space and (3) implement effective measures to mitigate these risks. By working together, different stakeholders can enhance the protection of public spaces and create a safer environment for everyone. This study highlights the effectiveness of offline training where multiple stakeholders are brought together to collectively solve safety issues. By providing each stakeholder with snippets of information, the study demonstrates the importance of collaboration and the expertise available within a network. The study also emphasises the value of experiential learning and breaking away from traditional teaching methods, ensuring that everyone is involved and has a voice. The study further highlights the importance of a multidisciplinary, multicultural approach to problem-solving. By learning to speak each other's language, stakeholders can more effectively reach a joint conclusion. Additionally, the study found that addressing petty crime and public safety for all (including women) was of greater concern to stakeholders than terrorism. Therefore, it is recommended that a gender approach be taken when addressing safety concerns in public spaces. This study also emphasises the importance of a diverse stakeholder group and consideration of different experiences when addressing safety concerns. Finally, although not tested yet in a real-life scenario, the use of AI in the form of chatbots based on GPT technology can help bridge multidisciplinary, multi-helix and cultural differences in the security industry. It facilitates communication between different parties and can lead to new insights and innovative solutions to complex security problems. It can also be valuable in crisis situations where fast and effective communication is crucial.

Acknowledgements This project received funding from the European Union’s Internal Security Fund—Police under Grant Agreement no. 952789. This chapter reflects only the authors’ views, and the Research Executive Agency and the European Commission are not responsible for any use that may be made of the information it contains.

REFERENCES

1. Barosso, I., Cardia, C., Nicolini, U., & Wellhoff, F. (2014). *Milan: Crime prevention through urban design*. Academic research and training. <http://costtu1203.eu/downloads/cost-tu1203s-results/>
2. Cutting Crime Impact. (2018). *Review of State of the Art: CP-UDP*. https://www.cuttingcrimeimpact.eu/download/may-2019_d25_1014042704.pdf
3. Efus. (2017). *The Efus Manifesto: Security, democracy and cities: Co-producing Urban Security Policies*. <https://efus.eu/the-manifesto/>
4. European Commission. (2017). Action Plan to support the protection of public spaces. p. 2. Retrieved on August 6th, 2024. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017DC0612>
5. European Commission. (2015). The European Agenda on Security.
6. European Committee for Standardization (CEN). (2022). *CEN TS 14383-2:2022*. Retrieved on November 30th, 2023. <https://www.nen.nl/en/cen-ts-14383-2-2022-en-304865>
7. Gravenberch, V. V. (2022). Routine activity theory: how to protect public spaces. *City Security Magazine*. <https://citysecuritymagazine.com/security-management/routine-activity-theory-how-to-protect-public-places/>
8. International Organization for Standardization (ISO). (2018). *Risk management-guidelines*. <https://www.iso.org/obp/ui/#iso:std:iso:31000:ed-2:v1:en>
9. International Organization for Standardization (ISO). (2021). *Security and resilience – Protective security – Guidelines for crime prevention through environmental design*. Retrieved on November 30th, 2023. <https://www.iso.org/standard/50078.html>
10. Secu4All. (2023). D4.4 Report on the training cycle implemented in Germany by DEFUS. In *Training local authorities to provide citizens with a safe urban environment by reducing risks in public spaces* (p. 14).
11. Secu4All. (2023). D5.3 Field trip: Rotterdam tools and measures preventing acts of insecurity in public spaces. In *Training local authorities to provide citizens with a safe urban environment by reducing risks in public spaces* (p. 13).
12. Van Soomeren, P., & Gravenberch, V. V. (2023). *Crime prevention can be effective and fun*. <https://www.diss.eu/publications>

13. Van Waart, P., Mulder, I., & de Bont, C. (2015). A participatory approach for envisioning a smart city. *Social Science Computer Review*, 1–16. Retrieved on November 30th, 2023. https://www.researchgate.net/profile/Peter-Van-Waart/publication/283256188_A_Participatory_Approach_for_Envisioning_a_Smart_City/links/5757273d08ae04a1b6b68f16/A-Participatory-Approach-for-Envisioning-a-Smart-City.pdf

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copy-right holder.

