

Selected Aspects of Polish Platform for Homeland Security Research in the Field of Security— in the Service of the Polish Police

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Abstract. *The aim of the study is to familiarise the readers with issues related to the activities of the Polish Platform for Homeland Security (PPHS) in the field of scientific research. They are conducted mainly in the field of state and citizen security. The Polish Platform for Homeland Security (PPHS) was established in 2005 as a joint agreement between the Polish Police, universities, and research institutes. Over the years, the cooperation has expanded to include new agencies and representatives of the judiciary. Thanks to the cooperation between security practitioners and the representatives of academia, modern tools and technologies, as well as legal and organisational solutions aimed at increasing the level of internal security, are developed and supported. The study presents several of the most important research projects of the PPHS from the beginning of its operation to the present time.*

DOI: 10.5604/01.3001.0053.9581

<http://dx.doi.org/10.5604/01.3001.0053.9581>

Keywords: criminology, security, scientific research, Białystok School of Criminology, Polish Platform for Homeland Security

Introduction

As the prominent Polish criminologist B. Hołyst rightly remarks in one of his latest works, security is the most fundamental, common and current problem of mankind. Few issues are of such gravity and generate such wide interest.¹ Security is currently a hotly debated issue both by the ruling elites and ordinary citizens.

The first criminological research on security, in particular as far as organised crime is concerned, was initiated together with the establishment of the Institute of Criminology and Organised Crime² at the Faculty of Law in 1994, but within the framework of the Branch of Warsaw University in Białystok. Abundant research initiatives were undertaken in this Institute, which was later transformed into the Institute of Criminal Law and Criminology.³ The activity of the Institute is now

¹ B. Hołyst, *Bezpieczeństwo. Ogólne problemy badawcze*, Warszawa, 2014, p. 9.

² *More in:* E. Pływaczewski, E.M. Guzik-Makaruk, K. Laskowska, G. Szczygieł, W. Filipkowski, E. Zatyka, *Polskie kierunki badań kryminologicznych nad bezpieczeństwem obywateli*, 'Prokuratura i Prawo', 2010, No. 1–2, p. 176 ff.; E.W. Pływaczewski, *Geneza i stan badań kryminologicznych nad bezpieczeństwem w Polsce*, 'Białostockie Studia Prawnicze', 2011, Vol. 9, p. 229 ff.

³ *More in:* E.W. Pływaczewski, E.M. Guzik-Makaruk, *Polish Platform for Homeland Security and its place in the research on security in Poland*, [in:] *Selected aspects of internal security*, Dworzecki, J. (Ed.), Inglobal Writer Inc., New York, 2015, pp. 219–234.

30 years old and is known today as the Białystok School of Criminology (BSC).⁴ BSC is closely related to the Polish Platform of Homeland Security (PPHS).

An international conference,⁵ which was organised based on the aforementioned research outcomes, was an important stage in discussing strategic ideas for cooperation of the judicial bodies, the services subordinate to the Ministry of the Interior and Administration with research centres. The conference was organised under the auspices of the Commander-in-Chief of the Police in partnership with Poznań University of Technology, the University of Białystok, Adam Mickiewicz University in Poznań, Poznań University of Economics, the AGH University of Science and Technology in Kraków and Gdańsk University of Technology. This 2005 conference resulted in the conclusion of the agreement and formation of the Academic Science Network — Polish Platform for Homeland Security to reinforce cooperation between the scientific, research, developmental and educational sectors in the field of homeland security.

The PPHS was established to create modern technological devices which are supposed to significantly support services and institutions responsible for the state's legal order and security of citizens. It also deals with drafting appropriate legal, criminological and criminal instruments such as its contributions to the legislative works on the Act on the Protected Witness and the bill on operational intelligence activities.⁶ The word 'platform' is understood here as a common ground for project implementation, where the experience and practice go along with modernity. The PPHS conducts an array of scientific research works, carried out by academics and law enforcement authorities associated into a consortium.

The actions undertaken by the PPHS can be divided into three stages. The first stage is related to familiarisation with the needs of the services related to home affairs, the public prosecutor's office, and the system of justice, as modern technologies which can increase the efficiency and efficacy of their work. The next stage concerns the use of a scientific research database to create appropriate prototypes as the outcomes of particular research works. The final stage of the works conducted by the PPHS covers the search for entrepreneurs willing to cooperate and who would be able to produce a given number of products and introduce them into the economic sector.

Its many years of work devoted to creating modern technological devices and its considerable experience in the field of commercialisation of research have made the PPHS community one of the leaders in actions aimed at finding a common foundation for science and business. The significant interest in the aforementioned research outcomes allows for cautious optimism when the prospective introduction of specific products to the Polish and European market is discussed.

⁴ E.W. Pływaczewski, E.M. Guzik-Makaruk, W. Filipkowski, *Teoria i praktyka — inicjatywy i prace badawcze Białostockiej Szkoły Kryminologii*, 'Państwo i Prawo', 2019, Vol. 3, Issue 877, pp. 96–116; E.W. Pływaczewski, E.M. Guzik-Makaruk, W. Filipkowski, *The Białystok School of Criminology (BSC)*, 'The Criminologist', 2019, Vol. 44, Issue 2, pp. 48–49; E.W. Pływaczewski, E.M. Guzik-Makaruk, W. Filipkowski, *Matrix of Excellence in Criminological Research in the Concept of the Białystok School of Criminology*, [in:] *A life in Criminology. Festschrift to Jerzy Sarnecki*, Andersson, R., Wahlgren P., (Eds), Uppsala, 2022, pp. 57–74.

⁵ The conference was held under the banner: *The Use of Modern Scientific Methods to Support Managing the Public Security in the European Union*, Poznań, 9–10 May 2005.

⁶ More: L. Paprzycki, Z. Rau (Eds), *Praktyczne elementy zwalczania przestępczości zorganizowanej i terroryzmu*, Oficyna Wolters Kluwer Business, Warszawa, 2009.

The activity and achievements of the PPHS have often been presented at international forums. PPHS is also involved in a number of other security-related initiatives, including partnering with Threats Observatory for Young People⁷, creating a proprietary Cybersecurity Standard for the Small- and Medium-sized enterprise sector (SMEs) and public institutions, and developing and implementing a proprietary educational program to prevent radicalisation leading to discrimination and hate speech, which is dedicated to primary and secondary schools and two technical committees of the Polish Committee for Standardisation.

PPHS also conducts extensive publishing activities in the field of criminal law, criminology, and security science, including cybersecurity. Organisation and management in the Police also falls within the sphere of primary interest.⁸

The research project 'Legal, organisational and technical solutions in combating organised crime and terrorism, with special emphasis put on the problem of evidence and the institution of the protected witness' (2002–2006)

This project is a perfect example of cooperation between theory and practice. It is one of the biggest research projects in the area of social sciences.⁹ During the implementation of the aforementioned research project, its participants could, to a considerable extent, take advantage of IT technologies. It made it possible to carry out multidimensional analyses of the problems concerning methods of combating organised crime (paying special attention to the phenomenon of Russian-speaking organised criminals in Poland and in the neighbouring countries) and terrorism, putting an emphasis on some aspects of procedural and operational activities.

Thanks to a specially prepared electronic back up device, several thousand volumes of criminal cases against organised criminals were thoroughly analysed in all stages of criminal proceedings, *i.e.*, operational work, pre-trial or judicial proceedings as well as when the imposed punishment was being served (deprivation of liberty in particular). As a consequence, it was possible to compare the research outcomes with the practitioners' opinions, which make it possible to assess the present and proposed solutions in the scope of combating both phenomena.¹⁰ A special emphasis was put on effective exploitation of the institution of the protected witness and the issues concerning implementation of the evidence obtained during operational stage until the criminal proceedings start. It was also possible,

⁷ *Threats Observatory for Young People*, <https://www.obserwatorium.wlkp.pl/en> [accessed: 7/05/2023]. The Observatory is an interdisciplinary body whose members are representatives of institutions from the Wielkopolska region that are involved in work with young people. The essential part of the project is conducting a broad diagnosis of threats and taking appropriate informative, training, and preventive actions.

⁸ *Publications*, <https://ppbw.pl/en/publications/> [accessed: 7/05/2023].

⁹ The research project was commissioned by the Ministry of Scientific Research and Information Technology No. PBZ-MIN-004/T00/2002.

¹⁰ See: J. Szymaniak, R. Kuczek, *Wsparcie informatyczne projektu na przykładzie programu archiwizacji akt oraz programu analizy ankiet*, [in:] *Przestępczość zorganizowana, świadek koronny, terroryzm — w ujęciu praktycznym*, Pływaczewski, E.W. (Ed.), Kantor Wydawniczy Zakamycze, Kraków, 2005, p. 625 ff.

for the first time in history, thanks to specially designed software, to conduct research on corruption in the justice system (courts, prosecution and prison service) and on the role of counsels for the defence in this phenomenon. Not only were particular research outcomes presented but concrete postulates for changes in law and practice in that scope were also suggested.

The significance and usefulness of new technologies in the fight against both organised crime and terrorism (especially cyberterrorism) were also highlighted. In addition, it was indicated that operational work of law enforcement bodies is of key importance in preventing and counteracting these threats. The work of the aforementioned research team resulted not only in the prepared draft of the amendment to the 1997 Act on the Institution of the Protected Witness,¹¹ but also initiated the attempts to implement modern technologies in the work of law enforcement agencies and judicial bodies. It is worth highlighting that when the research project commenced, particular research teams comprised 40 participants, whereas there were 120 participants at the final stage of the research project implementation.

The research project 'Monitoring, identifying, and countering threats to the security of citizens' (2007–2010)

The research project¹² was carried out by the consortium established by the University of Białystok and the Military University of Technology in Warsaw.¹³ The general aim of the project was to provide the national authorities with prototype solutions in the scope of identifying threats to the security of citizens, warning citizens, and managing the state security. The project also provided tools which were to support making decisions in crisis situations, as well as a network monitoring system, the acquisition and processing of the data to warn about the threats and to counteract and compensate for the outcomes of the crisis.

This project was of an interdisciplinary character. It involved 350 participants who were both academics (legal and technological sciences) and practitioners from law enforcement and judicial bodies. A number of legal, criminological, sociological, and technical studies were conducted, which focused on selected aspects of the security of citizens.¹⁴ All the assumed research objectives were achieved during the project implementation.

The fact that, apart from academics, police officers, public prosecutors and judges, *i.e.*, those who deal with these problems on a daily basis, participated in the

¹¹ 22 July 2006 Act amending the Act on the Protected Witness and amending the Act on Protection of Classified Information, Dz. U. 2006, No. 149, item 1078. It needs to be highlighted that the amended Act on the Protected Witness was adopted as a lasting element of the Polish legal order. See: E.W. Pływaczewski, *Świadek koronny jako instrument zwalczania przestępczości zorganizowanej*, 'Prokuratura i Prawo', 2010, No. 7–8, p. 93 ff.

¹² This research project was commissioned by the Ministry of Science and Higher Education (No. PBZ–MNiSW–DBO–01/1/2007).

¹³ The project was managed by Prof. zw. dr hab. Emil W. Pływaczewski, and the subproject, which was carried out by the Military University of Technology, was managed by Prof. Andrzej Najgebauer from the Department of Cybernetics at the Military University of Technology.

¹⁴ See: E.M. Guzik-Makaruk (Ed.), *Poczucie bezpieczeństwa obywateli w Polsce*, Lex a Wolters Kluwer Business, Warszawa, 2011, p. 383.

project was of key importance as the project was intended to guarantee the application of the achieved research outcomes in practice to improve the effectiveness of works of law enforcement bodies.

The work of the research team consisted of a comprehensive analysis of Polish and foreign laws with the purpose of finding effective means to combat threats to the security of citizens. The research concerned preventing and combating the most dangerous modern problems, such as organised crime and terrorism. Special attention was paid to the aspect of their existence in cyberspace, where new technologies, including information technologies, find the broadest application. The technology part of the project was performed by the Military University of Technology, and included a presentation of prototype solutions involving identification of threats to the security of citizens, warning, and managing the security of the country, such as pilot expert installations of decision supporting tools in the area of crisis management, a network system for monitoring, collecting, and processing data to warn about threats and to counter the effects of crisis situations. The project involved the following scientific fields: political science, ecology, economics, law, meteorology, physics, electronics, optoelectronics, chemistry, information science, biology, management, as well as many specific methods and techniques, to include those of operational studies, artificial intelligence, as well as the detection and identification of threats. The completion of the project assumptions should result in a practical implementation of the research results in the field of security of the country and its citizens. These actions brought about the development of new methods and techniques in the above-mentioned fields of science.

The research project INDECT (2009–2014)

The INDECT¹⁵ research project, initiated by the PPHS and prepared by a group of scientists of the AGH University of Science and Technology in Kraków and in cooperation with the Gdańsk University of Technology and Poznań University of Technology, met the requirements to obtain funding from the EU's Seventh Framework Programme in the theme of security. This project won an incredibly strong competition, as just 7 out of 385 submitted projects were qualified to receive funding, including two projects from Poland, namely INDECT and TALOS. The aforementioned projects are the only EU projects managed by Polish research centres, (in the other EU projects, Polish participants were only subcontractors).¹⁶

¹⁵ INDECT — acronym from the name of the project — The Intelligent Information System Supporting Observation, Searching and Detection for Security of Citizens in Urban Environment.

¹⁶ The project was coordinated by Prof. Andrzej Dziech from the AGH Department of Telecommunications. The following institutions were involved in the implementation of the INDECT research project: the AGH University of Science and Technology — Poland (the project coordinator), Apertus — Hungary, Bundeskriminalamt (the Federal Police Office) — Germany, the University of Applied Science Sankt Pölten — Austria, Gdańsk University of Technology — Poland, InnoTec DATA GmbH & Co. — Germany, IP Grenoble (Ensimag) — France, the National Police Headquarters — Poland, APIF Moviquity S.A. — Spain, Products and Systems of Information Technology — PSI AG — Germany, the Police Service of Northern Ireland — the United Kingdom, Poznań University of Technology — Poland, Universidad

The way the project was financed and the extensive range of institutions engaged in its implementation, including a dozen or so foreign units (academic centres and companies from nine European countries) resulted in the transition of the PPHS scientific and research activities to the international level. The aim of this project was to create an intelligent computer system that would ensure a high level of security for urban area citizens.

The main expected results of the INDECT project were: a pilot installation of the monitoring and surveillance system at various points of the city agglomeration and demonstration of the prototype of the system, implementation of a distributed computer system that is capable of acquisition, storage and effective sharing on demand of the data as well as intelligent processing, construction of a family of prototypes of devices used for mobile object tracking, construction of a search engine for fast detection of persons and documents based on watermarking technology and utilising comprehensive research on watermarking technology used for semantic search, construction of agents assigned to continuous and automatic monitoring of public resources such as websites, discussion forums, Usenet groups, file servers, p2p networks as well as individual computer systems, building an Internet-based intelligence gathering system, both active and passive, and demonstrating its efficiency in a measurable way.¹⁷

The participation of the Polish police in the project consisted in consulting and testing the developed solutions. The police had ongoing and free influence on the directions of research work and the optimisation of the developed systems from the point of view of the Polish legal system and the tasks of the Polish police. The solutions created under INDECT can only be used by police units in cases of direct security threats and crimes.

The research project 'Development of a system for detection of threats to the safety of blind and vision impaired persons, particularly taking into account road traffic. Legal-criminological and technological aspects' (2011–2014)

The research project,¹⁸ whose leader was the University of Białystok,¹⁹ was implemented in a consortium with the AGH University of Science and Technology in Kraków, the University of Computer Engineering and Telecommunications in Kielce and the company Future Voice System Ltd.

Carlos III de Madrid — Spain, the Technical University of Sofia — Bulgaria, Bergische Universität Wuppertal — Germany, the University of York — the United Kingdom, VSB-Technical University of Ostrava — the Czech Republic, the Technical University in Kosice — Slovakia, and X-ART ProDivision Handelsges. G.m.b.H. — Austria.

¹⁷ Intelligent Information System Supporting Observation, Searching and Detection for Security of Citizens in Urban Environment, <https://cordis.europa.eu/project/id/218086/pl> [accessed: 7/05/2023]

¹⁸ The research project No. O ROB 0022 01/ID/22/3, Contract No. 0022/R/ID3/2011/01.

¹⁹ This research team of the University of Białystok consisted of: Prof. Ewa M. Guzik-Makaruk as the project manager, Prof. Emil W. Pływaczewski, Prof. Katarzyna Laskowska, Prof. Wojciech Filipkowski, Dr Elżbieta Zatyka, Prof. Ewa Glińska (Białystok University of Technology), and Dr Emilia Jurgielewicz-Delegacz.

Undoubtedly, security is a common good, which is of special importance for all members of the society. According to the data provided by the World Health Organization, there are over 42 million blind and visually impaired people around the world. Central Statistical Office data indicate about 1.8 million people with visual impairment in Poland in 2021.²⁰ The number of the blind in Poland amounts to 100,000, and as many as 500,000 are people who suffer from serious sight disorders, for example, from visual impairment. This category of people is particularly at risk of social exclusion, therefore, they are extremely interested in adjusting the infrastructure and social space to their needs.

Getting around, particularly in urban areas, poses a significant challenge for those with sight disorders. In urban areas, where the traffic is heavy, blind and visually impaired people have problems negotiating traffic and physical barriers, which do not pose such an obstacle for a non-disabled person in their daily life. This type of disability makes a disabled person dependent on the assistance of a third party (a sighted companion), which again makes their life less convenient to a great extent and decreases the probability of adaptation to the existing conditions.

Having considered the threats of social order, B. Hołyst rightly remarks that visual impairment frequently leads to loneliness, isolation and eventually results in social exclusion.²¹

The project was of interdisciplinary character, *i.e.* combining technical and social sciences. The research tasks were fulfilled in three dimensions: information technology, law and criminology. It is a perfect example of science playing its ancillary role. 2,500 respondents participated in this research project. The achieved objectives of the research project, as far as legal aspects are concerned, referred to the analysis of binding domestic and international legislation regarding the safety of blind and visually impaired people. As regards criminological issues, the research aimed to diagnose the target group's feeling of security and establish a knowledge base of obstacles that pose hazards for blind and visually impaired people. Another advantage of the research tasks was the two-dimensional perception on the dilemma of how to ensure the safety of blind and visually impaired pedestrians; hence both the public bodies with the duty of care and visually impaired people were involved in this research project. Moreover, the readiness of the local authorities to implement innovative solutions designed to improve the safety of blind and visually impaired was assessed. The theoretical layer of the research project concluded with two monographs of dogmatic and empirical character.²²

As far as technical devices are concerned, a system to detect hazards (composed of four components) was developed. The system was built and pretested on the

²⁰ *Osoby niepełnosprawne w 2021 r.*, GUS, https://stat.gov.pl/files/gfx/portalinformacyjny/pl/defaultaktualnosci/5487/26/3/1/osoby_niepelnosprawne_w_2021_r.pdf [accessed: 7/05/2023]

²¹ B. Hołyst, *Zagrożenia ładu społecznego*, Warszawa, 2014, p. 362 ff.

²² E.M. Guzik-Makaruk, E.W. Pływaczewski, E. Zatyka (Eds), *Bezpieczeństwo osób niewidomych i słabowidzących ze szczególnym uwzględnieniem ruchu drogowego. Wybrane aspekty prawne i kryminologiczne*, Białystok, 2014, p. 480; K. Laskowska, W. Filipkowski, E. Glińska (Eds), *Bezpieczeństwo osób niewidomych i słabowidzących w ruchu drogowym. Wybrane aspekty praktyczne*, Białystok, 2014, p. 402.

Android mobile platform by means of a talk-back interface, so it is convenient for the target users, *i.e.* the blind and visually impaired. The system includes four applications which:

1. detect hazards by analysing stereoscopic images,
2. detect colours of traffic lights at pedestrian crossings,
3. detect buses and read bus numbers,
4. navigate by means of a GPS system.

The Polish Police took an active part in the project. The Road Traffic Office of the Police Headquarters provided statistical data and made it possible to conduct surveys among traffic police officers. Nearly 2,000 police officers from all over Poland took part in the research by filling out a survey.

The research project ‘State-of-the-art technologies for the penal process and their application — technical, forensic, criminological, and legal aspects’ (2011–2014)

This project,²³ whose leader was the University of Białystok,²⁴ was carried out in a consortium with the Military University of Technology in Warsaw, the AGH University of Science and Technology in Kraków and the company PPWB.

The project aimed at broad technical research on enhancing the security of citizens with the application of legal, forensic and criminological knowledge in selected key issues concerning ensuring security. The research is of an innovative character as it combines both humanistic and technical areas. As a result, complex legal, criminological, and forensic analyses were prepared relating to the implementation of particular modern technologies which are essential for the homeland security of the state along with the prototypes of their implementation.

It is worth highlighting that, due to its scope and the extent, the research was of a pioneering character not only in Poland but also in Europe. It particularly concerned such areas as electronic criminal proceedings, electronic asset recovery, automatic transcription of speech into text, application of data mining in the area of ensuring security, strategic analysis, operational intelligence activities and operational techniques, cyberterrorism, as well as public-private partnership in the field of security.

The project included, *i.a.*, software facilitating the management and circulation of documents in court proceedings in the criminal department of the district court; software of the electronic administration office along with document identification based on QR codes; and software facilitating the planning and scheduling of hearings, handling many cases by many judges, calendars, notifications, and monitoring cases. In addition, the project created a prototype of an electronic asset recovery system and a system for searching for keywords in multimedia files. The outputs of the project are used to analyse information from open sources — the Internet, which proves the complementarity of the research.

²³ The research project No: O ROB 0021 01/ID/21/2.

²⁴ The research team of the University of Białystok: Prof. Emil W. Pływaczewski as the project manager; Prof. Ewa M. Guzik-Makaruk, Prof. Katarzyna Laskowska, Prof. Wojciech Filipkowski and Dr Elżbieta Zatyka.

Selected projects implemented in 2015–2022 with a horizon to 2025

The I-LEAD project²⁵ belongs to a small group of CSA projects (Coordination and Support Actions). These are projects that involve the creation and coordination of a network of practitioners to promote research and innovation. The project, whose implementation was planned for 2017–2022, is managed by the Dutch Police, and the consortium includes 19 partners. The main objective of the project is to discuss among the representatives of the police from European Union countries the possibilities of using new technologies in five thematic areas: Front Line Policing, Cross Border Crime, Cybercrime, Crime & Intelligence and Forensics. Within the project, PPHS, as the Work Package 4 Leader, is responsible for activities dedicated to the development of common European standards for technologies which are relevant from the European police services perspectives and supporting security services in joint public procurement.²⁶

The PPHS participated in an international project concerning the fight against online drug crimes titled 'Law Enforcement Technological Innovation Consolidation for Fight Against Online Drug Crimes (LION DC)', which is led by the Mykolas Romeris University in Vilnius (Lithuania). The project consortium includes 12 partners from such countries as Poland, Lithuania, the Netherlands, Greece, Bulgaria, and Romania. The project is financed under the EU Internal Security Fund Police program and was implemented in 2018–2021. The main objective of the 'LION DC' was to provide agencies and institutions responsible for security with new competences, methodologies, and tools for fighting online drug crimes, by consolidating expert knowledge, creating a sandbox training platform and developing and improving investigative techniques. Moreover, the objective of the project was to develop a model of permanent partnership between agencies dealing with online drug trafficking. The PPHS was responsible for defining the online drug crime phenomenon, identifying the needs, requirements and expectations of the agencies participating in the project to improve online drug trafficking investigations, and analysing the available tools to help fight online drug trafficking.²⁷

The PPHS was also involved in an international project financed by the European Commission titled 'Special projects for advanced research and technology in Europe' (SPARTA), which was implemented in 2019–2022. The consortium leader was the French Alternative Energies and Atomic Energy Commission (CEA). The consortium consisted of 44 partners from 14 member states of the European Union. The consortium members were also research institutions and practitioners, including national CERTs²⁸ from Estonia, Latvia, Lithuania, and Poland. The objective of the project was to prepare a cybersecurity roadmap for the European Union. The results of the project include an analysis of the current cybersecurity solutions and products and a suggestion of new research directions aimed at preparing for the types of threats that may occur in the future. Another objective of the SPARTA project was

²⁵ I-Lead Innovation — acronym of Law Enforcement Agencies Dialogue.

²⁶ www.i-lead.eu [accessed: 7/05/2023].

²⁷ www.lion-dc.eu [accessed: 7/05/2023].

²⁸ CERT — acronym of Computer Emergency Response Team.

to prepare integrated training programs in the area of cybersecurity, intended for both practitioners working in the area of cybersecurity and the society in general, thus raising the level of awareness about cyberthreats.²⁹

The PPHS was a partner of the international FORMOBILE project (From mobile phones to court — A complete FOREnsic investigation chain targeting MOBILE devices), led by the University of Applied Sciences Mittweida (Germany). The project was financed by the European Commission as a part of the Horizon 2020 Program and was implemented in 2019–2022. The main objectives of the FORMOBILE project were to develop solutions that enable acquisition of mobile data that has not been available before, to unblock mobile devices, and to analyse data from, among others, cellular phones, taking into account the needs of law enforcement agencies. Moreover, based on requirements defined by security services, a European standard applicable to mobile phones was developed. As the new standard and new tools were being developed, training for uniformed services were conducted. As a part of the project, the PPHS, was responsible for planning, development, and coordination of all activities of the FORMOBILE project that are associated with communication, dissemination, and utilisation of the results of the project.³⁰

The QROC³¹ project, implemented in 2020–2022, was aimed at identifying needs and exchanging good practices as well as carrying out a foresight procedure. This method of anticipating the future within new technologies could help police operational centres improve the level of public safety. To achieve this, solutions to enable law enforcement operational centres to quickly share and secure cross-border operational data on terrorist threats were introduced within the project. These tasks were accomplished by performing advanced self-assessment, demonstrating innovative technologies available on the market and a number of exercises carried out to increase the efficiency of operating centres. The PPHS was responsible for developing scenarios that will serve as a foundation for exercises for law enforcement agencies to test new technologies and forms of cooperation. The QROC project was an initiative of the ENLETS (European Network of Law Enforcement Technology Services) under the Internal Security Fund — a police cooperation instrument financed by the European Commission.³²

EU-HYBNET (Empowering a Pan-European Network to Counter Hybrid Threats) was officially launched at the beginning of May 2020 and is being implemented until 2025. The project aims to develop a European network to detect, prepare for and counter hybrid threats. This five-year-long project is funded by the European Commission's Horizon 2020 Programme. The EU-HYBNET project consortium consists of 23 organisations representing 16 European countries. The project has four core themes: Future Trends of Hybrid Threats, Cyber and Future Technologies, Resilient Civilians, Local Level and National Administration and Information and Strategic Communication. The project is coordinated by the Laurea University of Applied Sciences (Finland). The European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE), located in Helsinki Finland, is the main content coordinator

²⁹ www.sparta.eu [accessed: 7/05/2023].

³⁰ www.formobile-project.eu [accessed: 7/05/2023].

³¹ QROC — acronym of Quick Response for Operational Centers.

³² www.qroc-project.eu [accessed: 7/05/2023].

for the project. The PPHS will participate in all activities, including two as a leader: Preparation of recommendations for developing standards and norms (for example ISO, CEN) and technologies and procedures related to detecting, countering and combating hybrid threats; and Dissemination of current project's results through communication with interested organisations from around Europe.³³

Conclusions

Due to the limited space in this paper, it is impossible to outline the objectives of almost 40 research projects that were or are currently being implemented by the PPHS. Therefore, only the selected research projects were discussed. All the projects are interdisciplinary and might be characterised by a very broad scope of participation, both in terms of institutions and individuals.

The PPHS constitutes a harmonised viewpoint on all research and development concerning general security and public good. Modern technologies support the activities of the Police units and other security authorities and help in activities preventing all types of threats and breaches of binding law. These undertakings fostering 'advanced, technological support of internal security management, and terrorism and organised crime prevention' harmonise with the assumptions of the Commission of the European Union and implement its framework programme.

The PPHS is a unique initiative not only in Europe but also in the world. Bringing together the representatives of many various public institutions, it creates a perfect foundation for scientific research to increase citizens' security. The research activity of the PPHS has brought many benefits to the Polish Police and has contributed measurably to the effective prosecution of crime in various areas, including in the area of rapidly developing cybercrime.

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Streszczenie. Celem artykułu jest przedstawienie zagadnień związanych z działalnością Polskiej Platformy Bezpieczeństwa Wewnętrznego (PPBW) w zakresie badań naukowych, prowadzonych głównie w obszarze bezpieczeństwa państwa i obywatela. Polska Platforma Bezpieczeństwa Wewnętrznego (PPBW) powstała w 2005 roku jako wspólne porozumienie polskiej Policji, uczelni i instytutów badawczych. Z biegiem lat współpraca poszerzyła się o nowe agencje i przedstawiciele wymiaru sprawiedliwości. Dzięki współpracy praktyków bezpieczeństwa z przedstawicielami środowiska akademickiego są rozwijane i wspierane nowoczesne narzędzia i technologie oraz rozwiązania prawne i organizacyjne mające na celu zwiększenie poziomu bezpieczeństwa wewnętrznego. W artykule przedstawiono kilka najważniejszych projektów badawczych PPBW od początku jej działalności do chwili obecnej.

Resumen. El objetivo del presente estudio es familiarizar a los lectores con las cuestiones relacionadas con las actividades de la Plataforma Polaca para la Seguridad Interior (PPBW) en el ámbito de la investigación científica. Éstas se llevan a cabo principalmente en el ámbito de la seguridad estatal y ciudadana. La Plataforma Polaca de Seguridad Interior (PPBW) fue creada en el año 2005 como un acuerdo común entre la Policía polaca, universidades e institutos de investigación. Con los años, la cooperación se ha ampliado para incluir a nuevos organismos y representantes del poder judicial. Merced a la cooperación entre profesionales de la seguridad y del mundo académico, se desarrollan y apoyan herramientas y tecnologías modernas, así

como soluciones jurídicas y organizativas, para aumentar el nivel de seguridad interior. El trabajo recoge algunos de los proyectos de investigación más importantes del PPBW desde su creación hasta la fecha.

Zusammenfassung. Das Ziel dieses Artikels ist es, die Fragen in Bezug auf die Aktivitäten der Polnischen Plattform für Innere Sicherheit (PPBW) im Bereich der wissenschaftlichen Forschung darzustellen, die hauptsächlich im Bereich der Staats- und Bürgersicherheit durchgeführt werden. Die Polnische Plattform für Innere Sicherheit (PPBW) wurde 2005 als gemeinsame Vereinbarung zwischen der polnischen Polizei, Universitäten und Forschungsinstituten gegründet. Im Laufe der Jahre hat sich die Zusammenarbeit auf neue Behörden und Vertreter der Justiz ausgeweitet. Dank der Zusammenarbeit zwischen Sicherheitsexperten und Vertretern der Hochschulwelt werden moderne Instrumente und Technologien sowie rechtliche und organisatorische Lösungen zur Verbesserung der inneren Sicherheit entwickelt und unterstützt. In dem vorliegenden Artikel werden einige der wichtigsten Forschungsprojekte der PPBW von ihren Anfängen bis heute vorgestellt.

Резюме. Цель настоящей статьи — представить вопросы, связанные с деятельностью Польской платформы внутренней безопасности (ППВБ) в области научных исследований, проводимых преимущественно в сфере безопасности государства и граждан. Польская платформа внутренней безопасности (ППВБ) была создана в 2005 г. в рамках совместного договора между польской полицией, высшими учебными заведениями и научно-исследовательскими институтами. За несколько лет сотрудничество расширилось, и в нем стали участвовать новые ведомства и представители судебной системы. Благодаря сотрудничеству между практиками в области безопасности и представителями научных кругов разрабатываются и обеспечиваются современные инструменты и технологии, а также юридические и организационные разработки, направленные на повышение уровня внутренней безопасности. В данной статье представлены некоторые из наиболее значимых исследовательских проектов ППВБ с момента его создания до сегодняшнего состояния.

