



The Possible Response of Science to the Global Threat



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Abstract

Aim: The aim of the study is to present the innovations in INTERPOL's activities and practices and the need for them.

Methodology: The author analyses and systematises the literature in Hungarian and English, as well as the articles and data published on the INTERPOL website on the occasion of the anniversary.

Findings: The security challenges and the fight against international organised crime require innovation in the work of law enforcement agencies, and the use and application of the results of technological progress.

Value: The study examines possible responses to global challenges from a research and development-innovation perspective, in particular in relation to INTERPOL's activities and possible practices at home.

Keywords: security, research-development-innovation, INTERPOL

The creation and maintenance of complex security is a global challenge that knows no borders and that nations alone cannot address effectively and sustainably. Only prepared, science-based organisations can meet the challenges of the 21st century. INTERPOL, the International Criminal Police Organization, has been playing an important role in international law enforcement for a century. Recognising the challenges of exponential development, INTERPOL has adapted to meet the challenges of crime prevention, detection and investigation by embracing innovation. An analysis of its journey towards innovation reveals that the organisation has become a key player in the fight against transnational

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crime in the modern era. The need for research, development and innovation has also become part of the practice of the domestic police profession, with a history going back decades.

Introduction

INTERPOL, short for International Criminal Police Organization, has been at the forefront of international law enforcement since its creation in 1923. Over the decades, INTERPOL has evolved and adapted to changing global dynamics, emerging threats and technological advances. Today it is a symbol of innovation and international cooperation in the fight against transnational crime. In this paper, I will present, in a non-exhaustive manner, INTERPOL's innovative initiatives and their far-reaching impact on global law enforcement, as well as possible future directions for domestic law enforcement research and innovation.

Innovation in Technology

Global Law Enforcement Communication

One of INTERPOL's most significant technological innovations is the global law enforcement communication system known as I-24/7. Launched in 1999, I-24/7 is a secure and encrypted platform that allows law enforcement agencies from INTERPOL Member States to communicate and share critical information in real time. This platform provides law enforcement officials with access to INTERPOL's extensive criminal databases containing information on criminals, stolen property, missing persons and terrorism-related data ([URL1](#)).

I-24/7 revolutionised the speed and efficiency of law enforcement cooperation in cross-border cases. For example, it allows police officers in one country to request information about a suspect or criminal record in another country almost instantly. This real-time exchange of data has played and continues to play an important role in the search for fugitives and missing persons, and in the prevention of international crime ([URL1](#)).

Expertise in cybercrime

The rise of cybercrime in recent years has posed a major challenge to law enforcement agencies worldwide. Recognising the need to effectively combat

cyber threats, INTERPOL has also invested in building expertise in this area. The organisation has set up a dedicated unit, the Interpol Global Cybercrime Expert Group (IGCEG), which is composed of experts in cybersecurity, digital forensics and related fields ([URL2](#)).

The IGCEG provides technical support and guidance to member countries to investigate cybercrime. In addition, as the INTERPOL Cyber Fusion Centre, it contributes to sharing intelligence on cyber threats and coordinating global responses to cyber incidents ([URL3](#)). INTERPOL's commitment to fighting cybercrime underpins its recognition of the changing nature of criminal activity and the need for cutting-edge technological solutions.

Information Sharing

Criminal Databases

INTERPOL manages a wide range of criminal databases that facilitate international cooperation in law enforcement. These databases contain information on various criminal activities, including drug and human trafficking, terrorism and organised crime. The possibility to access and contribute to these databases has changed the way member countries operate.

For example, INTERPOL's Stolen Motor Vehicles database allows law enforcement agencies to check whether a vehicle has been stolen by simply inserting the information. This has been invaluable in preventing the illegal trafficking of stolen vehicles and recovering stolen property ([URL4](#)). In addition, databases on missing persons and child exploitation have helped reunite families and protect vulnerable people from exploitation ([URL1](#)).

Data Analysis and Predictive Policing

In recent years, INTERPOL has used data analytics and artificial intelligence (AI) to analyse the vast amount of law enforcement data. Through initiatives such as the INTERPOL Innovation Centre, the organisation is developing AI tools to support member countries in detecting and predicting crime and patterns ([URL5](#)). These technologies enable law enforcement agencies to be proactive in preventing and responding to threats.

In addition, INTERPOL's data analysis methods also help to identify emerging trends and the way criminal organisations operate. This information helps member countries to readapt their strategies and allocate resources more efficiently

([URL6](#)). The predictive policing capabilities offered by these innovations will contribute to enhanced public safety and crime reduction at a global level.

Developing Capacity

INTERPOL recognises that its impact goes beyond technology and databases, it also lies in strengthening the capabilities of law enforcement agencies in member countries. To achieve this, INTERPOL offers a range of capacity building programmes and training initiatives.

Specialised Training

INTERPOL runs special training programmes to equip law enforcement officials with the knowledge and skills needed to fight various forms of crime. These programmes cover areas such as counterterrorism, cybercrime, drug trafficking, human smuggling and wildlife crime ([URL7](#)). By providing access to world-class trainings, INTERPOL ensures that member countries' law enforcement agencies are well prepared to deal with complex and evolving threats.

Technical Support

In addition to training, INTERPOL also offers technical support to member countries facing special challenges. This can include sending experts to help with a complex investigation or providing resources to improve a country's forensic capacities ([URL8](#)). By customising its support to the specific needs of each member country, INTERPOL helps to bridge capability gaps and provide a more effective response to transnational crime.

International Cooperation

INTERPOL's strength lies in its ability to facilitate international cooperation between law enforcement agencies. It serves as a neutral and trusted intermediary for member countries, enabling them to cooperate in cases that cross national borders.

Common Operations

INTERPOL often coordinates common operations involving several Member States and targeting specific crimes. For example, Operation Thunderstorm in 2018 was a global initiative to combat wildlife trafficking. It led to the arrest of hundreds of individuals and the seizure of several tonnes of illegal wildlife products ([URL9](#)). Such operations harness the collective resources and expertise of member countries to achieve effective results.

Partnerships

INTERPOL also works with various international organisations, such as the United Nations, the World Customs Organization and regional law enforcement networks. These partnerships provide a more comprehensive and coordinated response to global challenges. For example, INTERPOL works closely with the United Nations Office on Drugs and Crime (UNODC) in the fight against drug trafficking and organised crime ([URL10](#)).

Challenges and Ethical Considerations

Although INTERPOL's innovative approaches have played a significant role in advancing global law enforcement, they also present challenges and ethical considerations. A primary concern is the potential for misuse of technology and information sharing. Protecting the privacy of individuals and preventing unauthorised access to sensitive data is of paramount importance.

In addition, INTERPOL operates in a complex geopolitical environment, where the interests of its member countries do not always coincide. Balancing the promotion of international cooperation with respect for national sovereignty can be a challenge. Ensuring that INTERPOL remains impartial and free from political influence is essential for the credibility and effectiveness of the organisation.

In addition, the rapid evolution of technology presents ongoing challenges in keeping up with evolving cyber threats and ensuring the security of sensitive law enforcement data. Cyber security and data protection must be a top priority to prevent violations and unauthorised access.

Conclusions

INTERPOL's commitment to innovation has made it a leading player in the global fight against international crime. Through technological advances, information sharing, capacity building and international cooperation, INTERPOL has adapted to the ever-changing environment of criminal activity. Its commitment to cutting edge solutions has enabled member countries to combat crime more effectively and protect their citizens more efficiently.

Despite this, INTERPOL faces ongoing challenges, including ethical considerations related to data protection and political influence. To maintain its integrity and effectiveness, INTERPOL must continue to prioritise transparency, accountability and international cooperation.

Innovation in Domestic Practice

In Hungary, scientific activity in the police organisation is basically determined by the relevant internal affairs and police norms, providing an opportunity and an organisational framework for scientific thinking in order to ensure that police activity has an appropriate scientific background and basis. There has been a significant change in police science research since 2014, mainly thanks to proposals for EU Horizon 2020 funding with the participation of police professional organisations.

With the changes in the system of EU and national R&D and innovation funding, it is necessary to rethink the tasks, competences and responsibilities of the organisations responsible for carrying out research, especially professional project organisations, and the status of cooperation, which can be done as follows.

Potential Directions for the Future

The above regulatory documents are effective in promoting social science research, theoretical and human resource development, but further steps are needed in the field of technological research and development, for the following reasons:

- The explosive development of technologies makes it inevitable that a technological solution is tested, the possibilities explored and improved in order to prevent and react in time to any possible misuse by the police;
- This type of research is multi-disciplinary, has a heavy administrative burden, is costly and organisationally demanding, but also requires a rapid organisational response that requires a flexible structure;

- The organisational elements currently in place at the police for tendering and project support were created primarily for equipment procurement, and for them the administrative burden of participating in a type of project where many small procurements and service orders are typical (individual equipment, prototypes, a trip abroad) is disproportionate;
- Some of the potential financial resources require the involvement of market players, the expected outcome is usually a product or solution at a certain level of technological maturity;
- The police have the professional police knowledge and practical experience that can form the basis for the development of such products and solutions, for which the activities of the Police Scientific Council are well suited to gathering and reflecting user needs in this respect ([URL11](#));
- Organisations at the forefront of international security research (research institutes, universities, police forces) recognise the high professional standards of the Hungarian police and count on their participation;
- The University of Public Service, in cooperation with the police, has the organisational conditions and the professional police and civilian staff, well qualified in research methodology, to mediate between research and development and the professional needs of the police.

Different models have been developed for running law enforcement and security techniques research in the EU Member States. These models have been adapted partly to the administrative structure of the state concerned and partly to the specific research and development programmes.

Research Infrastructure

In Hungary, with the policy support of the former Ministry of Innovation and Technology, the National Laboratories Programme ([URL12](#)) has been set up to encourage closer cooperation between national laboratories in a given scientific field, to develop competences that can respond to major global problems at international level and to create opportunities for effective knowledge transfer.

With the effective support of the police and other law enforcement organisations, the University of Public Service could become a Hungarian think-tank for international research on public service.

The tasks of the organisation for the development of security techniques and procedures may include, but are not limited to:

- Research and organisational activities to identify user needs and available technological solutions and development opportunities (workshops, conferences, online resource monitoring, networking, publications).
- Creating and maintaining a network of researchers and professionals at national and international level for research and development.
- Defining specifications, identifying research and development objectives by matching identified user needs and technological opportunities.
- Generating and securing the necessary resources to achieve the identified research or development objective, carrying out ‘market’ background research in line with professional needs, consortium building.
- Managing and coordinating the research and development project, when resources are available.
- Managing the results of the projects, utilisation where they are authorised by the state (owner), and putting the products on the market.

Summary

In summary, INTERPOL’s innovative initiatives have transformed the global law enforcement landscape. As the world continues to evolve, INTERPOL’s role in countering emerging threats and supporting its member countries remains indispensable. By remaining at the forefront of innovation, INTERPOL is poised to meet the challenges of the future and continue its vital mission of promoting global security and justice.

In domestic practice, the laboratory model is used to develop the proactive capabilities of government, public administration, law enforcement and military institutions, adapted to market needs. The laboratory’s activities include the development and even market introduction of new technologies for public security and disaster management.

In order to create innovative and secure societies and increase the subjective sense of security of the population, it is important to strengthen further domestic and international cooperation in the field of scientific research and development. *‘Nowadays, when the Police trust index is outstandingly good and citizens are showing increasing interest in the activities and results of our organisation, it is important to carry out and present police work supported by scientific results. Good professional practice cannot develop without the knowledge gained through scientific research.’* (Németh, 2016).

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Online links in the article

URL1: *Interpol Databases*. <https://www.interpol.int/How-we-work/Databases>

URL2: *Public-private partnerships*. <https://www.interpol.int/Crimes/Cybercrime/Public-private-partnerships>

URL3: *Cybercrime threat response*. <https://www.interpol.int/Crimes/Cybercrime/Cybercrime-threat-response>

URL4: *Fighting vehicle crime*. <https://www.interpol.int/Crimes/Vehicle-crime/Fighting-vehicle-crime>

URL5: *INTERPOL Innovation Centre*. <https://www.interpol.int/en/How-we-work/Innovation/INTERPOL-Innovation-Centre>

URL6: *Criminal intelligence analysis*. <https://www.interpol.int/en/How-we-work/Criminal-intelligence-analysis2>

URL7: *Capacity building*. <https://www.interpol.int/en/How-we-work/Capacity-building>

URL8: *Interpol Response Teams*. <https://www.interpol.int/en/How-we-work/INTERPOL-response-teams>

URL9: *Wildlife Crime*. <https://www.interpol.int/en/Crimes/Environmental-crime/Wildlife-crime>

URL10: *Cooperation with United Nations entities*. <https://www.interpol.int/en/Our-partners/International-organization-partners/INTERPOL-and-the-United-Nations/Cooperation-with-United-Nations-entities>

URL11: *Police Studies*. <http://www.bm-tt.hu>

URL12: *Biztonsági Technológiák Nemzeti Laboratórium az NKE-n*. <https://www.uni-nke.hu/hirek/2021/02/03/biztonsagi-technologiak-nemzeti-laboratorium-az-nke-n>

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