OVERVIEW OF RECENT POLICING-RELATED PROJECTS IN GREECE

Dimitrios Galatoulas,
Center for Security Studies (KEMEA)

GENERAL INFORMATION

The Center for Security Studies (KEMEA) has been established as the Hellenic Ministry of Public Order and Citizen Protection's think tank on security policies. It is a scientific, consulting and research agency, whose purpose is to conduct theoretical and applied research on security policies, particularly at strategic level.

- In 2011, the centre was appointed as the 'national contact point' for the protection of European critical infrastructures (ECIs).
- The centre is authorised to provide professional certification through examinations to private security personnel.
- It has represented the Hellenic government at the European Research and Innovation Forum (ESRIF) of the European Commission (EC).
- It is a member of the Board of Directors of the European Organisation for Security (EOS).
- Currently it is successfully participating in more than 30 research projects funded by the EC and the European Space Agency (ESA).

PROJECT EXAMPLES

The four most sustainable KEMEA's projects with major national and EU security interest are:

1. ISEC PROJECTS

The centre is coordinating three projects funded under the 'Prevention of and fight against crime' (ISEC) programme towards promoting and enhancing the capabilities of the forensic science division of the Hellenic police. Primarily this will be achieved through the acquisition of cutting-edge technological equipment for:

- responding, investigating and analysing CBRN incidents;
- analysing, detailed record-keeping and identifying culprits through DNA;
- investigating, analysing and maintaining a consolidated database for ballistic data.

The equipment acquisition will be supplemented by the establishment of communication channels, persistent cooperation and synergies with all respective European agencies in order to promote and facilitate mutual interexchange of information and best practices on both technological and methodological advancements in the field of forensic science. All three projects entail the study of associated EU

and national legislation in addition to the study of well-established practices, methodologies and technologies in order to draw up both the operational requirements and the specifications for the envisioned equipment listed below.

- ISEC-PRUM (Further strengthening the operational capacity of the Hellenic police to implement the PRUM decision)
- ISEC-CBRN (Advancing the CBRN forensic capacity of the CSI division of Hellenic police)
- ISEC-Ballistic (Expanding the ballistic laboratory data of firearms capability of the CSI division of Hellenic police).

Dissemination actions are foreseen within the scope of each project. Highly focused workshops will be organised, featuring well-acknowledged forensic, political and judicial scientists, experts and agents where best practices and accredited methodologies will be elaborated upon. Moreover, a series of conferences are scheduled to be organised and held in Athens, Greece, in the first semester of 2014.

2. ADVANCED COORDINATION CENTRE OF INFORMATION TECHNOLOGIES & APPLICATIONS FOR BORDER SURVEILLANCE (ACRITAS)

The Acritas project aspires to develop an integrated and common border management system, applied to land and sea border control. It is expected to facilitate rapid deployment to harsh and isolated environments, providing multifunctional surveillance capabilities, intelligent data products and innovative services to regional and national authorities. Acritas could operate as a stand-alone fully functional regional command and control (RCC) centre and/or in cooperation with the National Coordination Centre (NCC).

The proposed solution is designed to incorporate functionalities and operational features of a regional mobile command and control centre, providing common situational picture (CSP) and incident management applications to multiple agencies. Another unique feature is the ability to operate both on land and maritime missions, building upon the integration of on-demand sensors (electro-optics, radars, CBRN, acoustic, etc.) operated in real time. The system will be fully modular combining the advantages of mobility (C & C Centre, Mini-UAVs) and transportability for high operational value areas deployment. This is in contrast to the conventional border guard concept with fixed facilities installed along the entire length of the border, requiring huge infrastructure expenses and a large number of operators.

The overall approach is intended to:

- propose and implement a solution adaptable to local geographical requirements regarding border length and complex topography;
- provide a mobile command and control solution equipped with advanced telecoms;
- collect and process data from existing heterogeneous data sources (radars, electro-optical, CBRN sensors, etc.) mounted on UAVs and ground stations and operated by multiple federal agencies;
- integrate data from existing land and maritime surveillance systems and earth observing products by using state-of-the-art fusion techniques and developing innovative algorithms;
- provide an advanced solution for common situational picture and incident management allowing for the maximisation of the operational capabilities of units deployed in the remotest areas of Greece;
- provide field tests of the derived products in both land and maritime scenarios;
- actively involve end-users in all stages of the project.

3. SAFE AND REVOCABLE BIOMETRIC ID CARDS FOR USAGE IN AMBIENT INTELLIGENCE ENVIRONMENTS (BIO-IDENTITY)

The Bio-identity (Biotaftotita) project's main objective is the secure management of identities in a wide spectrum of network infrastructures

and information systems towards establishing required levels of confidence exploiting biometric identification technologies. More specifically, Bio-identity aims at exploring, identifying and evaluating discreet and non-invasive biometric technologies able to support individuals' identity validation and access control in restricted infrastructures.

Ease of use was a primary design concern as well as using, as much as possible, discreet and soundless sensors. The main idea is that an unobtrusive and user-friendly authentication process will facilitate effective and uninterrupted physical access to infrastructures along to secure and efficient management on users' digital identities. The expected results are closely related to reducing fraud cases and more specifically identity theft and impersonation.

The main objectives of the project are:

- designing a comprehensive system which promotes the security of a wide range of information systems;
- developing the prototype system through the exploitation of modern technologies and tools to increase the level security in controlled environments and buildings;
- the introduction to electronic environments of innovative biometric technologies in combination to encoding/encryption methods of users' personal data.

The proposed system can be regarded as a point of reference for improving existing biometric security systems and promoting the overall level of security in industrial or business environments by ameliorating the systems' precision, reducing failure rates and increasing fraud resilience. Within the scope of the project, a new prototype system for a 'non-interfering' fully automated individual identification and authentication has been developed and implemented. Furthermore, various possibilities regarding encoding and 'biometric identity' revocability have been identified and analysed, reclaiming any existing possibility and newly introduced cutting-edge technologies.

The centre is responsible for developing the system specifications, making elicit and analysing end-users requirements and refining overall solutions' standards. It is also participating actively in disseminating the project's results and is leading the activities for organising the demonstration and evaluation activities both from security experts and high-ranking end-users.

4. GREEK CYBERCRIME CENTER

The Center for Security Studies, in cooperation with the Foundation for Research and Technology (FORTH), Aristotle University of Thessaloniki (AUTH) and the Greek Self-Regulatory Body for the Content of the Internet (Safenet), under the Prevention of and Fight against Crime (ISEC) call of the European programme's Directorate-General for Home Affairs, have created the Greek Center for Cybercrime (GCC). It is part of an emerging coordinated European effort which has the capacity to significantly improve education and research in the newly growing area of cybercrime and complements transnational projects such as 2CENTRE (The Cybercrime Centres of Excellence Network), and B-CCENTRE. It was established in 2013 as a centre of excellence to promote cybercrime investigation training, research and education, replenishing the void of a national cybercrime centre.

GCC's objectives are to:

- become the Greek knowledge centre in the area of cybercrime;
- mobilise the Greek constituency in the area of cybercrime training, research and education;
- provide high quality short training courses in the area of cybercrime;
- provide interdisciplinary university courses in the area of cybercrime;
- advance research in focused areas of cybercrime such as botnets and cyber-attacks;
- closely collaborate with European cybercrime centres and initiatives.

The Center for Security Studies is responsible for organising and delivering high quality short

training courses to law enforcement personnel, judicial authorities, legal practitioners, public officials, civil society associations, NGOs and professional organisations. On cybercrime research aspect, GCC focuses on cybercrime legal issues, botnet detection and reporting tools, disruptive monitoring approaches and intrusion detection systems (IDS). The Center for Security Studies leads the research efforts on IDS and focuses on threat-generated risks and induced behaviours of unknown dynamic composition towards real-time threat prediction, identification, detection and mitigation using statistical sequential analysis with semantic monitoring and reasoning components.