PSCE Conference, Athens, 23-24 November 2016

Public Safety Communication Europe (PSCE) Forum held its 15th conference on **23-24 November 2016** in Athens. The conference was preceded on the 22nd of November by a Joint Co-Workshop by the Impress and COnCORDE projects.

More than 60 delegates from more than 30 organisations attended across the 3 days to discuss the future of public safety communications.

The management of disaster risks and crises of different kinds (natural hazards, migration crisis, terrorist attacks) is ruled by a number of international, EU and national policies covering various sectors (e.g. civil protection, security, health) and operational features such as preparedness, prevention, detection, surveillance, response and recovery. The highly fragmented character of information often leads to a poor awareness with regards to policy requirements from the part of research and industry communities as well as a poor transfer of a technical solution to policy and stakeholders communities.

Against this background, the PSCE conference provided updates on a platform enabling better information exchanges with regular upgrades for all possibly interested organisations and effective interactions among projects and between different communities.

The key conference themes were:

- Natural Disasters: how to prepare for cascading effects?
- PPDR Broadband worldwide
- How can telecommunications improve security in transport?
- Emergency management through terrorist attacks
- How to make the surveillance of our borders more effective?
- Lessons learned from the migration crisis: a practitioner's perspective

The event featured a diverse programme composed of interesting debates, roundtable discussions, and networking possibilities.

Posters and Booths

PSCE invited project posters while other promotional materials were provided by the EU-funded projects COnCORDE, Flysec and TeamNet. COnCORDE further provided a demo on a virtual training tool. In addition, SwissPhone and Huawei organised their booths informing participants of their services in public safety communications.

Formalities and Opening

The conference began on the 23rd November with the general assembly meeting. This is where PSCE reports the activity of the organisation to its members and seeks approval on a number of operating issues such as previous minutes, actions and budgets. A joint presentation was delivered by PSCE President Andrea Nowak and Marie-Christine Bonnamour, PSCE Secretary General, on recent political developments as well as activities. Moreover, the minutes of the previous general assembly were approved. Ms. Nowak delivered a presentation on the activity of the PSCE. She mentioned that PSCE will continue to work and contribute to strengthen the voice of end-users/practitioners. In addition, PSCE is taking part in the Community of Users animated by the European Commission by DG Home and follows the development of 5G by DG Connect.

The budget for 2017, presented by PSCE Vice-President Manfred Blaha was approved.

Following the General Assembly Meeting, Ms. Nowak formally opened the conference welcoming the delegates. Georgios Kioumourtzis (KEMEA) then kicked the meeting off with a keynote speech about the importance of public safety, terrorist attacks and the migration crisis.
Mr. Bernhard Steiger (Huawei) presented the importance of digital transformation that can generate safer smart cities. He underlined the importance of Converged Infrastructure in enabling and enhancing

Cross Agency Collaboration. Central to his presentation was the concept of Cross Agency Data Sharing. Mr. Steiger demonstrated some examples of Safe Smart Cities emphasising the difference in parameters that have to be taken into account in every project: the culture, the legislation and the technology.

Focus 1: Natural Disasters: How to prepare for cascading effects

The first session on natural disasters was composed of presentations on 'Human Behaviour and cascading effects-results of a vignette study (FP7-Project SNOWBALL)', 'Self-reliant paging in South Tyrol' as well as 'Action-experience-knowledge, a non-stop algorithm'. **Malte Schönefeld** informed the participants about the SNOWBALL project and the importance of human behaviour in case of an approaching disaster. Calling behaviour can cause an overload or even the breakdown of communication infrastructures, while the change of spatial distribution of people may lead to the congestion of transport infrastructures. Adequate crisis communication was presented to be the one of the most important factors in preventing cascading effects due to population behaviour.

Markus Rauch (Ministry of Interior of South Tyrol) underlined that the province of South Tyrol has prepared itself to a potential disaster by using an encrypted alerting solution which includes a highly resilient alerting network for volunteer and professional intervention forces. It features several fall-back modes. Even if the entire backhaul and a number of base stations are out of service, the entire region can be alerted in 10 seconds. In case of power blackouts, generators provide emergency power for at least two weeks, allowing the network to be operational when other communication channels are out of service. Moreover, there are alerting devices for the intervention forces that are easy to wear, very robust and highly sensitive for good indoor-coverage, offering battery autonomy of up to 40 continuous operation days with a single AA battery. If deemed necessary, a backchannel for feedback options could be added in the future.

Andreas Andrianopoulos (Hellenic Rescue Team) presented the volunteer organization that has been providing search and rescue services in Greece for more than 35 years. The organisation has developed

an automated procedure to coordinate the experienced personnel and means of communication. H.R.T has learned from the mistakes and delays created by poor coordination. In order to avoid that, H.R.T. currently provides its staff with a detailed operational plan for the critical first moments, under the name ''Megas Alexandros''. This plan not only notifies each volunteer for their role at the right time but also ensures the non-stop flow of information through an undisruptive analogue and digital communications network, free of public electricity network. This analogue network comprises of two channels all around mainland and four channels between the biggest cities Athens, Thessaloniki, Patras, Volos, Larisa, Lamia, Kalamata and Ionian islands..

A Q&A session was followed by a buffet lunch at the hotel's restaurant.

Forum 2: PPDR Broadband worldwide

The afternoon session proceeded with the PPDR Broadband worldwide which composed of presentations on 'BroadMap: the story so far…', 'FirstNet-Roadmap to the US First Responder's Broadband solution' as well as 'PSCE activities in standardization'.

David Lund (PSCE) informed the participants about the development of the BroadMap project which will take the first steps towards future procurement of 'European broadband applications and interoperable radio communication systems for public safety and security' to improve PPDR's service to Europe's citizens and enhance interoperability across borders. The primary goal of this project is to collect, assess and validate the PPDR (Public Protection and Disaster Relief) organizations' wireless broadband communication requirements with the aim to establish a core set of specifications:

- to fulfil the requirements to define transition roadmaps for research and standardization for future evolution of European interoperable radio communication solutions, within legal procurement constraints;

- To prepare the ground for a new eco-system to catalyse new applications, services and processes making use of broadband capabilities for Public Safety and Security;
- To establish a core set of specifications, and roadmap for procurement, to achieve future evolution of EU broadband applications and interoperable radio communication solutions.

More information available at: http://www.broadmap.eu/

T.J. Kennedy (FirstNet) presented FirstNet to the participants. He mentioned that FirstNet is the agency responsible for providing emergency responders in the United States with high speed wireless broadband nationwide. FirstNet focused on consulting with Police Officers, Firefighters, and Emergency Medical Services (EMS) personnel in the fifty states, five territories and the District of Columbia to ensure that the resulting network would meet their critical mission. This resulted in a nationwide request for proposal to meet the 16 objectives for wireless broadband for public safety across the United States. He provided insight on the important steps taken to ensure a successful network deployment that meets the objectives of public safety while creating a sustainable business model for the next 25 years.

More information is available at: http://www.firstnet.gov/

Manfred Blaha (PSCE) explained the inputs of BroadMap in the 3GPP standardisation activities. He referred to the 3GPP which provides interoperable global mobile technology. He emphasised that ''Mission Critical'' standardisation is already active and needs continuous tracking and contributions. He added that PSCE has been included in the three new Market Representation Partners in 3GPP. In this way PSCE will be given the opportunity to offer market advice to 3GPP. However PSCE does not have the authority to define, publish and set standards within the 3GPP scope. With regards to BroadMap, Mr. Blaha concluded that currently the project is underway to expand to 'BroadWay' which is an EU interoperable Broadband for PPDR. The aim is to evolve into BroadNet after 2025 and go live.

The presentations were followed by a roundtable discussion with questions and a short coffee break.

Focus 3: How can telecommunications improve security in transport?

The third session was on the 'Transport of dangerous goods', 'How OnStar and vehicle connectivity shape the future of transportation' as well as the 'Spartacus navigation and communication technologies in crisis management'.

Harold Linke (HITEC) presented the challenges users from the medical sectors are faced with when dealing with dangerous goods. He informed the participants that the number of dangerous goods transported increases every year, hence does the potential for incidents, ranging from major traffic accidents to theft and loss. The effects of these incidents can quickly become a matter for public concern. There is a growing need for public safety services to be aware of these dangerous goods and to know how to handle them correctly in the event of a potential or actual incident. He provided several user examples how users solved or plan to solve these issues using a newly established service called DG-TRAC.

Gerrit Riemer (General Motors) presented the current status of the technology and gave a perspective into the future by a global vehicle manufacturer. Partial and fully automated driving can be developed as a step-by-step approach of the current driver assistance systems. At the same time, there could also be a disruptive approach which could lead directly to highly automated systems. He emphasised that in the framework of co-operative mobility, first steps have been taken to introduce Car-2-X technologies and to establish the corresponding infrastructure. He provided some examples on the future of the automotive industry.

Clemente Fuggini (D'Appolonia) presented the SPARTACUS project "Satellite Based Asset Tracking for Supporting Emergency Management in Crisis Operations" was launched three years ago and concludes in October 2016, having achieved the objective of creating an integrated platform to cope with crisis management in the aftermath of an event. Specifically, the project, co-funded by the European Commission under the FP7 Security Work Programme, has developed modular solutions and services (devices, smartphone apps, web applications) to support and ensure safety of responders. He informed the participants that SPARTACUS enhances the use of satellite and communication technologies with the aim of becoming a de-facto standard in case of large-scale disasters/crisis.

More information available at: www.spartacus-project.eu

The session ended with a Q&A session.

Focus 4: Emergency management during terrorist attacks

The fourth and last session focused on emergency management during terrorist attacks. The presentation delivered were on the 'Lessons of Disaster' and 'Brussels 22-03-2016'.

Kenneth Hines (ConCORDE) presented the lessons learned from disasters so that practitioners can avoid them in the future. He provided vivid examples of obstacles and provided advice. The topics he addressed were Safety issues, Responder safety, Patient safety, Hazards and pitfalls, Knowing your team Casualty management, Documentation issues and Interaction with hospitals. He highlighted that practitioners should always be aware of the surroundings for tactical purposes, first take care of themselves, send the most injured to nearby hospitals while sending the less injured to far-away hospitals.

Danny Smet (Belgian Police) demonstrated the difficulties that the Belgian police faced during the terrorist attacks in Brussels on 22-03-2016 at the Zaventem airport and the metro Station Maalbeek. Due to the proximity of the attacks (only 8 km) the communication networks were overcharged. This created issues in the coordination of the police forces. Mr Smet mentioned that currently the communications network availability for the police has increased as a measure of public safety.

The afternoon session ended with a Networking dinner at the Roof Garden of the hotel. The participants had the chance to socialise and view the Acropolis from the terrace.

Enhancing cybersecurity infrastructure

The morning session of the second day of the Conference opened with the presentation of Ms Rossella Mattioli (ENISA). Ms Mattioli referred to the cybersecurity infrastructure in the EU as well as ways to strengthen it. She provided examples of cybersecurity for intelligent public transport, for smart cars and smart airports. ENISA promotes the collaboration on cyber security throughout Europe. Moreover it is necessary to integrate security in business processes. Ms. Mattioli highlighted that cyber security in transport requires a global effort. Lastly, she highlighted the importance of the newly adopted Directive on Network and Information security (NIS).

Focus 5: How to make the surveillance of our borders more effective?

The morning session continued with presentations on 'border surveillance' and 'migration management'.

Panayiotis Mertis (Hellenic Police) spoke about the borders of the future. He mentioned the Smart Borders Pilot projects results which were carried out in Greece. In Kipoi Evrou there were checks using hand-held device. This method is favourable when there are large queues and captures the iris pattern. Mr. Mertis explained the pilot used in the Port of Piraeus where the police conducted on-board checks using mobile suit-case. This method includes giving four fingerprints and a live photo. Checking the photo was very reliable while travellers were reluctant of giving their fingerprints. Mr. Mertis mentioned that the abolition of stamping is the most ground breaking feature in Smart Borders. He concluded that National Facilitation Programs need to further harmonized and promoted.

Nicolas Phan (Thales France) presented the current and future challenges of border control. He identified as challenges the increasing number of travellers and the migration crisis which has created an impact on border control. Other issues raised were the security implications caused by the terrorist attacks, national budget restrictions as well as biometrics on smartphones. He underlined that the

customer challenge is the acquisition & transmission of Schengen Visa applicants' data from 30 countries while providing a "trusted" solution (quality/security) to be operate by third parties. Thales has created more than 350 Biometric enrolment stations (Hardware & Software). It has also secured data transfer to Ministry central site through internet.

Dimitris Kanakidis (EXUS) presented the RANGER project which can be used for sea border surveillance. He mentioned that RANGER combines novel and ground-breaking Radar technologies with innovative supporting technological solutions for early warning. It delivers a surveillance platform that will offer detection, recognition, and identification as well as tracking of suspicious vessels. In addition the cost of ownership is lower compared to the one of the existing radar systems.

Andreas Kriechbaum-Zabini (Austrian Institute of Technology) provided concepts for Automated Border control as well as Mobile Solutions. He presented the FastPass Air Border Concept which includes a new Biometric sensor (Face recognition on the move). He introduced the H2020 funded project BODEGA, which gathers both social sciences and technology experts. BODEGA can improve the border control since it offers a comprehensive view of the process. Mr. Kriechbaum- Zabini further mentioned that the Austrian Institute of Technology has made proposed recommendations on the document verifications and identity verification. On data protection Mr. Kriechbaum-Zabini argued that passengers are not worried about current passports. However passengers are very concerned about the storage and utilisation of data in the future biometric passports.

Pantelis Michalis (KEMEA) presented the EWISA project. He mentioned that the EWISA concept is based on data fusion technologies from heterogeneous sensors, including video analytics with a scope to generate enhanced Intelligent Analysis Reports. EWISA aims to promote further cooperation between (the participating and other) public authorities in National and EU Level (FRONTEX) in charge of surveillance. He mentioned that the surveillance technologies are going to be tested in four diverse geographical areas of EU external land borders in a real operational environment in Greece, Finland, Spain and Romania.

A roundtable session followed with Q&A. The Speakers had the chance to discuss about the future of border security, data protection and the approximation of the projects with the EUROSUR.

Focus 6: Lessons learned from the migration crisis: a practitioner's perspective

The last session of the conference included presentation on the migration crisis, the challenges as well as recommendations.

Triantafyllos Kararantos (KEMEA) presented the security implications of the migration-refugee crisis. He mentioned that after the migration crisis in 2015, migration has become a top issue of the security agenda. He emphasised that migration remains a threat to internal and national security. Lastly he commented on the relation between migration flows and international terrorism. Dr. Karatrantos mentioned that Europe needs to prepare itself for dealing with sustained flows of refugees and migrants in the long term. It is necessary to strengthen co-operation and build international coalitions since migration is a global phenomenon. He concluded the migration challenge requires a "smart" comprehensive approach that reconciles state security with human security.

The last presentation was delivered by **Georg Neubauer** (Austrian Institute of Technology) on the relevance of information for managing the flow of refugee. Mr. Neubauer presented EPISECC. Throughout his presentation he referred to the ongoing flow of refugees as one of the main challenges for both the member states as well as the European Union. He mentioned that Governments as well as NGOs managing the refugee flow suffered from lack of information exchange during the migration and refugee crisis. Mr. Neubauer added that one of EPISECC's results is to develop a pan-European inventory of past critical events/disasters and their consequences focusing on the performance of processes, data exchange and organisational boundaries. Austria and Germany have expressed the need for improved information exchange between stakeholders in order to tackle the migration challenge. The further demanded an enhanced operational picture related to short-(days), middle-(weeks) and long term (weeks to months) evolution of refugee flow development.

The closing speech was delivered by Ms. Andrea Nowak. She thanked the participants and welcomed them to the next PSCE Conference which will be held in Munich on 3-5 May 2017.

Sponsors

The PSCE event was sponsored by Huawei, Airbus Defence and Space, Swissphone and Motorola Solutions.

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