

Public Safety Communication Europe (PSCE) Forum held its 14th conference on **18-19 May 2016** in Brussels. The conference was preceded on the 17th of May by a Workshop on Ethical, Legal, Social Issues in Networked Information Exchange for PPDR.

More than 50 delegates attended across the 3 days, representing public safety stakeholders consisting of public safety communication end users, ministries, network operators, technology developers and research organisations. Participants from more than 30 organisations travelled from 16 European countries to debate the future of public safety communications.



The management of disaster risks and crises of different kinds (unintentional or intentional man-made disasters, natural hazards) 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. A range of research and technological developments, as well as capacity-building and training projects, are striving to support the implementation of these policies. However, the complexity of the policy framework and the wide variety of research, capacity-building and training initiatives often leads to a lack of awareness about policies and/or project outputs by the wide range of "users". The high level of fragmentation of information often leads to a poor awareness of policy requirements by research and industry communities and a poor transfer of research results to policy and stakeholders communities.

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

The key conference themes were:

- Future communication networks
- Pan European Information Space
- Handling emergency
- How Copernicus and Galileo services support crisis management?

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

Posters

Following a tradition started at the conference in Oxford (2015), PSCE invited project posters to be displayed during the two-day conference. Posters and other promotional materials were provided by the EU funded projects CONCORDE, EPISECC and REDIRNET.



ISITEP Event

The conference also hosted the “Inter System Interoperability for Tetra-Tetrapol Networks” (ISITEP) project event.

Whatever the situation, interconnecting forces beyond national borders

A European network, allowing emergency services and first responders to share communications, processes and legal framework, would greatly improve the ability to respond to natural disasters and security threats. Within this context expressing the need of improved communication interoperability, optimized resources and established communication procedures, the project is pursuing the following objectives:



- the definition of a European cloud network solution integrating all types of European national PPDR networks;
- the establishment of new mission Oriented Procedures, functional models and a legal agreement model;
- the realization of enhanced terminals with a novel terminal architecture based on smartphones/tablets with PPDR applications;
- new supporting tools to assess business sustainability, technology needs and improve training.

More information about this project is available here: <http://isitep.eu/>



Ethical, Legal and Societal Issues (ELSI) Workshop

Mobile, Networked, Collaborative PPDR: How to Make IT Good?

It is increasingly recognised that ICT systems used for PPDR, apart from technical challenges, face ethical, legal and social issues (ELSI). The latter include not only opportunities for new, more inclusive partnerships, including private and civil society actors and more coordinated disaster risk governance between different types of first responder organisations, but also challenges to privacy, liability, accountability, social practices of sharing and controlling information, trusting people, organisations and technologies, dealing with issues around the relevance and quality of information, information overload, the immediacy of transfer (e.g. of distressing images), digital divides and more.

These issues are - paradoxically - often either regarded as constraints for innovation or as subject to exceptions. For example, the need to ensure trustworthy information can be seen both as limiting how far technical potential can be exploited for networked PPDR and as not applicable to PPDR, because time-critical needs for information can override a need for accuracy and reliability. Similarly, data protection issues are often seen as either a limiting constraint for innovation in PPDR or as subject to exceptions. Awareness that ELSI are an inescapable, integral aspect of all technology design and use is growing, but there is a lack of approaches that translate this awareness into proactive, creative, and uncompromisingly ELSI-sensitive social, technical and socio-technical innovation. This limits the value and usefulness of novel technologies, ways of working, regulatory reforms and policies. In practice, ELSI present multi-faceted challenges and opportunities that are difficult but also highly important and rewarding to address.

The conference was preceded by a workshop the aim of which was to develop resources that support the PSCE community in defining proactive responses to ethical, legal and social issues (ELSI) arising in networked, collaborative PPDR, focusing on socio-technical innovation around information and communication technologies. One of such resources are the 'ELSI Guidelines'.



Please see the short paper [‘ELSI Guidelines for Networked Collaboration and Information Exchange in PPDR and Risk Governance’](#) to be presented at [ISCRAM 2016](#) for further information.

Formalities and Opening

The conference began on the 18th May with the general assembly meeting. This is where PSCE reports activity to its members and seeks approval on a number of operating issues such as previous minutes, actions and budgets. Chaired by President David Lund, the minutes of the previous general assembly were approved. The Secretary General, Marie-Christine Bonnamour, presented the activity of PSCE since the last meeting. Andrea Nowak, Vice President and Treasurer, informed about the status of income and expenditure, which was approved.

Following the General Assembly Meeting, PSCE President David Lund formally opened the conference welcoming the delegates. Graham Willmot (European Commission) then kicked-off the meeting with his keynote speech about EU Security research in support of EU policy.



Future communication networks

The first session on future communication networks was composed of presentations on ‘Global solution for interoperability between PPDR communication systems’ as well as on ‘Mapping interoperable EU PPDR broadband’. Participants learned about the new BROADMAP project which will take the first steps towards future procurement of ‘interoperable next generation of broadband 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 and validate the PPDR (Public Protection and Disaster Relief) organisations’ existing requirements with the aim 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 is available at: <http://www.broadmap.eu/>

Joined session of EPISECC, REDIRENET, SECTOR and SECINCORE projects

Four current EU-funded projects active in emergency management – EPISECC, REDIRNET, SECTOR and SECINCORE – hosted a joint session at the PSCE Conference. Under the title “Dynamic Information Sharing”, the session focused on topics related to information sharing, language barriers, and standardisation.

EPISECC project coordinator Georg Neubauer (AIT) presented the Inventory that the EPISECC project has developed. EPISECC focuses on developing a concept of a common information space to assist first responders and other actors involved in emergency management. The EPISECC Inventory has been created based on a questionnaire for crisis managers. The Questionnaire enquires about the processes, measures, standards, data resources, tools, cooperation and interoperability that have been used in tackling previous disasters. All the received information is included in the EPISECC Inventory and will form the basis of the common information space.

Jens Pottebaum (SECINCORE) then drew attention to the various language barriers that can be encountered in emergency management. The goal here is to create a common, standardised European taxonomy that would facilitate cooperation between organisations and efficient exploitation of information. At the moment there is great fragmentation and lack of common categorisation of data sets, processes, and information systems. This negatively affects interoperability and hampers the work of disaster managers.

Finally, Aurel Machalek provided insights on the possibilities for standardisation of emergency communications. The European Telecommunications Standards Institute (ETSI) is responsible for developing and adopting standards in emergency communications. ETSI provides the tools required to address new technologies in any phase of maturity – anything from concept to product standards are under its competence. Implementing some standards in emergency communications would greatly alleviate the problems currently associated with interoperability. To conclude the presentation, Georg Neubauer briefly introduced the CEN Workshop Agreement which should pave the way for the adoption of some standards for emergency communications.

The “Dynamic Information Sharing” session culminated with a roundtable discussion, including representatives from all four projects and chaired by Harold Linke (PSCE).



Handling emergencies

Two other EU-funded projects – CONCORDE and EMYNOS – presented their respective latest developments under the session on handling emergencies.

CONCORDE was represented at the PSCE Conference by project coordinator Toni Staykova (Cambridge University Hospitals). The CONCORDE project focuses on medical emergencies and aims to improve coordination amongst the involved actors. It has designed a real-time crisis management tool in cooperation with end users to ensure a high acceptability of the system in operational environments. The CONCORDE solution is comprehensive and focuses on five conceptual spaces – the PSAPs, EMS en route, field work, transport, and first receiver, each of which has a separate set of functions and tasks that are related to it.

Currently, there is fragmentation, in particular differences in medical protocols, professional training curricula, and country/region specific approaches to first response. It is unlikely that these differences

will be resolved soon. COncORDE seeks to build upon the existing commonalities to create tools to visualise and document emergency response at single agency level.

The technical characteristics of the COncORDE solution were presented to Conference participants by Alkiviadis Giannakoulis (European Dynamics).



Simon Hohberg and Berthold Heinemann (MCS Datalabs) presented the EMYNOS project, which focuses on next generation emergency communications, including Next Generation 112. The project sees several opportunities in leveraging new types of media (video and real-time text), available data sources (location information, sensor data and images), and new communication channels (eCall, call from browser). As such, the EMYNOS project seeks to address the limitations of today's emergency systems and embrace the new technologies. EMYNOS, in particular, focuses on working on improved availability of user/device position and the needs of disabled individuals. Under the project, a demo emergency call from a browser is foreseen, which would simulate a PSAP receiving a call and location information. The outcomes of EMYNOS, as foreseen, could extend beyond emergency call centres and be used in other call centers and organisations requiring improved positioning and location information.



Collaborative session

The morning of the 19th began in a collaborative mode. PSCE seeks to facilitate delegates to interact and get to know each other through regular collaborative sessions where delegates are set tasks in small groups. The session began with feedback from the collaborative tasks carried out in the last three conferences in Paris (Nov'14), Graz (May'15) and Oxford (Dec'15). PSCE presented the outcome of the collaborative work to identify 'What's in the Public Safety App Store?'. 50 apps were originally brainstormed by delegates in the Paris'14 conference. In Graz'15, delegates grouped and refined the detail of these 'apps' into a final list of 36.

The collaborative session then focused on wearable sensors and bodywear cameras in order to discuss their implications for public safety. The discussions were circled around these four questions:

- In what situations could wearable technology be useful to Public Safety operations?
- What devices are available to consumers which could aid in Public Safety operations?
- How do we handle the data produced by wearable devices?
- What about other non-wearable devices? Are there other devices around us in our environment that can be used to aid Public Safety operations?



How Copernicus and Galileo services support crisis management

Satellite communication is making an increasingly important contribution to the security of Europe. European citizens are constantly facing security threats that are now more diverse, less visible and less predictable than in previous decades. After the coffee break, 2 SATCOM-related presentations were given. The first one focused on 'Copernicus and crisis management' while the second one addressed 'Secured positioning for PPDR Users'. Participants learned about Copernicus EMS Rapid Mapping as well as how to face positioning vulnerabilities thanks to Public Regulated Service features.

This session concluded the conference. President Lund thanked delegates, speakers and sponsors for their participation and contribution, and closed the event.

Sponsors

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



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