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FOREWORD

2020 has proved to be another very important and challenging year, even more with the COVID-19 pandemic which brought us all to demonstrate **capacity for adaptation and resilience**. During that year, **PSCE** never stopped mobilising its efforts to **support the public safety community**; its commitment in **promoting practitioners' needs** as well as its **involvement in policy-making processes at EU level** shows that PSCE is and will remain recognised as **one of the major actors** in public safety communications in Europe.

For the first time, and in addition to the four projects which PSCE is currently working on with great implication (as coordinator of BroadGNSS and BroadWay, as partner in RESPOND-A and Search and Rescue), four webinars were organised as well as a challenging and successful annual online conference, as so many ways to adapt to the new public health context. PSCE also took part in several European collaborative publications and co-organised webinars, published some policy papers, kept participating in events and workshops and continued its activities of dissemination and communication.

Digitalisation has already modified in many ways our work and practices. This brings new **opportunities** but also **ethical questions and risks**. PSCE attempted in 2020 to cover these different aspects because public security organisations must be able to codefine these transformations.



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WHAT IS PSCE?

OUR AIM

The aim of the Forum for Public Safety Communication Europe (**PSCE**) is to foster, by consensus building, excellence in the development and use of public safety communications and information management systems as well as to improve the provision of public safety services and the safety of the citizens of Europe and the rest of the world.

OUR STRUCTURE

Public Safety End Users Saving Lives!

Managing Strategy, Tactical Planning & Operations Running, Managing & improving the effectiveness of Public Safety Communication Processes

Would this new idea work for you?

> Collaboration to develop new Applications, Services, Devices and Networks

New and improved Communication Applications, Services, Devices and Networks

Researchers

Research and Development of novel improvements for Public Safety Communication -Legal, social, Process and Technology

We have this problem, can you find a solution ?

We want to improve our products and services

Industry

Development and Supply of Communication Applications, Services, Devices and Networks

PSCE ACTIVITIES

EUROPEAN COLLABORATIONS AND PUBLICATIONS

1) PSCE CONTRIBUTION TO SCIENCE FOR DISASTER RISK MANAGEMENT 2020



The Disaster Risk Management Knowledge Centre (DRMKC) started to prepare the second Report in the "*Science for Disaster Risk Management*" flagship series.

This Report aims to broaden the knowledge of disaster risk in Europe, by collecting and merging the scientific results and experience of several actors.

The Science for DRM 2020 report focuses on analysing the consequences of a disaster on various assets (population, economic sector, critical infrastructures, environment and cultural heritage) to take advantage of the data and lessons that can be extracted in the aftermath of an event to propose paths of action to reinforce prevention, mitigation and adaptation.

PSCE contributed to section 3.4.4 Communication Systems within section 3.4 Critical Infrastructures. This chapter discusses the fast changing nature and increasing pace of information exchange, and our growing societal dependance on our mobile communication systems. We look at recent disasters where communication is lost, and discuss potential solutions considering both societal and technical measures.

Before the publication of the full report, you will find the **final version of the preview** <u>here</u>.

2) PSCE CONTRIBUTION TO 5G PPP TECHNOLOGY BOARD & 5G IA VERTICALS TASK FORCE WHITE PAPER



This white paper summarises the progress and key findings produced by 5G PPP projects to provide 5G network services for vertical industries. It provides information about requirements and business cases addressed by the projects. It discusses in detail several exemplary use cases from 11 different vertical sectors and identifies key 5G features that have been used to meet the specified requirements.

PSCE contributed under "*Indicative Use Cases for the Vertical Sectors*" with regards to Public Safety, and currently participates in **regular discussions with 5GIA**.

You will find the "*Empowering Vertical Industries through 5G Networks - Current Status and Future Trends*" White Paper <u>here</u>.

3) JOINT PAPERS WITH GSMA ON IOT



A **joint working group** was set up between **GSMA and PSCE** in 2019. The work focused on the first hand on **Internet of Things (IoT) concepts** from a mission critical communication perspective and on the other hand on **IoT use-cases**.

The results of this work have been **published early in 2020** and are findable <u>here</u> under the titles (i) *Critical Communications IoT Concepts (PSCE-GSMA)* and (ii) *Critical Communications IoT Tech. Analysis (PSCE-GSMA)*.

4) LIST OF POLICY PAPERS

In 2020, **PSCE** published **two policy papers** in the domains of **Electronic Communications** and **Climate Change**, findable <u>here</u> under the following titles: (i) *PSCE comments to BEREC guidelines on PWS*; (ii) *PSCE Policy Position on Climate Action*.

a) Electronic Communications

Through the consultation of national public authorities in charge of delivering public warning messages to their population, and thanks to the organisation of three dedicated workshops (2019) on the implementation of article 110 of the European Electronic Communication Code (EEC), in cooperation with the national authorities of Belgium, Finland and France, gathering the views of the practitioners coming from all EU countries, PSCE published 31st January 2020 its comments to <u>specific questions</u> and features of PWS public warning system to the Body of European Regulators for Electronic Communications (BEREC)'s guidelines on how to assess the efficiency of public warning systems transmitted by different means. More especially, PSCE gave comments on the methodology, answered some specific questions and indicated features of Public Warning Systems (PWS).



b) Climate change

After providing critical insight into Public Safety and Disaster Response (PPDR) since 2009, **PSCE committed, in March 2020, to take action in response to the climate crisis**, and published a **list of principles** on which its actions are based, taking into consideration "*The European Green Deal*" and "*The New Industrial Strategy for Europe*".

The PPDR sector is aware of the challenges due to climate change and **PSCE brings** some proposals to the table in view of mobilising our industry for a clean and circular economy; safeguarding residents, municipalities and businesses from the impacts of climate change is amongst the priorities of PSCE.

EVENTS

Due to the **extraordinary context of COVID-19 epidemic** in 2020, PSCE was not able to maintain the organisation of its two semestrial physical conferences. However, **to keep providing relevant and up-to-date information to all PPDR stakeholders** (end users, industrialists, researchers, EU institutions), and **to keep allowing and stimulating open discussions** in view of fostering debate, **PSCE organised multiple events** - own events (4 webinars and a Fireside Chat for its members) and co-organised 3 webinars -, which were all a success.



1) WEBINARS ORGANISED BY PSCE

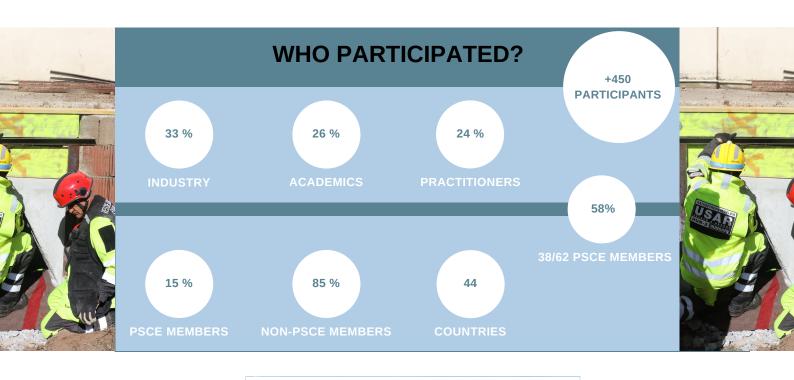
PSCE organised 3 webinars in May and June related to the management of the activities run by PPDR stakeholders, in the COVID-19 pandemic and confinement context, and 1 webinar and workshop in November, related to Use Cases and Scenarios for Good Practitioner-led innovation in PPDR:

- **07 MAY 2020** - Phasing out of confinement measures: how can IT tools help make the transition?

- **23 JUNE 2020** - Crisis Management, surveillance and digital ethics in the COVID-19 era.

- **30 JUNE 2020** - Managing COVID-19: what were the challenges for European PPDR organisations?

- **20 NOVEMBER 2020** - Use-cases and scenarios for good practitioner-led innovation in PPDR.



All the webinars are viewable here

2) PSCE MEMBERS FIRESIDE CHAT

On **1st December 2020**, PSCE organised a **special fireside event** to **maintain contacts and stimulate discussions** among its members.

The webinar gave the floor to eleven members who presented their activities and challenges:

-Andrea Nowak (AIT): News on Digital Safety and Security and solutions developed for crisis management.

-Mathieu Lafforgue (Intersec): News on Public warning.

-Pablo Gómez (Genasys): Public warning in the world.

-Monika Büscher (Lancaster University): 20th Webinar follow-up and IsITethical?.

-Uwe Kippnich (Bavarian Red Cross): Maps from social media.

-Gerard Carmona (French Ministry of Interior): Réseau radio du futur.

-David Lund (PSCE): BroadWay update.

-Georg Aumayr (Johanniter Austria): Challenges from Johanniter.

-Krzysztof Samp (ITT): News from ITT.

-Philipp Zimmermann (Swiss Phone): How to contact 112 centre during a blackout? -Sedat Kara (Hitec): Limitations of use of smartphones in S&R and people safety operations.

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3) CO-ORGANISED WEBINARS



A serie of webinars was co-hosted with the EU 5G Observatory and a sub-set of 3GPP Market Representation Partners (MRPs), and had a look at spectrum sharing, service continuity and private networks from the perspective of diverse verticals, including automotive (5GAA), manufacturing (5G-ACIA), broadcasting and media (5G-MAG) and public safety (PSCE):

- **05 MAY 2020** - <u>3GPP Progress so far: Industry verticals and releases 16 and 17</u>

- 18 JUNE 2020 5G Spectrum for Industry verticals
- 15 JULY 2020 5G for Healthcare, social care and public safety

The next webinar is in planning for April/May'21 to cover the topic of how edge computing will be used by different verticals.



OUR EXPERTISE, OUR PROJECTS

SATELLITE APPLICATIONS

BROADGNSS: INNOVATION & INFORMATION



On 6th November 2020, PSCE signed a grant agreement with European GNSS Agency (GSA) to coordinate the BroadGNSS Pre-Commercial Procurement programme.

BroadGNSS will procure **Innovation activity for Applications, Synchronisation and** Monitoring of Critical Mobile Broadband Communication Infrastructure and Information Assets for PPDR Operations.

It brings together **3 members of a joint procurement team**: **French Ministry of Interior** (lead procurer), **Estonian Infocommunication Foundation**, **Finnish Erillisverkot**; supported by PSCE, Austrian GNSS experts and OHB Digital.

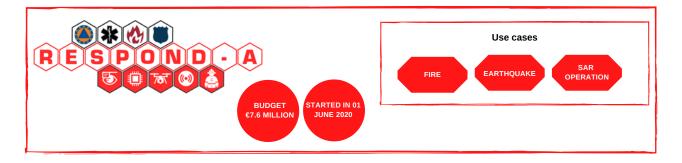
€2.5Million is reserved for pre-commercial procurement of innovation solutions. This budget will be made available to industry following an open and competitive process. The challenge to industry will seek innovative solutions to apply EGNSS (European Geostationary Navigation Overlay Service) to further improve the overall capability of trustworthy information exchange, enabled by new broadband mobile communication.

BroadGNSS will **consult key government stakeholders across Europe** in order to scope the specific objectives of the PCP procurement. A **Prior Information Notice** will be released **to initiate consultation with innovative industry** to contribute their knowledge and capabilities to help our team to prepare a formal request for tender.

https://www.broadgnss-info.eu/

TECHNOLOGIES FOR FIRST RESPONDERS

RESPOND-A



Bringing innovations to **improve capabilities of First Responders is essential**. **PSCE** is committed to **enhance the resilience of our European safeties** and to **strenghten our crisis management capacity**.

RESPOND-A aims at developing holistic and easy-to-use solutions for First **Responders** by bringing together the complementary strengths of its Investigators in 5G wireless communications, Augmented and Virtual Reality, autonomous robot and unmanned aerial vehicle coordination, intelligent wearable sensors and smart monitoring, geovisual analytics and immersive geospatial data analysis, passive and active localisation and tracking, and interactive multi-view 3600 video streaming.

The **synergy** of such cutting-edge technological advancements is likely to **provide highend and continuous flows of data, voice and video information to First Responders and their Command & Control Centers** to predict and assess the various incidents readily and reliably, and save lives more efficiently and effectively, while maximising the safeguarding of themselves, before, during and after disasters.

To this end, **RESPOND-A** envisions at exercising First Responders to get familiar with the project technological outcomes, and demonstrate their real-world performance and effectiveness in the classified training facilities of our Responder Partners under hydrometeorological, geophysical and technological disaster scenarios.

PSCE delivers the Dissemination & Communication Strategy as well as the Data Management Strategy deliverables.

https://respond-a-project.eu/

SEARCH & RESCUE: PLATFORM FOR FIRST REPONDERS

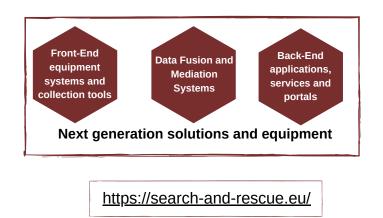


Search and Rescue (S&R) project will design, implement and test through a series of large scale pilot scenarios a highly interoperable, modular open architecture platform for first responders capitalising on expertise and technological infrastructure from both <u>COncORDE</u> and <u>IMPRESS</u> FP7 projects.

The governance model of S&R will be designed to operate more effectively and its architectural structure will allow to easily incorporate next generation Research and **Development (R&D) and Commercial Off-The-Shelf (COTS) solutions** which will be possibly adopted in the future disaster management systems.

The framework will enable supportive approach using a wider range of decisional support features and monitoring systems, and will also give to first responders an effective and unified vision of (a) the dynamic changes going on during event's lifetime and (b) the capabilities and resources currently deployed in the field.

PSCE, as part of its activities, **organised a clustering webinar** (December 3, 2020) on the topic of **end-user requirements for first responders technologies**, gathering **120 partners from 7 projects** (under DRS02 Technologies for First responders).The objective was **to share best practices on the way user requirements are collected** and the **main findings of the projects**.



BROADBAND COMMUNICATIONS

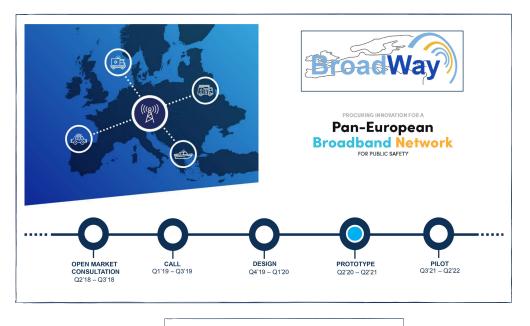
BROADWAY: PROGRESS IN PCP PROCESS

The **BroadWay** project will take the first procurement steps to enable "*interoperable next generation of broadband radio communication systems for public safety and security*" to improve PPDR service to Europe's citizens, and enhance interoperability across borders.

On 27th November 2020, the BroadWay innovation procurement project (precommercial procurement(PCP)) presented its objectives and its intermediary results to the European Commission DGs: DG Echo, DG Home, DG Connect, Defis and Taxud, Agencies: Eu-Lisa, Frontex, the European GNSS Agency, and the European Investment Bank. It was an opportunity to highlight the need for Operational Mobility for public safety and what it could achieve for PPDR in cross-border and pan-European operations.

During 2020, the PCP progressed and moved from the design phase to the **prototype phase**. Following competition, **three consortia** were selected to **develop a prototype for April 2021**.

The purpose of the **PCP**, still in process, is to realise **innovative solutions for the implementation of the** "*SpiceNet Reference*" architecture as defined by the BroadMap project. A **pan-European pilot system** will be developed within the timeframe **2022**, validated by sustainable test capabilities, and to the satisfaction of a European wide team of public safety practitioners.



https://www.broadway-info.eu/

CRISIS MANAGEMENT

DRIVER+: TOWARDS THE SUSTAINABILITY



Launched in May 2014 and ended in June 2020, **DRIVER+ (Driving Innovation in Crisis Management for European Resilience)** is a project funded under the 7th Framework Programme of the European Commission.

Its main aim is to cope with current and future challenges due to increasingly severe consequences of natural disasters and terrorist threats, by the development and uptake of innovative solutions that are addressing the operational needs of practitioners dealing with Crisis Management.

PSCE contributed to the development of 2 CWA (CEN Workshop Agreements) standards published in 2020: <u>CWA 17514 Systematic assessment of innovative</u> <u>solutions for crisis management - Trial guidance methodology</u> and <u>CWA 17513</u> <u>Crisis and disaster management – Semantic and syntactic interoperability</u>.

A Trial Guidance Methodology (TGM) was written to evaluate the innovations and PSCE has decided to adapt and implement this methodology in many of its projects. One of the outputs of the project is a practical guide and approach to help crisis response organisations to understand what extent technical solutions tool or a new training method can be innovative.

https://www.driver-project.eu/

FUTURE PRIORITIES

In the future, and with the objective of remaining a key actor in public safety communications in Europe, PSCE will focus on the following:

- Keep Public safety in the EU debate, with the will of publishing more documents, like white papers and policies, to influence the EU institutions' work and keeping organizing events to promote Public safety to a wide audience (institutions, users, research, industry).

- Continue to work **to strengthen the voice of end-users**, first link to society, in the constant feedback process we ensure with other categories of organizations (institutions, research and industry).

- Work to stimulate and facilitate the broadband communications and the access to an "European and operational mobility" for Public Protection and Disaster Relief (PPDR), through the <u>BroadWay and BroadGNSS</u> projects.

- Follow the development of new space applications for public safety by the reinforced cooperaion with the European Space Agency (ESA) and European GNSS agency. The link already in place with ESA will be formalized in 2021.

Also, a new and more modern website will be released in the first semester 2021.



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