



Mapping Interoperable EU PPDR Broadband Communication Applications and Technology

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Research on secure broadband communication in FP7 and Horizon 2020 Security

Policy background

- *Strong interest from Member States, both on ministerial level as well as on end-user level.*
- *Cross-border communication issues between police forces.*
- *Industrial competitiveness.*
- *Lack of interoperability, not only technical but also organisational (including language).*
- *Artificial borders and obstacles.*
- *Crime and emergencies do not know borders.*

FP7 topics on Secure Communication

Topic number	Topic title
ICT-SEC-2007-1.0-04	Security systems integration, interconnectivity and interoperability: ICT support for first responders in crises occurring in critical infrastructures
SEC-2007-4.2-04	Wireless communication for EU crisis management
SEC-2010.4.1-1	Aftermath crisis management - phase I
SEC-2011.5.2-1	Technical solutions for interoperability between first responder communication systems – Capability Project
SEC-2012.5.2-1	Preparation of the next generation of PPDR communication network - Capability Project



FP7 projects on Secure Communication

Project Acronym	Project Title	Total
EULER	EUropean software defined radio for WireLEss in joint secuRity operations.	€8.720.692,00
FREESIC	Free Secure Interoperable Communications	€3.284.040,00
GERYON	Next generation technology independent interoperability of emergency services	€2.512.308,65
HIT-GATE	Heterogeneous Interoperable Transportable GATEway for First-Responders	€3.451.257,72
PPDR-TC	Public Protection and Disaster Relief – Transformation Center	€2.890.684,20
SALUS	Security And InteroperabiLity in Next Generation PPDR CommUnication InfrastructureS	€3.499.829,00
SECRICOM	Seamless Communication for Crisis Management	€8.606.568,20
DITSEF	Digital and Innovative Technologies for Security and Efficiency of First Responders operation	€2.798.517,50
HELP	Enhanced Communications in Emergencies by Creating and Exploiting Synergies in Composite Radio Systems	€991.255,00
FREESIC	Free Secure Interoperable Communications	€3.284.040,00
Total		€40.039.192,27



European Agenda on Security

"Research and innovation is essential if the EU is to keep up-to-date with evolving security needs. Research can identify new security threats and their impacts on European societies. Innovative solutions will help to mitigate security risks more effectively by drawing on knowledge, research and technology. Horizon 2020 can play a central role in ensuring that the EU's research effort is well targeted, including factoring in the needs of law enforcement authorities by further involving end-users at all stages of the process, from conception to market."

What we expect from BROADMAP

- *"To create an EU-interoperable broadband radio communication system for public safety and security, providing better services to first responders and police agencies and allowing shorter reaction times to prevent from more casualties or victims, deployed by 2025."*
 - **Basis for the technical requirements for a potential PCP.**
 - **Basis for the creation of an entity to manage the future Pan-European Communication network.**

SEC-04-DRS-2017: Broadband communication systems

- *"The SEC-04-DRS-2017 will be modified during the update of the 2017 Work Programme [...]."*
- *"Phase 1: Plan and implement the tender procedures, based on the set of specifications and tender documents delivered by the CSA launched under Call DRS-18-2015 and available upon request to the European Commission"*
- And to provide the specifications for a entity to be created.

PCP

- When
 - Challenge **requires R&D** to get new solutions developed. Problem clear, but pros / cons of several potential competing solutions not compared / validated yet. **No commitment to deploy (PPI) yet.**
- What
 - **Public sector buys R&D to steer development of solutions to its needs**, gather info about pros / cons of alternative solutions to be better informed to make specs for a follow-up PPI possibly later, **to avoid supplier lock-in** (create competitive supply base)
- How
 - Public sector buys R&D from **several suppliers in parallel** (comparing alternative solution approaches), in form of competition evaluating progress after critical milestones (design, prototyping, test phase), risks & benefits of R&D (e.g. IPRs) shared with suppliers to maximise incentives for wide commercialisation



Thank you for your attention !

More information:

http://ec.europa.eu/dgs/home-affairs/financing/fundings/research-for-security/index_en.htm

The Work Programme:

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2016_2017/main/h2020-wp1617-security_en.pdf