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Information Society and Media Directorate-General  
Electronic Communications Policy  
**Radio Spectrum Policy**

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## **RADIO SPECTRUM COMMITTEE**

### **Working Document**

**Subject: Summary report from the EU workshop on  
"The future of PPDR services in Europe"**

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European Commission, DG Information Society and Media, 200 Rue de la Loi, B-1049 Bruxelles  
RSC Secretariat, Avenue de Beaulieu 33, B-1160 Brussels - Belgium - Office BU33 7/09  
Telephone: direct line (+32-2)29.56.512 / 93503, switchboard (+32-2)299.11.11. Fax: (+32-2) 296.38.95  
E-mail : [info-rsc@ec.europa.eu](mailto:info-rsc@ec.europa.eu)

## **Introduction**

On 30 March 2011 the Commission held a workshop on "The future of PPDR services in Europe". It was attended by 90 participants representing national administrations and governmental organisations responsible for public safety tasks, spectrum regulators, equipment manufacturers and telecom operators, as well as a representative of the European Parliament.

The goal of the workshop was to understand better the nature of national commitments regarding public safety and security tasks which require high-speed mobile communications (broadband), and the real spectrum needs that this entails.

This workshop was jointly organised by DG Information Society and Media (INFSO) in close cooperation with several other Commission services, namely DGs Humanitarian Aid and Civil protection (ECHO), Home Affairs (HOME), and Enterprise and Industry (ENTR).

The list of speakers is included in the attached final Workshop programme.

## **Welcome address by the Commission**

Participants of the workshop were welcomed by Bernd **Langeheine**, Director in DG INFSO (Directorate B - Electronic communications policy). He underlined that while the role and competence of Member States are fully respected, the Commission has a role to play in ensuring a necessary co-ordination of policies to facilitate and support the effective planning and implementation of PPDR services. The Commission can help national administrations to address the need for a coordinated approach to radio frequencies which would enable wireless communications used by PPDR services to operate effectively and without harmful interference. As an example, European co-ordination would benefit the internal market for PPDR equipment and help to ensure economies of scale which would lower the cost of purchasing and operating such equipment. Article 7 of the Commission proposal for a multiannual Radio Spectrum Policy Programme (RSPP) includes the requirement that the Commission and Member States cooperate to meet the spectrum needs for the internal market in relation to several EU policies including environmental protection, public safety and protection, civil protection and disaster relief.

## **Summary of presentations from Session 1 – National activities**

### **- Germany**

Heinz-Dieter **Meier**, Director in the Federal Police of Germany highlighted public order and security as the main priority. Germany recently completed the deployment of the new digital network under the TETRA 25 standard for voice PPDR communications. Sufficient network coverage and interoperability with networks in neighbouring countries are important in PPDR communications. Mr Meier recalled two studies completed in 2010 for German administration with the goal to identify the future functional requirements of German PPDR services and their spectrum requirements. The favoured option for the German administration is to have a dedicated network for high-speed data PPDR communications operating within a frequency band harmonised throughout Europe. Germany suggested that each Member States identifies future functional requirements of its PPDR services (= survey of high-speed mobile communication needs). Functional requirements identified for PPDR services in each Member State should be translated into detailed spectrum requirements.

## **- France**

Jean-Luc **Aminot** from the French Ministry of Interior informed the participants about the INPT (*Infrastructure Nationale Partagée des Télécommunications*) which is the communication infrastructure for PPDR in France, shared by several government services: National Police (ACROPOL), Fire brigades and emergency medical services (ANTARES) and riot squads (gendarmerie mobile) (CORAIL NG). Future users will be defense, road maintenance services, penitentiary administration, flood prevention and other services. At present, PPDR applications used in France are narrowband. Additional harmonised spectrum ( $\sim 2 \times 10$  MHz) is needed for all PPDR services to create a common network for public safety and defence. The goal of French administration is to have a dedicated PPDR network for mission critical high-speed data applications by 2020. Public networks can still be used for mission non-critical data. France would like to have at the European level a common policy on PPDR frequency bands and prepare future PPDR standards on radio communications.

## **- Finland**

Heikki **Riippa** from the Police Technical Centre informed the participants that the Finnish PPDR network VIRVE (TETRA standard) is fully operational since 2002 with a full domestic interoperability. The network is mainly used by rescue services, police, border guards, customs, military and social and health services. The Finnish experience shows that GSM networks were overloaded during emergency situations, whereas the VIRVE network was operating normally. According to Finnish authorities, the past experience shows a clear need for a dedicated PPDR mobile data network which is not dependent on public mobile networks. In the future, it will be necessary to ensure transmission of more data. Possible alternatives for the deployment of high-speed mobile data PPDR systems were presented.

## **- Austria**

Manfred **Blaha** from the Austrian Ministry of Interior informed about the current state of PPDR communications in Austria. All PPDR services need access to data at the right time and right place. In his opinion, the European PPDR services need harmonised and dedicated spectrum, because public communications networks are destroyed or at least overloaded during major crisis. International cooperation is becoming increasingly important. Mobile broadband PPDR applications will provide efficient and effective services for the European citizens.

## **- Study on spectrum requirements for future PPDR applications**

Scott **Marcus** from WIK-Consult GmbH presented the results of the study on spectrum requirements for future PPDR applications which was completed by WIK-Consult for the German government (Federal Ministry of Economics and Technology). The study was based on the survey of functional requirements (broadband needs) of German PPDR agencies conducted for the Ministry of Interior. The goal of the study was to translate the functional requirements into detailed spectrum requirements. The study considers the following scenarios of PPDR: routine day-to-day use, predictable events (e.g. sport events) and unpredictable events (e.g. natural disasters, terrorist attacks). Available commercial networks are perceived as complement of a dedicated broadband PPDR network. The study suggests that the German government policy should advocate a harmonised allocation with two sub-bands below 1 GHz: one of 15 MHz (uplink) and one of 10 MHz (downlink). Additional

harmonised allocations above 1 GHz should be required for local "LAN" use for disasters, sporting events, and concerts. An integrated view should be taken toward the use of satellite for severe catastrophes and for areas that are hard to reach with terrestrial networks. German government policy should promote development and use of technical standards that enable seamless interoperability. The study asks the German government to coordinate closely with a wide range of relevant stakeholders.

**Conclusion from Session 1:**

**Clear user requirement for high-speed mobile data services and dedicated PPDR network. Call for European harmonisation of spectrum and European standards to ensure interoperability of PPDR systems.**

**Summary of presentations from Session 2 – Cooperation in Europe and abroad**

David **Paulison**, former administrator of the Federal Emergency Management Agency (FEMA) presented some aspects of current and future advanced public safety communication services in the USA. Recent disasters have shown that effective communications were a major key to success. Public safety operations are carried out by multiple stakeholders who share their resources including radio spectrum. Crucial is to ensure their effective co-operation, including military forces. The USA opted for LTE technology to create a mass market for PPDR equipment and networks. Future PPDR network in the USA will use the 700 MHz band.

Jon **Mullin** from the European Defence Agency (EDA) gave an overview of the missions and operations of the European Union in the framework of the EU Common Security and Defence Policy (CSDP). He mentioned common requirements, similarities and possible scenarios with regard to communication means between CSDP and public safety services (PSS). In the future, requirements, procedures and standards as well as the level of equipment compatibility can be set in the framework of co-operation between CSDP and PSS missions.

Hans **Borgonjen** who represented the Radio Communication Expert Group (RCEG) of the Law Enforcement Working Party (LEWP) in the Council described the current situation in PPDR mobile communications in Europe. He recalled the Council Recommendation (2009) on improving communication between operational units in border areas<sup>1</sup> which stated that effective cross-border cooperation requires adequate communication capabilities including interoperable radio communication systems in border areas and between operational services in Member States. The RCEG is also dealing with spectrum needs for high-speed data applications. Mr Borgonjen emphasised the mission-critical feature of PPDR operations. In his opinion, it is necessary to harmonise a dedicated frequency band for broadband PPDR. The absence of harmonisation would lead to the use of several different frequency bands for broadband PPDR, use of several technologies, a consequence of this development would be a lack of interoperability, no free movement of service and no co-ordinated PPDR at European level.

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<sup>1</sup> <http://register.consilium.europa.eu/pdf/en/09/st10/st10141.en09.pdf>

Christoph **Kautz** from the European Commission gave an overview of EU industrial policy in PPDR domain. The goal of the policy is to create strong internal market for security applications, by overcoming the market fragmentation and strengthening the European industrial basis. The EU industrial policy should facilitate the way from research to development and putting on the market. Important is to achieve interoperability whose main enablers are availability of spectrum, use of supporting technologies, standards and appropriate business models. The end of the deployment of TETRA and TETRAPOL networks is expected around 2015. Security research is included in the EU 7<sup>th</sup> Framework Programme, notably as regards integration, interconnectivity and interoperability of security systems.

Egil **Bovim**, Director of the National Centre on Emergency Communication in Health, Norway, spoke about the future role of rescue teams and their needs in regard to high-speed mobile PPDR communications.

**Conclusion from Session 2:**

**Common view that co-operation at all levels among different public safety services as well as with the defense community brings clear benefits.**

**Summary of Session 3 - Creating a common way forward**

This was an interactive session allowing all participants to take part in the discussion. The session also included an intervention from MEP Dr. Paul Rübige who underlined the importance of PPDR services alongside other priorities included in the Radio Spectrum Policy Programme (RSPP).

The following **conclusions** could be drawn from the lively debate.

- There was clear support for a harmonisation at the European level coming from both national regulators and industry. Both equipment standards and spectrum are seen as important elements in this matter. While fully recognising the national competence of the Member States, the co-ordinating role of the Commission is important and is fully acknowledged.
- While some PPDR high speed data requirements may be covered by commercial networks, there were clear indications that mission critical services call for a dedicated, non-commercial network. This requirement will generate costs that can only be borne by government funding (and not by the market), thus creating a very challenging situation in the period of budgetary cuts. Consequently, it will be crucial to share resources among public safety services and defense in order to ensure cost effectiveness as well as timely solutions.
- Public safety standardisation activities in ETSI have started and all public safety and defense users were invited to participate in order to conceive a standard reflecting the functionality required for various mission critical services.

- Several options for spectrum below 1 GHz were discussed, notably the use of military spectrum, the use of spectrum in the 700 MHz band and migration of existing voice services (e.g. TETRA, TETRAPOL) to a new data network that reuses spectrum in the existing 400-470 MHz range. Some participants felt that the choice of bands is rather a political decision, others took the view that it was too early to decide now.
- The Commission was invited to consider a possible follow-up action such as a European task force. This issue would be discussed further with the Member States at the next meeting of the Radio Spectrum Committee.

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## WORKSHOP

### THE FUTURE OF PPDR SERVICES IN EUROPE

BRUSSELS, 30 MARCH, 10:00 – 17:00

VENUE: room S1, Commission building, Avenue de Beaulieu 25,  
1049 Brussels

## WORKSHOP PROGRAMME

28 March 2011

Workshop Chairman: *Pearse O'Donohue, Head of Unit, Radio Spectrum Policy,  
DG Information Society and Media, EC*

9:30-10:00     **Registration and coffee**

10:00–10:15   **Opening and welcome address**

*Bernd Langeheine, Director, DG INFSO, European Commission*

10:15-11:45   **Session 1 – National activities and commitments**

### **Planning high-speed mobile PPDR networks**

– views from Germany

*Heinz-Dieter Meier, Director in the Federal Police, Germany*

### **Planning of high-speed mobile PPDR infrastructure and future requirements for crisis and disaster management**

- views from France

*Jean-Luc Aminot, Ministry of Interior, France*

### **Requirements for crisis and disaster management (PPDR) in Austria**

*Manfred Blaha, Brigadier-General, Technology Adviser for  
National Crisis and Disaster Protection Management, Ministry of  
Interior, Austria*

### **The Future of PPDR networks in Finland - Requirements and options**

*Heikki Riippa, Assistant Director, Police Technical Centre,  
Finland*

### **Study on spectrum requirements for future PPDR applications**

*Scott Marcus, Director and Head of Department NGN and Internet  
Economics, WIK-Consult GmbH*

Discussion

11:45-12:00   **Break**

12:00 – 13:30 **Session 2 Cooperation in Europe and abroad**

**Some aspects of current and future advanced Public Safety Communication Services in the United States**

*Mr Robert David Paulison  
Senior Partner and founder of Global Emergency Solutions, LLC,  
former FEMA Director and former US Fire Chief*

**Cooperation between CSDP capabilities and public safety  
– views from the European Defence Agency (EDA)**

*Jon Mullin, Capability Director, European Defence Agency*

**European situation on mobile communication**

*Hans Borgonjen, Radio Communication Expert Group (RCEG) of  
the Law Enforcement Working party (LEWP) of the EU Council*

**Future role of rescue teams and their needs in regard to high-speed  
mobile PPDR communications**

*Dr Egil Bovim, Chairman Users Committee PSCE Forum and  
Director of the National Centre on Emergency Communication in  
Health, Norway*

**Industrial policy in PPDR through standardisation and results from  
research**

*Christoph Kautz, DG Enterprise and Industry, European  
Commission*

Discussion

13:30-14:30 **Lunch**

14:30 – 17:00 **Session 3 – Creating a common way forward** (interactive session)

*including:*

**Radio Spectrum Policy Programme and addressing spectrum needs  
for public safety and emergency communications**

*Dr Paul Rübzig, MEP*

Panel discussion (interactive session)