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Information Society and Media Directorate-General

Electronic Communications Policy
Radio Spectrum Policy

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PROGRESS REPORT TO RSPG#15 27 FEBRUARY 2008

REQUEST BY THE EUROPEAN COMMISSION TO THE RADIO SPECTRUM POLICY GROUP FOR AN OPINION ON

BEST PRACTICES REGARDING THE USE OF SPECTRUM BY SOME PUBLIC SECTORS

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1. INTRODUCTION

The Radio Spectrum Policy Group (RSPG), at its 14th meeting on 22 November 2007, adopted the Request for Opinion (RfO) "on best practices regarding the use of spectrum by some public sectors" (doc RSPG07-188). The main objective of the Opinion is to identify means to encourage a more efficient use of spectrum by public sector bodies in the areas of defence, emergency and public safety and public transport.

In the following paragraphs of this section, we briefly describe the main elements of the RfO. In section 2, we give an overview of the first meeting of the Working Group and in section 3 we present the information that needs to be collected in order to address the tasks defined in the RfO. In section 4, we present the preliminary views expressed in the first meeting of the Working Group in relation to the scope of the Opinion, the spectrum management structure in the Member States, assessing and satisfying the spectrum needs of public sector bodies, increasing spectrum efficiency by sharing, fees and market mechanisms and the international context of public use of spectrum. Finally, section 5 highlights the next steps to be followed by the Working Group.

Tasks

The tasks to be performed and issues to be addressed in the Opinion (as set out in the RfO) are the following:

- How to determine objectively the need for radio resources for public use, notably through ex-ante justification and ex-post review mechanisms.
- Practical approaches and possible regulatory implications required to balance public service and commercial spectrum usage interests.
- Practical approaches to deal with competing public service usage interests.
- Proposals for EU activities on research and development, to develop more-spectrum-effective technologies for public uses.
- Recommendations concerning specific sectoral Community policies in the transport area, or emerging areas of EU activity, such as cooperation in civil protection and space.
- Best practices to be considered by individual national entities having responsibility for the public use of spectrum, and as an input in relevant discussions at national level, notably on:
    - The availability of information about the use of spectrum by public sectors for which individual EU sectoral policies exist.
    - Examining the feasibility of the introduction of market-based management tools such as auctions administered incentive pricing, short-term leasing and secondary trading of spectrum.
    - Assessment of the possibility for an active sharing of spectrum between different public, commercial and private sectors.
    - National re-farming mechanisms.

When addressing the objectives of the Opinion mentioned above, the RSPG should consider issues concerning the use of radio spectrum by the public sector bodies, such as:

- An overview and analysis of relevant approaches and best practices in managing spectrum for public uses, as presently pursued at national level by Member States and internationally.

- The institutional set-up and legal competences covering the use of radio spectrum by the public sector at EU level.

- The international context of the use of spectrum by public sector bodies, where public sector uses are often closely linked to international agreements.

- Possible means via which the economic and financial implications of using spectrum are taken into account during planning and budgeting by public sector bodies, with the aim to identify adequate spectrum requirements during the preparation of the procurement of radio equipment / services for public services.

Timetable

November 2007: acceptance of RfO by RSPG#14

January 2008: launch of the Commission Study on "Optimising the use of radio spectrum by the public sector in the EU"

February 2008: first report to RSPG#15

April 2008: workshop organised by Commission Study consultant presenting intermediate results of the Study.

June 2008: discussion on progress of the work and possibly on a preliminary draft Opinion at RSPG#16

August 2008: final Commission Study report

September 2008: public presentation of the Commission Study results

November 2008: discussion of preliminary draft Opinion at RSPG#17

February 2009: adoption of the RSPG Opinion by RSPG#18

Methodology

To develop a draft Opinion, the RSPG has set up a working group and appointed a Rapporteur.

Furthermore, in the development of the draft Opinion, the RSPG invited the Working Group to exploit the synergies with the Commission Study, launched in January 2008, on "optimising the use of radio spectrum by the public sector in the EU" and also consider other activities of the RSPG (e.g. the work on the Opinion on the collective use of spectrum).

Also, the RSPG invited the Working Group to develop appropriate contacts with relevant bodies, such as the European Aviation Safety Agency (EASA), the European Defence Agency (EDA), the European Maritime Safety Agency (EMSA), the European Railways Agency (ERA), EUROCONTROL, the European Police Office (EUROPOL), the European Space Agency (ESA), the GNSS Supervisory Authority (GSA), the International Telecommunications Union (ITU) and the North Atlantic Treaty Organisation (NATO).

2. FIRST MEETING OF WG-PUS

Following the adoption of the RfO by the RSPG at its 14th meeting on 22 November 2007, the first meeting of the RSPG Working Group on Public Use of Spectrum (PUS) was held in Nicosia on 15 January 2008.

The meeting was attended by representatives of 7 Member States, 5 invited organizations, the European Commission and the Consultants of the study "on optimizing the use of radio spectrum by the public sector in the EU". The list of representatives that attended this first meeting, along with others that have expressed an interest in participating in this work but were unable to attend the first meeting, is shown in Annex 1.

In the meeting, 7 contribution documents (by the Rapporteur, France, Germany, Sweden, UK EUROCONTROL and the Study Consultants) were presented. Some of the input documents included suggestions relating to the information that needs to be collected in order to address the various tasks contained in the RfO. Some of the contributions presented initial thoughts about the tasks contained in the RfO as well as practices currently used. Also, the Study Consultants presented an overview of their study.

Following the presentation of the input documents, the Working Group had a very productive discussion on issues of substance as well as on organizational issues.

After the first meeting of the Working Group, contributions from EDA and Aviation Advocacy (private organization) were received.

3. COLLECTION OF INFORMATION

In order to best respond to the RfO, detailed information needs to be collected from **all** Member States, notably on:

(i) Identifying the spectrum management bodies in the Member States, and how they cooperate with each other.

(ii) Identifying the public sector bodies in the Member States that use spectrum in the areas of Defence, Emergency and Public Safety and Transport.

(iii) The methods of assigning spectrum to public bodies in the Member States.

(iv) Whether the spectrum needs of public bodies are defined and, if so, what are the methods of defining such needs?

(v) Possible ex-post review of the spectrum assigned to public sector bodies.

(vi) Whether public sector bodies that use spectrum pay any fees.

(vii) Market mechanisms, if any that are applicable to spectrum used by public sector bodies.

(viii) Public procurements of radio equipment and services in relation to value considerations of spectrum.

Also, in relation to the EU and international context of the use of spectrum by public sector bodies, information needs to be collected on:

(ix) The EU sectoral policies, which relate to the use of spectrum and the competences of the various institutions that deal with the use of spectrum by the public sector at EU level.

(x) The international bodies that deal with spectrum for public use and related international agreements.

4. PRELIMINARY VIEWS

In this section, we present some preliminary views, which were expressed in the first meeting of the Working Group, on the tasks contained in the RfO.

4.1. Scope of the Opinion

The meeting discussed the term "efficient use of spectrum" and recognized that this term cannot be accurately defined or assessed. Therefore, the Opinion will concentrate on practices that improve efficiency of spectrum use.

Also, the meeting agreed that a detailed band by band analysis is out of the scope of this Opinion and that certain bands could be used as examples to highlight policy recommendations.

4.2. Spectrum Management Structure in MS

Spectrum should be used by the public and commercial sectors to foster innovation and promote consumer welfare. Public sector spectrum use is of paramount importance, as it facilitates the fulfilment of general interest objectives and the implementation of key national and EU policies. However, spectrum should not be regarded as a "free good" and should be managed as efficiently as possible.

In certain EU Member States, there may be several authorities that are involved in the management of the frequency spectrum, possibly having decision making powers. In such cases, normally, there is an "electronic communications (commercial) frequency regulator" and other authorities having responsibilities in the management of the spectrum used by the public sector. It is evident that in Member States where there is a multiplicity of "frequency regulators", improving cooperation between all entities involved in spectrum regulation (and spectrum use) is an important element in increasing spectrum efficiency.

Also, when there are competing interests in relation to spectrum matters, there are cases in Europe, unlike the United States, that there is no designated authority with decision making

powers and, as a result, decisions may be taken at political level. Although such arrangements may not always pose particular difficulties, it is reasonable to further explore the issue to determine whether such arrangements constitute, in general, an inhibiting factor in increasing spectrum efficiency.

4.3. Assessing and Satisfying the Spectrum Needs of Public Sector Bodies

Public sector bodies fulfil general interest objectives and therefore they should be assigned the spectrum they need to offer their services. For the public sector to be assigned and use the spectrum it needs, certain assessment mechanisms should be applied. Specifically, there should be an ex-ante determination of the needs that is based on a detailed audit of present requirements. This assessment will need to be revisited regularly (ex-post review) in the light of changes in public service requirements, technologies and the value of alternative uses of the spectrum, taking into account the relevant investments made by the public sector. This process should aim at balancing public service and commercial spectrum usage interests.

It should also be recognized that, as it is the case in the commercial sector, the spectrum requirements of certain public sectors may also increase in the future, as these sectors, following technological developments or increasing demand, may need to introduce new communications services or enhance existing services.

One way of determining the “right amount of spectrum” needed by public bodies is for Governments, where applicable, to define quality of service parameters or safety standards, which must be met by the responsible public bodies, so that these public bodies can make decisions as to how much spectrum they need to fulfill the requirements.

Another way of determining the “right amount of spectrum” needed by public bodies is to apply the so called “justification procedure”. That is, to enable the responsible national authority to judge whether the spectrum requirements of a public sector body are sufficient to execute its task, each public sector body must submit a spectrum requirement. However, the spectrum requirement of a public sector body may change, for example due to the introduction of new systems or because old systems have become obsolete. Therefore, each public sector body must restate its spectrum requirement every (for example) 3 years. Interim updates could also be possible.

When European harmonization measures are adopted (e.g. through EC Decisions), if sharing is not possible, public sector users of the concerned spectrum should be accommodated in other frequency bands, using efficient mechanisms (refarming, financially compensating the affected public sector body). The view is that before a European harmonisation measure, which has an effect on spectrum used by a public sector in one or more MS, is adopted, all possible ways should be studied to minimize the burden on the public sector concerned.

4.4. Increasing Spectrum Efficiency by Sharing

The Working Group identified three sharing possibilities, which can be investigated in depth, in order to recommend ways to encourage more efficient use of spectrum. These sharing possibilities are geographical sharing, time sharing and frequency band sharing.

Frequency Band Sharing

This sharing possibility could be further explored by supporting the technical work of the CEPT and cooperating with ETSI. Also, the promotion of research activities at EU level could result in more frequency band sharing possibilities.

Time Sharing

For the three sectors under consideration, certain spectrum could be identified that need not be used all the time. For example, there may be a need to use some of the spectrum assigned to defence only in crisis situations and when the military is conducting exercises. Therefore, such spectrum could be used for other applications in non-crisis conditions. Clearly, in these situations, appropriate conditions should be included in licenses. There are however cases where time sharing of spectrum use may not be possible because there is a need for continuous use of the spectrum (e.g. some spectrum used by civil aviation authorities).

Geographical Sharing

There are situations where public use of spectrum is needed only in certain geographical areas. For example, some of the spectrum assigned to the maritime sector may need to be used for maritime radio services only near the coastline. Therefore, such spectrum could be made available for other applications in other geographical areas.

Sharing could be facilitated by a number of factors, including the following:

(xi) Precise definition of the parameters of use (technical, time, geographical) of the spectrum by public sector bodies. Especially in the defence sector, due to its sensitive nature, the availability of information may be restricted.

(xii) The public sector body that is using a frequency band should be actively involved in defining the sharing conditions of the band.

(xiii) The establishment of speedy mechanisms for resolving sharing problems (e.g. interferences) and in general disputes by the sharing parties. It should be noted that Eurocontrol has implemented a system to co-ordinate aeronautical frequency assignments within Europe.

4.5. Fees and Market Mechanisms

There are two regimes with respect to the applicability of fees in spectrum use by public sector bodies. In some Member States, public sector bodies pay the same spectrum fees as any other private undertaking using spectrum, whilst in the majority of the Member States, public sector bodies do not have to pay any spectrum fees. In the former Member States, the fact that public sector bodies pay spectrum fees is regarded as a contributing factor to increased spectrum efficiency.

The introduction of market mechanisms could also result in improved spectrum efficiency. It should be understood however that market mechanisms are not applicable in all frequency bands used by the public sector, especially the bands used by more than one public sector. However, there may be a need for legislative changes, for the public sector to be able to apply market mechanisms (e.g. the regime governing the trading of spectrum by public sector bodies).

4.6. International Context

The international context is highly important. Many public services are linked to international agreements. This means that measures to improve spectrum efficiency, with regard to public sector use of spectrum, will need to be pursued in the relevant international bodies rather than by individual administrations. The ITU is the main global body for spectrum use but also sectoral international bodies for particular sectors, such as the IMO, ICAO, Eurocontrol and NATO, play a role. A concerted EU line will help achieve the desired objective in all these bodies. Spectrum that becomes available for sharing, as a result of easing of international constraints, may be more valuable if it is accessible on a harmonised, non-exclusive and flexible (technology and application neutral) basis.

5. NEXT STEPS

Collect Information

The Consultants of the study "on optimizing the use of radio spectrum by the public sector in the EU" plan to collect information by conducting 40 interviews in selected Member States and desk research and prepare a report by June 2008. The RSPG Working Group will be provided with reports with intermediate and final results of the study which will also include summarised results of conducted interviews.

The RSPG Working Group is invited to attend the public workshop organized by the Study Consultants. The workshop will take place in Brussels on Tuesday, 1st April 2008. This gives the opportunity to present the current status of activities of the RSPG Working Group.

Next Meeting

The 2nd meeting of the Working Group will take place in Brussels on 31 March 2008.

6. PROPOSAL

The Working Group would welcome any feedback from the RSPG on this report of the first meeting and any views concerning further work.

Stelios Himonas

Rapporteur

February 2008

Annex 1

MEMBERS OF THE WORKING GROUP

Attendees at 15 January 2008 meeting

Stelios Himonas (Rapporteur)

Yiannis Socratous (Cyprus)

Jean-Yves Montfort (France)

Didier Chauveau (France)

Peter Buttenschoen (Germany)

Stefan Mayer-Bidmon (Germany)

Irini Athanasiou (Greece)

Andrei Eduard (Romania)

Lars Lundgren (Sweden)

Laurence Green (UK)

Mike Goddard (UK)

Ales Brabinek (European Commission)

Marcel Staicu (EDA)

Hans Bier (ERA)

Geoffrey Bailey (Eurocontrol)

Dominic Hayes (GNSS Supervisory Authority)

Dietmar Poplawski (NATO)

Phillipa Marks (Plum Consulting)

Other RSPG members that have expressed an interest in this work but were unable to attend the first meeting.

Margit Huhtala (Finland)

Ioanna Samprakou (Greece)

Mike Byrne (Ireland)

Rory Hinchy (Ireland)

Peter Anker (The Netherlands)

Luisa Mendes (Portugal)

Elkhan Nahmadov (ICAO)