PSCE RESPONSE TO THE EC RADIO SPECTRUM POLICY PROGRAMME CONSULTATION

Public Safety Communication Europe Forum (PSCE) as a permanent autonomous organisation aiming at improving provision of public safety communications and information management systems and the safety of the citizens during crisis and emergency situations, was in this consultation process generally agreeing on the original document submitted by the TETRA association gathering the inputs from various associations, user organisations, equipment suppliers and companies working on public safety and security services (today known as Public Protection and Disaster Relief – PPDR – in ITU and CEPT language).

This being said, PSCE would like to underline its two specific comments, which are integrated under the points a -1 and b – 7 respectively dealing with the technology and service neutrality aspects as well as with the issue of full national coverage.

Therefore, this document is with the exception of two upper-mentioned remarks almost identical with the joint contribution submitted by the TETRA Association.

PSCE, similarly as the joint contribution of the TETRA Association, wants to emphasise that the value of electronic communication services and the value of the spectrum to enable those cannot and should not be measured only in the monetary units contributed to the GDP numbers of the Member States, but part of the value to the society comes via the security, safety, health care etc services that the societies are producing for the benefit of their members and for the benefits of the society itself as a whole. Measurement of these societal values might be somewhat complex directly in numbers, but generating this value is known to be a necessity and comparison of that with the direct monetary GDP contributions is a political decision.

Below, input is provided only to questions that have been seen as having a linkage to the public safety services.

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a. Economic recovery and growth

1) Has sufficient amount of spectrum been allocated for the roll-out of broadband services under technology and service neutral conditions …

Public safety is looking at the radio spectrum from the viewpoint of needing to secure the necessary spectrum resources for exactly their own service and having the spectrum organised in a way that enables cooperation across the national borders. However, the technology and service neutrality aspects are also considered as very important.

It should be noted that as per today the public safety services are not enabled with spectral possibilities to roll out such "broadband" services despite that they have the need to deploy higher speed data services in the field.

2) Innovation by SME's

Professional Mobile Radio (PMR) is one of the typical branches of industry where SME companies contribute significantly to the European innovation, product development and equipment supply, also to markets outside Europe. The market share of SME manufacturers is clearly higher in PMR industry than in other telecommunication industries.

Availability of radio spectrum for PMR systems is naturally a key enabler to this business where the SME's are playing a bigger role than what they have in telecommunication industry in general. It is these SME companies whose whole existence actually is dependent on availability of PMR frequencies.

3) Seamless services across borders

The public safety services have a known need for operations across borders, as documented e.g. in the Schengen Articles for police and customs operations. Creation of the ERC/DEC(96)01 to effectively

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harmonise the 380 to 400 MHz spectrum was an excellent example of successful spectrum policy to enable the services to meet their legal and operational obligations.

This need will remain for any future services and any future frequencies to be used in public safety operations. This is both an operational need and a legal obligation.

b. Social inclusion, services for citizens

5) Bridging the digital divide

From the point of view of the public safety services it is clear that the services have to be provided efficiently in a nationwide scale without having "underserved areas". For example emergency medical services have to be organised for everybody potentially needing those some day somewhere, and the same is true for the communication facilities needed for provision of those services.

7) Spectrum efficient technologies and spectrum access for public users of spectrum

The European public safety forces are actually using the radio spectrum quite efficiently already today, the major improvement happened when digital radio technologies were introduced and the shared nationwide public safety radio networks were introduced to accommodate all agencies. The ERC Decision (96)01 identified 2 x 5 MHz new spectrum for emergency services between 380 and 400 MHz. Consequently the earlier VHF and UHF bands for analogue radios are being vacated for other possible usages.

It should be noted that this 2 x 5 MHz band is only approximately 0.2 % of the total spectrum below 6 GHz, which is even less than what the study conducted for the EC on Public Use of Spectrum in 2008 identified, concluding then than public safety would hold 0.9 % of that spectrum. We suggest that even if the Public Use of Spectrum study identified near to 50 % of the said spectrum to be in public use, that 50 % quota could not be

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really reduced by trying to apply whatever compression measures to the sub-1 % quota of public safety.

Public safety forces are now becoming spectrum resource limited when they should take mobile data services into use extensively. The current 2 x 5 MHz band can serve the narrowband radio needs (mainly voice and messaging) reasonably well, except for some high traffic density spots near to national borders. It has however become evident that development towards data centric operating modes is blocked by lack of spectrum to enable that.

The possible development scenarios towards data intensive operations are analysed in a recent report "Public safety mobile broadband and spectrum needs" by Analysys Mason that drew 4 possible scenarios named as:

- Steady growth
- Data enhances voice
- Information driven
- Full multimedia reliance

The report concludes that only the "Steady growth" scenario could be implemented on the basis of existing radio networks – when complementing those with wideband channels located at yet a bit unclear frequencies – but all other scenarios will require much higher data capacities and new frequency band. The full report is available at the website www.tetra-association.com.

The ongoing work on the PPDR spectrum within CEPT is trying to resolve the stated need for more PPDR spectrum but has not been able to identify a suitable spectrum slot for the purpose so far. However, in early 2009 the CEPT WG FM, as a result of wide questionnaire to stakeholders came to the following conclusions:

- the use of data in PPDR operations is increasing rapidly
- increased mission critical data communication justifies the spectrum request
- many requirements lead to need of dedicated network, however commercial networks will also be used for non-mission critical data

As the public safety operations are needed always to be available in nationwide scale the cost of radio coverage to support such wide area of operation could easily become something totally unbearable for the national budgets unless the operating frequencies are selected carefully. For this reason both ETSI in its System Reference Document specifying the future public safety radio needs, and the European Council of JHA Ministers in its Recommendation from June 2009 conclude that the spectrum to serve the new public safety data needs has to be below 1 GHz. It should be noted that the public safety radio network designs are coverage limited instead of being capacity limited like urban cellular designs are, and the network coverage planning is not based on subscriber densities or expected revenues. Commercial operators can build their business cases on percentage of population covered whereas public safety is counting square kilometres. For public safety the cost of coverage is much more crucial than the cost of capacity. In this regard, the PSCE is of the view that the issue on full national coverage needs to be further elaborated as the need for an absolutely 100% national coverage may not be universal across Europe.

The capacity dimensioning of public safety radio networks is normally done to meet the needs of major incidents, where the user density suddenly multiplies and traffic load can be several times higher than the average load of the network. The ETSI System Reference Document quantifies the broadband spectrum need as 2 x 10 MHz in continuous blocks to cater for reasonable data rates and frequency re-use patterns plus cross-border coordination.

In the framework of the development of the European spectrum strategy and its next steps we see necessary that these needs are properly addressed as the current uncertainty around the spectrum is holding the start of standardisation work and the consequent investment plans in various parts of the supply chain.

We take this opportunity also to remind that the public safety organisations will likely not have financial resources for competing on the same level with other stakeholders for spectrum eventually made available via spectrum auctions. For this and some other reasons like cross-border

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compatibility we do not see that the need can be left to the market forces to resolve.

f. Refarming and competition

15) Measures needed at EU level to ensure that refarming promotes innovation and progress

Public safety community is currently facing spectrum outage as the existing 2 x 5 MHz band below 400 MHz does not provide possibility for the foreseen development of the service capabilities. For resolving this situation it looks obvious that some kind of action is needed in European scale to identify a new band that would provide both the needed data capacity and the needed possibility for cross-border cooperation of the forces.

17) Measures taken to introduce spectrum trading

Spectrum trading and governmental use of spectrum form a combination that requires careful analysis of all potential issues before deciding any eventual measures. The issues include for example:

- Impact on the price of the spectrum, taking into account that the capabilities of government agencies to compete in secondary trading markets likely are very limited

- The potential competition issues arising from governmental organisations becoming an active party in spectrum trading market

We would suggest that there are easier mechanisms to solve the spectrum needs of public agencies than spectrum trading.

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