Radio Spectrum Policy Group
RSPG Secretariat
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Re.: Public Consultation on Wireless Access Platforms for Electronic Communications Services (WAPECS)

To whom it may concern.

Introduction:

This document depicts Marconi's opinion w.r.t. a public consultation by the RSPG (Radio Spectrum Policy Group). Primarily, the opinion is centered around a questionnaire that the RSPG has provided in a draft document (RSPG05-87-rev). Particular extensions/remarks have been added for information if deemed appropriate. It should be noted that Marconi tries to be as neutral as possible (in particular in terms of political questions) but on the other side tries to guarantee an efficient use of a precious common resource.

Answers to the questionnaire:

Q1:

Marconi agrees with the generic definition of WAPECS. The definition is sufficiently general not to exclude or prioritise any specific method of communication or air interface technology.

Q2:

Marconi also agrees with the term "platform".

Q3:

In principle, there should not be any constraint or restriction for services if using the available spectrum for telecommunication purposes. Nevertheless, this general principle has to be mapped to physical boundary conditions that may prohibit a combination of extremes. As an example, one important physical boundary condition is NLOS (Non Line of Sight) and LOS (Line of Sight) communication. As undoubtedly, certain lower frequency bands (say < 3 – 4 GHz) are much better suited for NLOS propagation, this part of the spectrum should be primarily used for services requiring NLOS for successful operation and other services that can live with LOS might better be allocated at higher frequencies. Any extreme deviation from these principles will either lead to commercially non-viable solutions or waste precious resources.

Q4:

This is a political question without any constraint other than depicted in Q3. Marconi therefore keeps a neutral position here.

Q5:

Standardisation (in particular focusing on global interoperability) is key for mass market deployment of technology in general. Spectrum policy and international regulation politics have to support that in an appropriate way. Consequently, global interoperable standards require global availability of respective spectrum. Corresponding activities have to be started early enough in order to ensure the timely availability. Failure in considering that can hamper a complete standardisation environment.

Q6:

Besides the relatively simple general principles (LOS/NLOS, maintaining a certain degree of spectrum efficiency without increasing cost) there are many historical and political boundary conditions that have to be considered. Therefore, a short and generic answer to this question can not be given.

Q7:

A “laissez faire” approach is not an option. Nevertheless, the spectrum landscape of today is over-regulated due to the fact that there is too much local control (fragmentation) and too little global harmonisation. A long term strategy for spectrum policy therefore needs to take care of improving this area. Electromagnetic waves do not know about political boundaries. Manufacturers can much more easily develop low cost equipment if the boundary conditions are clear and the fragmentation is low (economies of scale).

Q8/Q9:

Summary of additional recommendations:

- Find right balance between licensed and unlicensed parts of the spectrum
- Try to avoid spectrum fragmentation whenever possible
- Define clear rules of utilisation of individual spectrum parts (channel masks)
- Carefully define power flux densities to optimise mutual interference
- Define rules for power control within relevant systems
- Enable and promote utilisation of software defined radio technology (SDR)

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