SAMSUNG

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Radio Spectrum Policy Group: Update of the RSPG Work Programme RSPG WP "2016 and beyond".

1. Introduction

Samsung Electronics is pleased to respond to the public consultation regarding the above draft opinion from the RSPG. Generally speaking Samsung Electronics believes the work of the RSPG has been successful in bringing new spectrum for wireless broadband to the market and consequently extending the reach and access to mobile broadband services across the European Union.

RSPG identified a number of work items to be developed during the next years and would like to specifically comment on:
- Spectrum related aspects for next-generation wireless systems (5G)
- Internet-of-things (IoT) including M2M and ITS
- WRC-19 preparation (common policy objectives for WRC-19)

2. RSPG Proposals relating to the RSPG Work Plan

(Ref: RSPG15-623)

Spectrum related aspects for next-generation wireless systems (5G):

Samsung Electronics is an enthusiastic proponent for next generation 5G technology that will enable a wide range of future services and applications which are becoming essential for an increasingly 'digital future'. Samsung Electronics is actively engaged in the telecommunications industry wide technology research and development activities including the 5GPPP programme. Samsung Electronics firmly believes that the provision of ultra-high data rate capabilities will be a key component in future 5G networks and that these capabilities will require new higher frequency spectrum resources in a timely manner. The recent agreement of the ITU-R WRC to adopt an agenda item on the topic for WRC-19 and to identify a range of frequency bands for

study in the intervening period is a welcome first step towards identifying this spectrum.

Therefore Samsung Electronics fully supports plans to develop a strategic roadmap towards 5G for Europe and offers the following thoughts when considering the identification of spectrum bands:

- Need to be relevant to the research and development activities
- Facilitate economic implementation of complex technology
- Enable efficient delivery of high bandwidth services
- Offer timely availability either through re-purposing or spectrum sharing opportunities
- Be sufficiently harmonised to address multiple global markets

Internet-of-things (IoT) including M2M and ITS:

Samsung Electronics believes that the number of connected Internet of Things (IoT) is estimated to reach 50 Billion by 2020. For this, the basic fabric of the 5G system design is expected to provide support for up to a million simultaneous connections per square kilometre, enabling a variety of machine-to-machine services including wireless metering, mobile payments, smart grid and critical infrastructure monitoring, connected home, smart transportation, and telemedicine. Intelligent devices will communicate with each other autonomously in the background and share information freely.

Careful consideration need to be given on the future spectrum needs, the most appropriate bands and the authorisation framework to allow this market and innovation to flourish.

Therefore Samsung Electronics fully supports the development of a spectrum strategy on this topic as proposed for the work plan.

WRC-19 preparation (common policy objectives for WRC-19):

The outcome of WRC-19 will be crucial to the future development of 5G in particular to identify frequency ranges that can be harmonised as far as possible on a global basis (or can at least facilitate global hardware implementation).

For the work plan this should be a priority item in order to add value and develop opportunities to capitalise on the active research programme under the 5GPPP intuitive.

Therefore Samsung Electronics fully supports this item in the work plan