

## Deutsche Telekom / T-Mobile Position<sup>1</sup> on Draft RSPG Opinion on Streamlining the regulatory Environment for the Use of Spectrum

### General / Summary

Deutsche Telekom / T-Mobile (DT/TMO) welcome the opportunity to submit comments on the public consultation on the draft RSPG Opinion on “Streamlining the regulatory Environment for the Use of Spectrum”.

DT/TMO acknowledge that this RSPG opinion attempts to consider the entire regulatory environment and the inter-working between the different regulatory areas dealing with the use of spectrum. This is the right way to make spectrum use efficient. Solutions only for parts of this regulatory environment will not suffice future needs.

Spectrum regulation is often complex and difficult to understand, but in order to control radio emissions and to enable interference free radio communication for all spectrum users all over the world it has been necessary to develop a complex meshwork of national and international regulations.

It is therefore of utmost importance that any changes are made in a very careful manner and that sufficient time is given to observe how changes affect the whole system.

These are the core messages of the DT/TMO comment:

- **Increased flexibility in spectrum management is not the only way to enhance spectrum efficiency**  
The most efficient use of spectrum can only be achieved by a balanced combination of all parameters that influence spectrum efficiency. Introduction of more flexible regulatory approaches require careful observation of negative impacts on the other parameters which might compensate the expected positive effects.
- **Harmonisation is critical**  
For a multinational operator like DT/TMO it is of utmost importance that its customers are free to use their equipment in as many countries as possible without receiving interference. Insufficient harmonisation and national deviations are counterproductive to this objective. Harmonisation brings the required economies of scale for both Infrastructure and terminals.
- **Voluntary trading of Spectrum User Rights is supported**
- **Confidence is a result of reliability and predictability of the regulatory environment**  
Reliable and predictable regulation, the experience of interference free use of spectrum and extended participation of stakeholders in the decision making process will strengthen confidence in the regulatory system.
- **Involvement of Spectrum Users is a Necessity**  
It is important that all relevant stakeholders are involved in the further development of the regulatory environment and to take a more active role in this process.

<sup>1</sup> **Note:** As the revision of the Framework Directive and the Authorisation Directive is currently not finished a final comment and a final judgement of the whole regulatory environment is not possible. Therefore we would like to stress that this comment is subject to the final shape of these two directives.

This is currently not the case for RSC and RSPG.

- **Standardisation and Interfaces to Spectrum Regulation**

Current procedures for the development of EMC Standards and Harmonised Standards may not be appropriate for sufficient restriction of unwanted emissions of radio equipment and of electrical or electronic equipment. Spectrum users and in particular operators pay the price by receiving interference or a loss of capacity of the network. In particular it is important that receiver parameters are specified within Harmonised standards.

- **Market Surveillance should be enhanced**

In the draft opinion it is mentioned that market surveillance is necessary to be enhanced as an important pillar for ex post regulation. We support this proposal wholeheartedly.

## **Details**

### **1 Increased flexibility in spectrum management is not the only parameter to enhance spectrum efficiency**

Increase of flexible spectrum management is only one of many tools to make spectrum use more efficient. DT/TMO think that the most efficient use of spectrum will only be achieved by a balanced combination of all parameters that influence spectrum efficiency (e. g. increased flexible spectrum management, harmonisation, introduction of trading, new sharing technologies, etc.). To find this balanced combination for a special situation and for the concerned application/service is a constant task for all stakeholders.

DT/TMO support the introduction of the neutrality principles (technology and service neutrality) in general, but it should not be forgotten, that this will add additional uncertainty to the regulatory system. Therefore it is important that such changes are introduced very carefully and that sufficient time is given to observe how these changes affect the whole system.

It is important to note that mass market radio services, especially modern public mobile communication services, need first of all a sufficient degree of regulatory reliability, predictability and spectrum harmonisation.

We have great concerns with relying on cognitive technologies to detect and avoid other users. Cognitive devices are at a very early stage of development and rely on knowledge of the characteristics of the primary users of the radio spectrum in order to avoid causing them harmful interference.

### **2 Harmonisation is critical**

We observe with concern that apparently European administrations increasingly don't feel obliged to associate themselves with the objective of European spectrum harmonisation. Either they do not wait until harmonised solutions are available or they pursue special solutions that obviously only maximise national interests. Therefore DT/TMO think that maximisation of European spectrum harmonisation should again enjoy higher priority.

DT/TMO would like to stress that insufficient international harmonisation is often a significant reason for inefficient spectrum use and interference. For a multinational operator like DT/TMO it is of utmost importance that its customers are free to use their equipment in as many countries as possible without receiving interference. Insufficient harmonisation and national deviations are counterproductive to this objective. Harmonisation also brings the

required economies of scale for both Infrastructure and terminals. Vendors will not produce mass market equipment for a few countries at a reasonable price.

Harmonisation for mass market mobile devices is critical. If harmonisation is not possible for a long period of time, it might be appropriate to employ flexible national solutions until full harmonisation is possible.

We are concerned that some countries are deviating from the harmonised band plan for the 2.6 GHz band. Regarding the Digital Dividend in the UHF Band we support harmonisation to the greatest extent possible in Europe in order to enable efficient, interference free use of it and allow mass market terminals to be developed at a reasonable cost.

### **3 Voluntary trading of Spectrum User Rights is supported**

DT/TMO support trading of spectrum user rights which can facilitate access to radio spectrum resources if it is subject to voluntary application by spectrum users.

### **4 Confidence is a result of reliability and predictability of the regulatory environment**

Several times in the draft opinion it is mentioned that it is important to maintain confidence of spectrum stakeholders in national and European regulation. An important element in this regard is that the NRAs and the European Union make reliable and predictable regulation. Investors that acquire spectrum need a level of safeguard over a significant period of time so ensure a return of investment. DT/TMO is of the opinion that this aspect has too often been disregarded.

We observe with concern that some European administrations pursue national solutions at the expense of harmonised European solutions (e. g. the 2.6 GHz band plan). This increases the uncertainty for multinational operators planning to apply for a license and undermines confidence in the regulatory system.

For the consumer of wireless services it is important that interference free use of spectrum or operation (even while travelling) of their equipment is possible. Interference will immediately reduce the confidence of the consumer in wireless services and his willingness to pay for it. Lack of European harmonisation can be a significant source of interference.

A positive measure to increase confidence in the regulatory system is to increase the possibility for stakeholders to influence this system.

### **5 Involvement of Spectrum Users is a Necessity**

DT/TMO thinks that it is important that all relevant stakeholders and users of the spectrum (industry, operators, users ...) are involved in the further development of the regulatory environment and are allowed to take a more active role in this process. Currently only representatives of European administrations are allowed to participate in RSPG and RSC. Some national administrations do not carry out national preparations for the RSPG and RSC meetings and the documents are only made available after the meeting. DT/TMO believe that a more open system is required to allow stakeholders to be involved with the decision making processes.

### **6 Interrelation between Standardisation and Spectrum Regulation**

Of special importance for the protection of radio communication are EMC standards of electrical equipment and Harmonised Standards according to the R&TTE Directive. EMC standards contain limits for the restriction of electromagnetic emissions from electric or

electronic equipment in order to protect radio reception. Harmonised Standards for radio equipment define those parameters of radio equipment which are relevant for compatibility with other radio equipment. DT/TMO are of the opinion that the following aspects should be considered in this context.

**EMC-Standards:** The development of EMC standards today is more or less driven by the manufacturing industry of electric and electronic equipment (mainly non-radio industry). DT/TMO believe that development of these standards needs to be given more prominence by regulators. It is the normal case that the EMC standard for a certain type of equipment is developed more or less by the manufacturers of the equipment which must then meet the relevant EMC limits. As manufacturers can self-certify their equipment there is no other institution that can verify these stipulations and avoid marketing of equipment which is not compatible with radio. Proper market surveillance would then be the only “emergency break” to discover and counterbalance such failure of the system. Unfortunately according to our information market surveillance is today at a very low level in Europe and is therefore not an appropriate corrective tool.

**Harmonised standards:** In order to avoid compatibility problems it is necessary that the MoU between ETSI and CEPT/ECC clearly identifies that CEPT/ECC has the final responsibility for the radio compatibility parameters. DT/TMO thinks that the current MoU could be more clear in this regard.

Moreover, the compatibility parameters defined in the Harmonised Standards should not be changed arbitrarily by national licensing. For the sake of clarity and predictability it is important that these values are applied in all European countries in the same way. If the current regulation by the R&TTE Directive does not fulfil this objective it may be necessary to revise the corresponding text of the R&TTE Directive.

DT/TMO are of the opinion that spectrum users and in particular operators pay the price for insufficient restriction of electromagnetic emissions by reception of interference or a loss of capacity of the network.

If the RSPG does not want to strengthen ex-ante regulation then ex-post regulation should be strengthened, in particular market surveillance. Otherwise it will not be possible to counterbalance negative effects caused by in-adequate protection of radio.

#### **Receiver Parameters within Harmonised standards**

The RSPG Opinion includes the following recommendation:

“5.11 Receiver parameters are important for spectrum management and for facilitating the introduction of new applications in spectrum. Therefore, the RSPG considers that the receiver parameters should be defined by ETSI in the harmonised and/or product standard for all equipment and be used consistently by CEPT in sharing studies as part of the assumptions for the intended use of the bands.”

DT/TMO strongly believe that it is important that receiver parameters are defined in harmonised standards. Where harmonised standards are not available then these parameters should be included in the product standards. We therefore would propose that this recommendation is re-worded in the opinion to state that „receiver parameters should be defined by ETSI in the harmonised standard and where one is not available within the product standard “

## **7 Market Surveillance should be enhanced**

In the draft opinion it is mentioned that market surveillance is necessary to be enhanced as an important pillar for ex post regulation. We support this proposal strongly. Unfortunately, according to our information, market surveillance is on a very low level in the EU Member States. From an operators point of view this a critical issue. If the essential parameters of the R&TTE directive are not met this can result in severe loss of capacity and efficiency of the network (see section 6). That means the operators pay for the badly constructed equipment



and for the savings of regulators by low level of market surveillance.  
If market surveillance does not work properly, the entire concept of ex post regulation is put at risk.

Best Regards

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