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## DIGITALEUROPE VIEWS ON ANTENNA PERFORMANCE

EU COMMISSION WORKSHOP (10 APRIL 2014)

### 1- INTRODUCTION

DIGITALEUROPE understands the issue and the sensitivities around antenna performance. However, we do not believe that the best possible solution to tackle this would be to introduce another labelling scheme.

**Key reasons why handset manufacturers believe so, are:**

1. It is not one sided – any solution that addresses only the handset side and not the network side is insufficient and will not be effective.
2. It is complex – It would be complex to implement, careful consideration should be given to costs and benefits of any such labelling scheme and its impact on the market.
3. It is not useful for end users – any labelling information would be difficult to understand for end-consumers and would therefore not provide any meaningful information to the consumer.

**Therefore, manufacturers propose to consider:**

Existing voluntary certification schemes and how they can be utilized better to achieve objectives.

Manufacturers are prepared to work with the Commission, mobile network operators and consumers to improve the existing situation but the best way to do so is on a voluntary and self-regulatory basis.

We provide further arguments for our statements.

### 2- COMMUNICATION

- All communication is two sided, between terminal and network
- Different types of communication (voice, SMS, data) requires different types of coverage
  - SMS can be sent in really bad areas
  - Voice can be performed even with disturbed coverage

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- Data requires better coverage and it increases with the data rate
- Network coverage is the main factor affecting terminal performance
- In normal use the network controls the terminal's transmitting power

### **3- COMPLEXITY**

- For GSM, all devices today have 4 GSM bands where 900/1800 normally is optimized for Europe.
- For UMTS, devices are normally using 2 bands in Europe plus a couple of roaming bands.
- For LTE, a normal device used in the EU needs 8 LTE bands to cover all markets/networks. In addition there is a need for some roaming bands when travelling.
- A typical device intended for the EU market released in 2014 supports 4 bands GSM, 5 bands UMTS and 10 bands LTE, totally 19 bands. At least half of the bands are used in Europe.
- Each band can also have a different performance at different channels within that band.
- The device in itself has a specific performance for each band that is often selected for best performance on the intended operators.
- Current standards for antenna testing also take into account configurations for browsing in the hands in addition to in a call against the head. These additional values would prove further complexity to understanding the results and any labelling.
- Most devices are also tested against the GCF requirements and these also include antenna performance requirements.

### **4- END USER INFORMATION**

- Consumer information for providing antenna performance aspects could define the best performance per band but the end user would be confronted with as many 19 values on the label. In order to make this information meaningful for the consumer one would then need to know what bands his/her mobile network operator uses.
- Even if different operators use the same bands, performance at each channel can differ and channels can also vary between geographical areas for the same mobile network operator.
- Devices on the market are multiband; how would one rate a device with an excellent performance in one band but only modest performance in another?

- How would one take into account that the frequency usage may be different from country to country, even within Europe?

## 5- EUREXCEM REPORT

- Conclusions of the report mix two different issues:
  - Requirements for placing a device on the European market
  - Need for an OTA performance labeling scheme
- All devices on the market are tested and comply with the essential requirements under the R&TTE Directive. Mobile phones have different power classes. Normally most phones are class 4 in GSM 900, class 1 in GSM 1800 and class 3 in UMTS and LTE.
- The report itself mentions (point 8.3): *"We note that several voluntary certification programs currently require radiated radio performance tests. The corresponding "voluntary" certifications are in fact required by wireless network operators when they purchase mobile phones for their customers. Such certification programs are offered by the Global Certification Forum, which seems to be required by many European wireless networks operators, and by CTIA – The Wireless Association, which seems to be required by many non-European wireless network operators. The existence of such programs could be used as an argument against the introduction of new mandatory technical requirements."*
- The statement used in the report that "this argument would be moot because many mobile phones are "open market" appears to manufacturers as incorrect because in reality the GCF certification scheme is being applied for vast majority of models currently on the market. The assumption that all open market phones are not GCF certified is wrong. Mystery shopping proved that most of them are GCF certified, e.g. the independent dealer chain "CarPhone House" requires GCF certification before taking a product into its portfolio.

## 6- CONCLUSIONS

- Introducing a new labelling scheme for antenna performance does not benefit consumers
  - The complexity will cause more confusion than guidance.
  - The "best" performance might not be relevant for the mobile network operator used by the particular the end-user.
- It is simply not possible to create a single performance rating (like energy labelling scheme for domestic appliances).

- Antenna performance is complex and must take into account also usage patterns of consumers.
- Experience shows that consumers are taking care of performance and vendors are well aware of this and look for best reputation.

## **7- RECOMMENDATIONS**

- As antenna performance has always to be seen in conjunction with the network/band used consumers need better information on network coverage for different usage.
- Existing voluntary schemes like the Global Certification Forum provide a solid basis for future work on industry-based solutions.

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**DIGITALEUROPE** ensures industry participation in the development and implementation of EU policies. DIGITALEUROPE's members include 56 global corporations and 35 national trade associations from across Europe. In total, 10,000 companies employing two million citizens and generating €1 trillion in revenues. Our website provides further information on our recent news and activities: <http://www.digitaleurope.org>

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