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ETNO Expert Contribution on the harmonised use of radio spectrum by equipment using ultra-wideband (UWB) technology in the European Union

Executive Summary:

ETNO members provide public high quality radio communications services. To secure the necessary long-term basis for investment and innovation, radio spectrum utilisations avoiding harmful interference are essential. Interim solutions or spectrum designations with a high risk of interference might foster some innovation in the short-term, but at the expense of irreparable drawbacks to spectrum utilisation in the long-run.

Therefore, ETNO supports the technical requirements contained in ECC/DEC/(06)04, which enable the harmonised long-term introduction of UWB devices in Europe while ensuring adequate protection of existing radio services from harmful interference. ETNO is equally in favour of their replication in a European Commission Decision pursuant to the Radio Spectrum Decision in order to implement these conditions within the EU single market.

Introduction

ETNO is pleased to response to the European Commission's call for comments and provide its views on the **harmonised use of radio spectrum by equipment using ultra-wideband (UWB) technology in the European Union**". ETNO represents the voice of 40 of Europe's largest, well established telecommunications operators in 34 countries.

ETNO members provide public high quality radio communications services to their customers. This requires that radio systems used are adequately protected from harmful interference. Public network operators extensively use the Fixed Service bands 3.4-4.2 GHz. Fixed Satellite Services are also provided in this frequency range. The 5 GHz bands, which are designated to Wireless Access Systems, are used mainly for WLAN hot spots. Furthermore, frequency bands below 5 GHz are candidates for

identification for IMT-2000/IMT-Advanced in response to WRC-07 agenda item 1.4.

ETNO members are interested in using innovative technologies to supplement services to the benefit of their customers - including UWB applications, provided they are compatible with other radio utilisations..

General Comments

In order to enable a long-term basis for investment and innovation in radio technology, radio spectrum utilisations avoiding harmful interference are essential. Interim solutions or spectrum designations with a high risk of interference might foster some innovation in the short-term, but at the expense of irreparable drawbacks to spectrum utilisations in the long-run.

UWB devices are intended to be operated on a license-exempt, non-interference and non-protected basis in frequency bands already used by conventional radio services in accordance with the ITU-R Radio Regulations.

This has led to the most comprehensive compatibility study ever performed within CEPT, with the participation of all parties concerned, UWB equipment manufacturers, current spectrum users (e.g. network operators, military) and NRA's. This study resulted in ECC/DEC/(06)04 which allows for a harmonised introduction of UWB devices without further mitigation within the frequency range 6.0-8.5 GHz. Studies are ongoing with regard to the usage of the band 3.1-4.8 GHz with adequate mitigation techniques.

The operation of UWB indoor devices on frequencies above 6 GHz provides appropriate separation from indoor radio applications as these generally use frequencies below 6 GHz, and are thus a long-term solution for co-existence.

ETNO is supportive of the ongoing studies on mitigation techniques. Moreover, ETNO supports the continuation of studies aiming to establish a regulation for specific UWB equipment providing clear rules for adequate protection of existing radio communications services in parallel to ECC/DEC/(06)04.

Commission Decision

ETNO fully supports the technical requirements contained in ECC/DEC/(06)04 which enable the harmonised long-term introduction of UWB devices in Europe, while ensuring adequate protection of existing radio services from harmful interference.

In order to implement these conditions within the EU single market, ETNO supports the replication of the technical elements of ECC/DEC/(06)04 in a Commission Decision pursuant to the Radio Spectrum Decision.

ETNO is of the opinion that a Commission Decision equal to the CEPT regulation would have a significant effect in fostering radio technology development by ensuring efficient use of spectrum not only in Europe, but even worldwide.