



## Press release

### **Protecting TV services from harmful interference from mobile telecoms terminals**

**Amsterdam, 9 September 2011** – DigiTAG, the European Broadcasting Union (EBU), BNE and ACT today jointly issued a further set of formal recommendations aimed at ensuring the adoption of technical safeguards to protect television services, delivered by the digital terrestrial TV (DTT) platform, from harmful interference.

Such interference may result from telecoms transmissions emitted from fixed base station towers known as ‘downlink interference’, or from signals emitted by mobile handsets, known as ‘uplink interference’. Earlier jointly proposed recommendations from November 2010<sup>1</sup> addressed specifically the ‘downlink interference’. In this second set of recommendations, DigiTAG, the EBU, BNE and ACT propose that additional measures should be implemented to protect DTT services from ‘uplink interference’ which may otherwise be caused by LTE/UMTS terminals such as smart phones and mobile phone handsets. These terminals are generally mobile and transmit at random times, making them significantly more difficult to trace as sources of interference than the fixed downlink emissions.

Commenting on these recommendations, Daniel Sauvet-Goichon, chairman of DigiTAG said: “Measures must be put in place to protect the quality of the viewing experience enjoyed by the many tens of millions of households across Europe who access their television via the DTT platform. It is essential for national administrations to guarantee that these viewers can continue to rely on these popular TV services without any threat of technical interference.”

Bernard Pauchon, chairman of BNE, said: “Considerable efforts are being made by the whole broadcasting industry to rearrange DTT transmission below 790MHz in order to clear the upper frequencies for other uses. European and national institutions must ensure that the users of these cleared upper frequencies do not inadvertently interfere in the broadcast services provided by Broadcast Network Operators to broadcasters and citizens.”

Lieven Vermaele, EBU Director of Technology & Development stated, “The major impact of interference from mobile communications devices on TV reception will be to confuse viewers, whose TV pictures break up or simply go black. The viewer would have no way of knowing that there was actually nothing wrong with his TV or the service. It is therefore essential, in the public interest, that great care is taken in the planning and implementation of mobile communications services in the former broadcasting band, so that the risk of such confusion is totally avoided.”

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<sup>1</sup> [http://www.digitag.org/Recommendations\\_22Nov2010.pdf](http://www.digitag.org/Recommendations_22Nov2010.pdf)

Ross Biggam, Director General of ACT, concluded: "Adequate safeguards in relation to the protection from harmful interference must be provided for, when considering plans to reallocate newly released spectrum. Robust technical studies should be conducted to demonstrate that these safeguards are effective on all existing TV products and on applications using adjacent spectrum bands for broadcast and related purposes".

The full text of the joint recommendations document is attached, and can be found on the DigiTAG website [www.digitag.org](http://www.digitag.org)

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**ACT**, the Association of Commercial Television in Europe, represents the interests of the commercial broadcasting sector in Europe. Formed in 1989, the ACT has 32 member companies licensed in 34 different European countries and distributed across 45 European markets and beyond. Our members operate several hundred free-to-air and pay-tv channels and distribute many more channels and new services. The ACT members encompass several business models: free-to-air broadcasters and pay-TV players, digital platform operators and multimedia groups. [www.acte.be](http://www.acte.be)

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**BNE**, Broadcast Networks Europe, is dedicated to maintaining an efficient and fair operational environment for Terrestrial Broadcast Network Operators with a view to ensuring that European citizens continue to receive universal access to a broad range of TV and radio programmes and content as well as other over the air services. [www.broadcast-networks.eu](http://www.broadcast-networks.eu)

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**DigiTAG**, the Digital Terrestrial TV Action Group, aims to encourage and facilitate the implementation and introduction of digital terrestrial television services using the Digital

*Video Broadcasting Project's Standards. It has around 50 members from broadcasting, network operators, regulatory, and manufacturing organisations throughout Europe and beyond. [www.digitag.org](http://www.digitag.org)*

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***The European Broadcasting Union (EBU) serves 85 national media organizations in 56 countries in and around Europe. It represents its Members and promotes the values and distinctiveness of public service media in Europe and around the world. The Eurovision and Euroradio networks deliver news, sports, events and music to EBU Members and other media organizations. Services to Members range from legal advice, technical standardization and development to coproduction and exchange of quality European content. For more information about the EBU: [www.ebu.ch](http://www.ebu.ch) and [www.eurovision.net/](http://www.eurovision.net/)***

***The EBU Technical Department is a reference point for industry professionals seeking clarity amid the hype. Its objective is to build leading communities of industry professionals and bring tangible benefits to its Members, the public service broadcasters. Through its work on HDTV; efficient production technologies; 3DTV; access services; HBB on radio and TV and loudness, the EBU is a pioneering driving force in media innovation. <http://tech.ebu.ch/>***

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# **Minimising the potential interference to Digital Terrestrial Television (DTT) broadcasting services from Mobile/Fixed Communications Networks (MFCN) operating in the 790-862 MHz frequency band**

## **2<sup>nd</sup> set of Recommendations from DigiTAG<sup>1</sup>, EBU<sup>2</sup>, BNE<sup>3</sup> and ACT<sup>4</sup> with regard to interference from User Terminals**

### **Introduction**

On 22 November 2010, DigiTAG, EBU, BNE and ACT, issued a joint Recommendation<sup>5</sup> on measures needed to provide adequate protection to DTT services from downlink interference from mobile/fixed communication networks (MFCNs)

In January 2011, DigiTAG issued a Recommendation<sup>6</sup> on the revision of ETSI standard EN 301 9082 v5.1.1 to align it with the EC Decision 2010/267/EU and the prescriptions of CEPT Report 30, in order to reduce the risk of interference from UMTS/LTE User Terminals operating in the band 790-862 MHz into DTT reception.

In the present document, DigiTAG, EBU, BNE and ACT recommend that additional measures should be implemented to protect DTT services from interference caused specifically by User Terminals (i.e. LTE/UMTS terminals). These terminals are likely to be portable or mobile and to transmit at random times, making them more difficult to trace as sources of interference.

The present document does not cover EMC issues.

### **Further recommendations**

In order to provide an appropriate level of protection to DTT services below 790 MHz with respect to emissions from MFCN User Terminals operating within the 790-862 MHz band, DigiTAG, EBU, BNE and ACT recommend that the following protection measures be applied, when possible prior to the award of the license for spectrum use:

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<sup>1</sup> Digital Terrestrial Television Action Group, [www.digitag.org](http://www.digitag.org)

<sup>2</sup> European Broadcasting Union, [www.ebu.ch](http://www.ebu.ch)

<sup>3</sup> Broadcast Networks Europe, [www.broadcast-networks.eu](http://www.broadcast-networks.eu)

<sup>4</sup> Association of Commercial Television in Europe, [www.acte.be](http://www.acte.be)

<sup>5</sup> Please see [http://www.digitag.org/Recommendations\\_22Nov2010.pdf](http://www.digitag.org/Recommendations_22Nov2010.pdf).

<sup>6</sup> Please see: [http://www.digitag.org/Recommendations\\_ETSI.PDF](http://www.digitag.org/Recommendations_ETSI.PDF)

- a) Administrations, within their scope of competence, ensure that UMTS/LTE User Terminals capable of operating in the band 790-862 MHz are compliant with the EIRP level defined in EC decision 2010/267/EU, and that their maximum out of band emission (OOB) limits are compliant with the prescriptions of CEPT Report 30 (maximum out of band emission level of -65 dBm/8 MHz, intended as EIRP);
- b) It is further recommended that the following additional measures be considered by Administrations:
- The same Entity referred to in the previous joint Recommendation, and which should be independent of the MFCN licence holders, should act as a point of contact to which cases of interference or loss of DTT service can be reported, and should gather information useful for the study of appropriate measures
  - Considering the random nature of interference from User Terminals, the above mentioned Entity should keep a record of cases of interference that are possibly caused by LTE/UMTS User Terminals, in order to gather meaningful statistics and liaise with the Body responsible for market surveillance and enforcement;
  - As in the case of interference from base stations, consumers experiencing degradation of DTT service due to interference from User Terminals should be promptly provided with adequate equipment and assistance to allow continued reception of DTT services. Such equipment may include different types of filters connected between the receiving antenna and the DTT receiver to eliminate harmful interference stemming from emissions in the frequency band 790-862 MHz. Such measures must not unduly impair reception of any DTT channel in use, up to and including channel 60. The associated costs of these necessary remedies should not be borne by broadcasters, broadcast network operators, television reception equipment manufacturers or viewers;
- c) In cases where the above measures have proven ineffective, in particular, but not limited to, cases where a significant number of complaints are recorded in a particular area, Administrations should ensure that any other relevant action to mitigate such interference is undertaken. The associated costs of these necessary remedies should not be borne by broadcasters, broadcast network operators, television reception equipment manufacturers or viewers;
- d) As noted in the previous recommendation, it is highly recommended that field trials be organised to observe the 'real world' impact of the deployment of mobile/fixed communications services versus the results of theoretical models utilised for prediction purposes. The results should be made available to interested parties in Europe.

DigiTAG, EBU, BNE and ACT members remain fully open for cooperation with Administrations, Regulators, and all parties interested in the use of the 800 MHz band, in the context of the above recommendations.