question itu-r 128-1/6

Digital three-dimensional (3D) TV broadcasting[[1]](#footnote-1)

(2008-2011)

The ITU Radiocommunication Assembly,

considering

a) that existing TV broadcasting systems do not provide complete perception of reproduced pictures as natural three-dimensional scenes;

b) that viewers’ experience of presence in reproduced pictures may be enhanced by 3D TV, which is anticipated to be an important future application of digital TV broadcasting for both conventional indoor and outdoor viewing conditions;

c) that the cinema industry is moving quickly towards production and display in 3D motion pictures;

d) that research into various applications of new technologies (for example, holographic imaging) that could be used in 3D TV broadcasting is taking place in some countries;

e) that progress in new methods of digital TV signal compression and processing is moving toward the practical realization of multifunctional 3D TV broadcasting systems;

f) that the development of uniform world standards for 3D TV systems, covering various aspects of digital TV broadcasting, would encourage adoption across the digital divide and prevent a multiplicity of incompatible standards;

g) the harmonization of broadcast and non-broadcast applications of 3D TV is desirable,

decides that the following Questions should be studied

**1** What are the user requirements for digital 3D TV broadcasting systems for both conventional indoor and outdoor viewing conditions?

**2** What are the requirements for image viewing and sound listening conditions for 3D TV?

**3** What 3D TV broadcasting systems currently exist or are being developed for the purposes of TV programme production, post-production, recording, archiving, distribution and transmission for realization of 3D TV broadcasting?

**4** What new methods of image capture and recording would be suitable for the effective representation of three-dimensional scenes?

**5** What are the possible solutions (and their limitations) for the broadcasting of 3D TV digital signals via the existing terrestrial 6, 7 and 8 MHz bandwidth channels or broadcast satellite service channels, for fixed and mobile reception?

**6** What methods for providing 3D TV broadcasts would be compatible with existing television systems?

**7** What are the digital signal compression and modulation methods that may be recommended for 3D TV broadcasting?

**8** What are the requirements for the 3D TV studio digital interfaces?

**9** What are appropriate picture and sound quality levels for various broadcast applications of 3D TV?

**10** What methodologies of subjective and objective assessment of picture and sound quality may be used in 3D TV broadcasting?

also decides

**1** that results of the above-mentioned studies should be analysed for the purpose of the preparation of new Reports and Recommendation(s);

**2** that the above-mentioned studies should be completed by 2015.

Category: S3

1. This Question should be brought to the attention of ITU-T SG 9 and ITU-R Study Group 4. [↑](#footnote-ref-1)