



90<sup>th</sup> Anniversary  
CCIR/ITU-R Study Groups  
(1927-2017)

## Radiocommunication Bureau (BR)

Administrative Circular  
CACE/814

26 June 2017

**To Administrations of Member States of the ITU, Radiocommunication Sector Members, ITU-R Associates participating in the work of the Radiocommunication Study Group 6 and ITU Academia**

**Subject: Radiocommunication Study Group 6 (Broadcasting service)**  
**– Approval of 1 new ITU-R Question**

By Administrative Circular CACE/803 of 20 April 2017, 1 draft new ITU-R Question was submitted for approval by correspondence in accordance with Resolution ITU-R 1-7 (§A2.5.2.3).

The conditions governing this procedure were met on 20 June 2017.

The text of the approved Question is attached for your reference in the Annex to this letter and will be published by the ITU.

François Rancy  
Director

**Annex: 1**

**Distribution:**

- Administrations of Member States of the ITU and Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 6
- ITU-R Associates participating in the work of Radiocommunication Study Group 6
- ITU Academia
- Chairmen and Vice-Chairmen of Radiocommunication Study Groups
- Chairman and Vice-Chairmen of the Conference Preparatory Meeting
- Members of the Radio Regulations Board
- Secretary-General of the ITU, Director of the Telecommunication Standardization Bureau, Director of the Telecommunication Development Bureau

## Annex

### QUESTION ITU-R 143/6

#### **Advanced Immersive Audio-Visual Systems for Programme Production and Exchange for Broadcasting**

(2017)

The ITU Radiocommunication Assembly,

*considering*

- a)* that Virtual Reality, 360° and other immersive media technologies have caught the attention of the content providers, audiences, and the associated consumer technology vendors;
- b)* that television and radio programme makers and others are exploring advanced immersive systems to enhance the audiences experience of their content;
- c)* that currently immersive media content is usually acquired and produced to the requirements of specific delivery or distribution technologies;
- d)* that there are currently no worldwide standards or recommended practices for production, mastering and exchange of Virtual Reality, 360° and other immersive television programmes;
- e)* that likewise there are currently no worldwide standards or recommended practices for distribution and emission of Virtual Reality, 360° and other immersive television programmes;
- f)* that there are no agreed measures or means to assess the quality of the images and associated audio of advanced immersive audio-visual content;
- g)* that there are no criteria for assessing if the “Quality of Experience” expectations of the intended audience of advanced immersive audio-visual content, are being met;
- h)* that broadcasters are distributing programme content to audiences via an increasing number of interactive delivery platforms;
- i)* that viewers have documented an experience of eye fatigue, dizziness, or nausea in viewing of some Virtual Reality or Augmented Reality content, and device performance parameters, viewing time, and content type may all influence these undesired reactions,

*decides* that the following Questions should be studied

- 1 What are the appropriate parameters for production and international exchange of advanced immersive audio-visual content?
- 2 What viewing and listening conditions including audio-visual displays should be assumed for viewing of advanced immersive audio-visual content in production and consumer viewing?

- 3 What file formats and wrappers are appropriate for the mastering, exchanging, and archiving of advanced immersive audio-visual content?
- 4 What assessment techniques and criteria are required in order to assess accurately the quality of advanced immersive audio-visual content?
- 5 What criteria are required to assess if the “Quality of Experience” expectations of the intended audience of advanced immersive audio-visual content, are being met?
- 6 What metadata is required to allow accurate exchange and reproduction of advanced immersive audio-visual content?
- 7 How do device performance parameters interact with production decisions to avoid or minimize eye fatigue, dizziness, or nausea in audiences when viewing advanced immersive audio-visual content?

*further decides*

- 1 that the results of the above studies should be included in Recommendation(s) and Reports;
- 2 that the above studies should be completed by 2019.

Category: S2

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