QUESTION ITU-R 45-6/6[[1]](#footnote-1), [[2]](#footnote-2)

Broadcasting of multimedia and data applications

(2003-2005-2009-2010-2012-2014-2019)

The ITU Radiocommunication Assembly,

*considering*

*a)* that digital television and sound broadcasting systems have been implemented in many countries;

*b)* that multimedia and data broadcasting services have been introduced in many countries;

*c)* that mobile radiocommunication systems with advanced information technologies have been implemented in many countries;

*d)* that reception of digital broadcasting services is possible both inside and outside the home with fixed receivers such as TV sets in the living room, as well as handheld/portable/vehicular receivers;

*e)* that the characteristics of mobile reception and stationary reception are quite different;

*f)* that the display sizes and receiver capabilities may be different between handheld/portable/vehicular receivers and fixed receivers;

*g)* that optical head-mounted displays (e.g. “video glasses”)[[3]](#footnote-3) have been implemented, for the reception of TV broadcasting programmes and multimedia information;

*h)* that the multiscreen/multi-image technology is used in the broadcasting and multimedia information applications providing simultaneous presentation of different applications and/or images;

*i)* that the format of the transmitted information should be such that the content can be displayed intelligibly on as many types of screens and terminals as possible;

*j)* the need for interoperability between the telecommunication services and interactive digital broadcasting services;

*k)* the need to harmonize technical methods used to implement content protection and conditional access;

*l)* that digital multimedia video information systems for presentation of various kinds of multimedia information applicable to programmes such as dramas, plays, sporting events, concerts, cultural events, etc. are widespread, and those systems are being installed for collective viewing,

decides that the following Questions should be studied

1 What are the user requirements for broadcasting of multimedia and data applications taking into account of various types of displays:

– for mobile/portable reception;

– for stationary reception?

2 What are the user requirements for digital multimedia video information systems with respect to the actual format of the video signal (for example, SDTV, HDTV, UHDTV, HDR-TV, VR/360°, etc.)?

3 What characteristics are required for service assembly and access for broadcasting of multimedia and data applications for mobile reception and for stationary reception?

4 What characteristics are required for service assembly and access for the digital multimedia video information systems for collective indoor and outdoor viewing?

5 What data transport protocol(s) is (are) most suited to deliver broadcast multimedia and data contents to handheld, portable and vehicular receivers and to fixed receivers?

6 What solutions can be adopted to ensure the interoperability between the telecommunication services and interactive digital broadcasting services?

*further decides*

1 that the results of the above studies should be included in (a) Report(s) and/or Recommendation(s);

2 that the above studies should be completed by 2027.

Category: S2

1. This Question should be brought to the attention of ITU-R Study Group 5 and ITU-T Study Group 16. [↑](#footnote-ref-1)
2. In the year 2023, Radiocommunication Study Group 6 extended the completion date of studies for this Question. [↑](#footnote-ref-2)
3. The personal displays utilizing optical glasses can be used with the PCs, smartphones and other devices. They can be used for the reception of TV broadcasting programmes and personal multimedia information at any time, at any place and in motion. [↑](#footnote-ref-3)