

QUESTION ITU-R 15-2/6¹

Large screen digital imagery (LSDI)²

(2002-2003-2007)

The ITU Radiocommunications Assembly,

considering

- a) that new very high resolution, LSDI are being introduced in some countries, whereby dramas, plays, sporting events, concerts, cultural events, etc., photographed electronically or on film, can be delivered, and exhibited in high resolution quality in theatres, halls, and other venues equipped with digital imaging capabilities;
- b) that such practice has the potential to produce excellent picture quality, equal or superior to that available heretofore, and opens the possibility for program delivery in various digital forms for exhibition to large audiences;
- c) that such practice is reported to also offer significant benefits in terms of a faster, lower cost production/postproduction and distribution, including to smaller, less-developed markets;
- d) that high resolution, bright, large screen projection equipment is available from several international manufacturers;
- e) that it may be beneficial to develop a uniform or compatible hierarchy of technical standards for program recording, mastering³, exchange, delivery and exhibition, harmonized with those established for the recording and mastering, exchange and delivery of programs for other applications, since this can ease international program exchange;
- f) that the ITU-R has been studying extremely high resolution imagery under Question ITU-R 40/6 based on the concept of a tiered or hierarchical approach;
- g) that the introduction of digital technologies results in the converging of broadcast and telecommunication data channels, so that the secondary distribution of digital programs now also foresees the possible distribution of digital packetized data, in real-time and non-real-time, program-related and non-program-related, to the general public as well as to individual recipients or groups of recipients;

¹ This Question should be brought to the attention of Working Parties 6B, 6E, 6M, 6Q and 6S.

² Large Screen Digital Imagery is a family of digital imagery systems applicable to programs such as dramas, plays, sporting events, concerts, cultural events, etc., from capture to large screen presentation in high resolution quality in appropriately equipped theatres, halls, and other venues.

³ The term “mastering” indicates the set of those technical activities that lead to the finished edited master of a program, which normally materializes the creative intent of its authors (see for instance Rec. ITU-R BR.1292).



- h) that the definition of broadcasting included in the ITU Constitution (CS/A.1010)⁴ from the regulatory point of view, makes no distinction between real-time and non-real-time service delivery, nor between interactive and non-interactive programming, nor among sound, television or other types of content, nor among analog, digital or digital packetized delivery;
- j) that various aspects of LSDI are within the scope of Study Group 6 as defined in Resolution ITU-R 4-4⁵, e.g.:
- acquisition, production, postproduction and mastering;
 - storage and transfer to and from film for international exchange;
 - encoding, encryption and assembling with control and metadata;
 - delivery by terrestrial or satellite means;
 - quality assessments of the proposed technical solutions;
- k) that some other aspects of LSDI are in the scope of ITU-T Study Group 9; the IEC and ISO; other international or regional standardizing bodies as well as other relevant fora;
- l) that, in view of its scope, Study Group 6 is well placed to act as a focal point to coordinate relevant studies among the various concerned ITU and non-ITU bodies;
- m) that studies on LSDI are important both for the theatre and for broadcasting, and the opening of some LSDI operational services makes it urgent for the ITU-R to initiate those studies;
- n) that although studies are currently being carried out in various countries on all aspects of LSDI, those specifically related to motion pictures⁶ are not yet fully completed,

decides that the following Question should be studied

- 1 What are the picture and sound performance goals, in subjective and objective terms, of the LSDI applications that require the use of the higher members of the expanded LSDI hierarchy of image systems?
- 2 What methods are appropriate for the subjective and objective assessment of the sound and image quality of LSDI systems including those intended for applications that require the use of the higher members of the expanded LSDI hierarchy of image systems?

⁴ The definition of broadcasting given in the ITU Constitution (CS/A.1010) is broadcasting service: A radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmission.

This definition appears also as 1.38 in Art. 1 of the ITU Radio Regulations, and the scope of ITU-R Study Group 6 in Resolution ITU-R 4-4 provides details on it.

⁵ Resolution ITU-R 4-4 – Structure of Radiocommunication Study Groups.

⁶ The term “motion pictures” (also called movies, features, etc.), is used to indicate content that is intended for first release in a cinema theatre setting.