QUESTION ITU-R 37-6/5[[1]](#footnote-1)

Digital land mobile systems for specific applications

(1978-1982-1992-1995-1997-2007-2012)

The ITU Radiocommunication Assembly,

considering

*a)* that the number of radio stations in the land mobile service is increasing very rapidly;

*b)* that in several geographical areas the growing demand for radio channels in the land mobile service has resulted in a serious congestion in the frequency bands allocated to this service;

*c)* that in order to alleviate this congestion as well as that expected in the future, it is desirable for land mobile services to employ spectrum-saving techniques;

*d)* that improved spectrum efficiency might be achieved, taking into account essential system characteristics like traffic density, grade of service, etc. and costs:

– by making an increased number of traffic channels available within a given bandwidth;

– by optimizing the size of base station coverage areas, to the traffic demand;

– by combining these techniques and others;

*e)* that the digital technology applied in such systems may require channel widths other than those used in the existing land mobile services;

*f)* that systems based on digital technology offer a high degree of privacy and security;

*g)* that these systems may provide capabilities required by specific user groups, of applications such as, private mobile radio, public access mobile radio, utilities, e-Health, public protection and disaster relief, and machine-to-machine communications, etc.;

*h)* that, particularly for systems operating in border areas of neighbouring countries, it is desirable to reach international agreement on certain system characteristics in order to come to maximum usage flexibility,

decides that the following Questions should be studied

1 What are, with regard to frequency efficiency, the optimum characteristics of these systems, taking into account factors like needed system capacity to serve a large number of users, base station coverage area, complexity of equipment, propagation factors and performance objectives?

2 How can these systems meet the user demand and what are the operational requirements?

3 What are the capabilities and facilities offered by these systems that fulfil the requirements of specific user groups, of applications such as private mobile radio, public access mobile radio, utilities, e-Health, public protection and disaster relief, and machine-to-machine communications, etc.?

4 What are the system parameters on which international agreement is desirable to ensure compatibility between systems and/or operation of differing systems in neighbouring coverage areas?

further decides

1 that the results of the above studies should be included in one or more Recommendations, Reports or Handbooks;

2 that the above studies should be completed by 2027.

Category: S2

1. In the year 2019, Radiocommunication Study Group 5 extended the completion date of studies for this Question. [↑](#footnote-ref-1)