

# EUROPEAN RADIOCOMMUNICATIONS COMMITTEE

ERC Decision  
of 1 June 1999

on the designation of the harmonised frequency band  
40.5 to 43.5 GHz for the introduction of  
Multimedia Wireless Systems (MWS),  
including Multipoint Video Distribution Systems (MVDS)

(ERC/DEC/(99)15)





## EXPLANATORY MEMORANDUM

### 1 INTRODUCTION

In 1996, the ERC adopted ERC/DEC/(96)05, "on the harmonised frequency band to be designated for the introduction of the Multipoint Video Distribution Systems (MVDS)". This Decision harmonised the band 40.5 - 42.5 GHz for the distribution of television programmes, commonly termed Multipoint Video Distribution Systems (MVDS). A typical MVDS consisted of a point-to-multipoint distribution system covering subscribers' premises within particular areas or "cells". The system was used as an alternative to cable television distribution networks or as an extension to a cable network and additionally allowed a small degree of interactivity.

In 1998, the ERC recognised a need to take into account the requirements of MWS and to encourage the use of digital technologies and so initiated the revision of ERC/DEC/(96)05. MWS systems will utilise several bands. This new Decision addresses the band 40.5 - 43.5 GHz.

For the purpose of this Decision, Multimedia Wireless Systems are defined as terrestrial multipoint<sup>1</sup> systems which have their origin in telecommunication and/or broadcasting, including MVDS, and which provide fixed wireless access direct to the end user for multimedia services. These MWS systems may offer different degrees of interactivity.

### 2 BACKGROUND

In 1996, the ERC agreed Decision ERC/DEC/(96)05, which identified frequency bands for MVDS, providing a viable means of local delivery of direct-to-home television programmes to geographic areas which were uneconomic to cable, or to provide a broadcasting service where conventional systems were deficient. It was also to be used to support the development of cable network and to provide additional "off air" programming. After careful consideration of a number of bands including 29, 38, 42 and 60 GHz, the ERC published Recommendation T/R52-01 which recommends that the band 40.5-42.5 GHz be used for MVDS. Subsequently the ERC Report 25 endorsed this choice. In ITU Region 1 the band has also been allocated to the broadcasting-satellite, broadcasting and fixed services.

Subsequent development of the market for interactive multimedia services has led to demand for greater provision of return-path communication, over and above that originally provided by the first version of the original Decision. The potential market for these systems has also broadened beyond the original idea of distributing television services, to include, inter alia, broadband data services, video conferencing, video-on-demand, etc.

### 3 REQUIREMENT FOR AN ERC DECISION

The allocation of radio frequencies in CEPT countries is laid down by law, regulation or administrative action. The ERC recognises that for MWS to be introduced successfully throughout Europe, manufacturers and operators must be given the confidence to make the necessary investment in the new pan-European radio communications systems and services. Commitment by CEPT countries to implement an ERC Decision will provide a clear indication that the required frequency bands will be made available on time and on a CEPT-wide basis. The Decision also provides for CEPT member countries to introduce into their national regime, the ETSI standards and the CEPT mechanism for enabling free circulation.

The ERC Rules of Procedure state that if an ERC Decision is amended, it must be replaced and the old Decision abrogated. Therefore this Decision dictates abrogation of ERC/DEC/(96)05.

---

<sup>1</sup> See ITU document 9/79, 15 October 98

**ERC Decision  
of 1 June 1999**

**on the designation of the harmonised frequency band 40.5 to 43.5 GHz  
for the introduction of Multimedia Wireless Systems (MWS)  
including Multipoint Video Distribution Systems (MVDS)**

**(ERC/DEC/(99)15)**

The European Conference of Postal and Telecommunications Administrations,

*considering*

- a) that the band 40.5-42.5 GHz has been allocated by the ITU, in Region 1, on a co-primary basis to the broadcasting, broadcasting-satellite and fixed services;
- b) that the band 42.5-43.5 GHz has been allocated by the ITU, in Region 1, on a co-primary basis to the Fixed, Fixed-Satellite, Mobile (excluding aeronautical mobile) and Radio Astronomy services;
- c) that in designating the band 40.5-42.5 GHz to MVDS, in the Broadcasting Service, the ERC has given a clear priority to terrestrial services;
- d) that in the band 42.5-43.5 GHz, sharing between the Radio Astronomy service and MWS is feasible on a geographical basis;
- e) that the band 40.5-43.5 GHz should provide a sufficient amount of spectrum to facilitate Multimedia Wireless Systems for a number of competing operators;
- f) that technical convergence of MWS applications could be better facilitated by using digital technology;
- g) the digital technology being developed has the potential to increase the range of services that can be carried in a spectrally efficient manner;
- h) that MWS can offer a variety of user bit rates including those from Primary Rate (144 kbit/s) up to as high as 25 Mbit/s, or more, in flexible bandwidth arrangements;
- i) that the return channels for MWS could if necessary also be accommodated in other bands.

DECIDES

1. that for the purpose of this Decision Multimedia Wireless Systems (MWS) shall mean terrestrial multipoint systems which have their origin in telecommunication and/or broadcasting, including MVDS, and which provide fixed wireless access direct to the end user for multimedia services, and comply with the relevant European Telecommunications Standards. These MWS systems may offer different degrees of interactivity.
2. to designate the frequency band 40.5-43.5 GHz for MWS as from 4 June 1999.
3. that all MWS introduced in this band after the date-of-adoption of this Decision shall be digital;
4. that the CEPT Member Administrations shall communicate the national measures implementing this Decision to the ERC Chairman and the ERO when the Decision is nationally implemented.

Note:

Please check the ERO web site ( [www.ero.dk](http://www.ero.dk) ) under "Documentation / Implementation" for the up to date position on the implementation of this and other ERC Decisions..