

Outcome of the CEPT/CCH/GSM meeting in Funchal 16-20 February 1987 concerning the technical standard for a pan European digital cellular radio system

1. The meeting of the CEPT/CCH/GSM in Madeira 16-20 February 1987 had to take decisions on a number of important points concerning the technical standard for a pan European digital cellular radio system.
2. GSM agreed a set of conclusions of the extensive technical studies and practical trials carried out by experts participating in the work of GSM. These conclusions are given in Table 1 attached.
3. GSM has agreed that digital cellular radio has substantial advantages over analogue cellular radio in meeting the minimum requirements of a pan European cellular radio systems and should be adopted for the CEPT standard.
4. GSM has agreed that Time Division Multiple Access (TDMA) has substantial advantages over Frequency Division Multiple (FDMA) and should be adopted for the CEPT standard.
5. Thirteen administrations agreed that Narrowband TDMA has substantial advantages over Wideband TDMA and therefore should be adopted for the CEPT standard. France and Germany could not join this agreement at this stage having expressed a preference for Wideband TDMA. The GSM invited France and Germany to reconsider their position and to inform all CEPT administrations by telex by 16<sup>th</sup> March 1987.
6. GSM agreed a set of working assumptions for the particular characteristics of a narrowband TDMA pan European digital cellular radio system. These working assumptions will

be used in a manner which has been agreed by GSM and is described in document GSM 45/87 for the purpose of optimisation and specification of detailed parameters.

~~mentioned above is summarised.~~

7. The ~~set of working assumptions~~ <sup>F</sup> for the air interface of Euro-pean digital cellular radio system summarises in Annex 1

8. GSM has decided that every effort will now be made to complete sufficient detailed specification such that those CEPT Administration who so wish can commence procurement action at the end of 1987 in order to allow systems to be in operation by 1991.

For a version for European digital  
cellular <sup>radio</sup> system is summarised  
in Annex 1

TABLE 1 - Conclusions of the technical studies regarding relative advantages of the various radio sub system alternatives for a pan European cellular radio system against major factors used as criteria in the evaluation.

	Analogue/Digital	FDMA/TDMA	NB/WB TDMA
Speech Quality	Comparable	Comparable	Comparable
Spectrum Efficiency	Comparable	Comparable	NB
Infrastructure & Mobile Cost	Digital	TDMA	NB
HP Viability	Digital	TDMA	NB
Flexibility for New Services	Digital	TDMA	Comparable
Risk	Analogue	FDMA	NB
Spectrum Management	Comparable	FDMA	NB

abbreviations:    FDMA    Frequency Division Multiple Access  
                      TDMA    Time Division Multiple Access  
                      NB        Narrowband  
                      WB        Wideband  
                      HP        Handportable Mobile Terminal Equipment

CEPT /CCH / GSM

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- Set of working assumptions for a narrow band TDMA pan European digital cellular radio system.

Application - For eventual inclusion in REC GSM 11.10 and GSM 11.20 when stabilised.

1. Mobile Stations

2. Base Stations