

Spectrum for RMR

ANFR's view

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CEPT is working on RMR



FRMCS project \Rightarrow CEPT launched a dedicated project team in February 2017
 \rightarrow *many technical studies ongoing*

EC mandate on FRMCS in July 2018 \Rightarrow
CEPT's answer for December 2020

Risk of 1 cycle delay (i.e. March 2021)

\rightarrow CEPT will provide the harmonised technical conditions for RMR to the EC

3 bands investigated

874,4-880 MHz / 919,4-925 MHz

+ 1900-1920 MHz
(10 MHz in the lower part)

XOR 2290-2300 MHz
(seen as a backup solution by France)

Main technical challenges for RMR

920 MHz:

- ✧ Default BS EIRP + self-coordination when required
- ✧ Need for the cab-radio to filter both MNO above 925 MHz and RFID 4W interrogators below 918,9 MHz
Involvement of radio module manufacturers required!!!
- ✧ A guard-band may be required with other SRD below 919,4 MHz

1900 MHz:

- ✧ Coexistence with governmental drones below 1900 MHz: a guard-band may be required for filtering

2290-2300 MHz:

- ✧ Impact of adjacent telemetry and airborne video PMSE on FRMCS ?
- ✧ Feasibility of 31 dBm cab-radio ?

Spectrum for RMR



✧ 874,4-880 MHz / 919,4-925 MHz

✧ 10 MHz in 1900-1911 MHz

✧ New harmonised standards for GSM-R and FRMCS cab-radios
required robustness to adjacent applications

✧ Perpetual migration expected
due to shorter life cycle of new 3GPP generations

⇒ start with 5G/NR

⇒ full power required in the complementary band

✧ TDD synchronisation across Europe

