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| Working Group FM | FM(13)116  |
| 77th Meeting |  |
| Amsterdam, 20 – 24 May 2013 |  |
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**1 Opening of the Meeting**

1. The 77th meeting of the WG FM was opened by Mr. Sergey Pastukh (RUS). He welcomed the participants to the meeting and thanked the Administration of the Netherlands for hosting the meeting.
2. The meeting was made aware of the terribly sad news regarding the passing of Mr Steve Bond (Ofcom UK), who died in his sleep on Sunday 19 May 2013.
3. Steve had been at Ofcom since the beginning, having joined from the UK Radiocommunications Agency, and for more than a decade had worked in the international team on spectrum issues.
4. For the past five years, he had led Ofcom’s international engagement on spectrum matters with key global institutions, including the ITU and CEPT, where he had been instrumental in overseeing UK and European preparations for World Radio Conferences.
5. Steve Bond’s work took him to all corners of the world, where he was incredibly well known and hugely respected.
6. Steve Bond’s passing was completely unexpected and came not long after he had been elected to lead the European preparations for the next World Radio Conference, which will be held in 2015.
7. The WG FM chairman asked the delegates for a minute of silence for Steve Bond.
8. Mr. John Derksen, Deputy Director of the Radiocommunications Agency of the Netherlands and Head of the Spectrum management Department, welcomed the participants to the meeting in the beautiful city of Amsterdam. He stated that a parallel could be drawn between spectrum management, which requires dedication, creativity and which is solution driven and the (re)farming of flowers, for which the Netherlands also has built up required experience. He also referred to the importance of good spectrum management during major events, which was of great help during the inauguration of King Willem Alexander in the Netherlands on the 30th April this year. Finally Mr. John Derksen wished the participants a fruitful meeting and an enjoyable stay in Amsterdam.
9. The meeting was attended by 103 delegates from 30 CEPT Administrations, EC, ECO, ETSI and 8 international organisations. The list of participants is in Annex 02.
10. The list of documents is in Annex 03. The list of abbreviations used in these Minutes is in Annex 04. The Terms of Reference for the WG FM Project Teams, the SRD/MG and the EFIS/MG, the WG FM Forum Groups as well as the working methods for the Civil/Military meeting are provided in Annex 05.

**2. Adoption of the Agenda, Schedule of Work**

1. The WG FM Chairman introduced an updated version of the draft agenda. The approved Agenda of the 77th WG FM meeting is contained in Annex 01 of these Minutes.

**3 Report from ECC Plenary**

1. The WG FM Secretary presented the results of the 33rd ECC Meeting, Bratislava, Slovak Republic, 5-8 March 2013(Doc. FM(13)105) as well as issues related to WG FM activity. Most of the issues are covered by the Agenda items of this WG FM meeting and are reflected in the Minutes under the corresponding sections.
2. The main decisions of the ECC with regard to WG FM activities are provided below:
* ECC approved for publication 4 ECC Decisions:
* Amended ECC Decision (02)05 on the designation and availability of frequency bands for railway purposes in the 876-880 MHz and 921-925 MHz bands.
* Amended ECC Decision (05)01 on the use of the band 27.5-29.5 GHz by the Fixed Service and uncoordinated Earth stations of the Fixed-Satellite Service (Earth-to-space).
* Amended ECC Decision (05)08 on the availability of frequency bands for high density applications in the Fixed-Satellite Service (space-to-Earth and Earth-to-space).
* ECC Decision (13)01 on the harmonised use, free circulation and exemption from individual licensing of Earth Stations on Mobile Platforms (ESOMPs) within the frequency bands 17.3-20.2 GHz and 27.5-30.0 GHz.
* ECC approved for publication and submission to the EC:
* CEPT Report 44 in response to the EC Permanent Mandate on the ”Annual update of the technical annex of the Commission Decision on the technical harmonisation of radio spectrum for use by short range devices” (fifth update).
* CEPT Report 46 to the European Commission in response to the Mandate on inclusion of information on rights of use for all uses of spectrum between 400 MHz and 6 GHz (Tasks 1 to 3 in response to the EC Mandate on EFIS).
* CEPT Report 50 to the European Commission in response to part A of the mandate “On technical conditions regarding spectrum harmonisation options for wireless radio microphones and cordless video-cameras (PMSE equipment)”.
* ECC approved for Public Consultation and for submission to the EC:
* Draft CEPT Report 45 to the European Commission in response to the Fifth Mandate to CEPT on ultra-wideband technology to clarify the technical parameters in view of a potential update of Commission Decision 2007/131/EC.
* Draft CEPT Report 47 to the European Commission in response to the Mandate on inclusion of information on rights of use for all uses of spectrum between 400 MHz and 6 GHz (Tasks 4 and 5 in response to the EC Mandate on EFIS).
1. The meeting took onboard the results of the 33rd ECC meeting.

**4 Work Items in Progress within PTs and FGs**

***4.1 FM PT 22 (Monitoring)***

**4.1.1 Progress Report**

1. Mr. Ralf Trautmann (D), the Chairman of FM PT 22 presented Document FM(13)083, the progress report of the Project Team. Amongst other items, Mr. Ralf Trautmann (D) highlighted the large number of delegates/administrations participating in the last meeting of FM PT 22, the finalisation of a draft new annex to ECC Recommendation (11)06 on block edge mask compliance measurements, the finalisation of the work on a CEPT contribution concerning the revision of Recommendation ITU-R SM.575 in WP1C on protection distances between fixed monitoring sites and transmitters as well as the monitoring campaigns on request of the Maritime Forum Group and CPG PTC.
2. The meeting noted the progress report.
3. Sweden introduced document FM(13)079, the proposal to convert FM PT 22 into a Forum Group. This proposal was supported by Ireland. The administrations of Lithuania, Austria, Finland, Estonia, France, Portugal, The Netherlands, Czech Republic, Ukraine, Hungary, Latvia, Russian Federation, Italy, Norway, Switzerland and Romania are in favour to maintain the current structure. The UK administration proposed to observe the consequences of the transformation from FM PT 46 into the Maritime Forum Group as in the progress report to this meeting. The meeting concluded not to modify the structure of FM PT 22.

**4.1.2 BEM compliance measurements**

1. Mr. Ralf Trautmann (D), presented Document FM(13)081Rev1, the draft amended ECC Recommendation (11)06 on BEM compliance measurements.
2. The meeting approved the document for public consultation as in Annex 06 of these Minutes.

**4.1.3 HF monitoring campaign**

1. The HF background monitoring campaign is on-going. FM PT 22 did not submit new information on this issue.

**4.1.4 Frequency management during major events**

1. As mentioned in Document FM(13)083 it is expected to finalise the work on the revision of ECC Report 044 on frequency management during major events at the next meeting of FM PT 22 or one meeting thereafter.

**4.1.5 Radio Interference Statistics**

1. Mr. Ralf Trautmann (D), presented the conclusions of FM PT 22 regarding the ECO summary of the responses to the WG FM questionnaire on interference statistics in Annex 2 to Document FM(13)83. He proposed repeating the questionnaire on an annual basis to see the changes in the interference statistics which may be more informative than the figures themselves. He also identified a few items which should be improved before publishing the questionnaire again.
2. Mr. Thomas Weber (ECO) pointed to Document FM(13)66 Rev1 containing the answers of 33 countries now. He encouraged administrations who have not responded to the questionnaire so far to forward their answers too.
3. The meeting endorsed the course of action as proposed by FM PT 22.

***4.2 FM PT 44 (Satellite issues)***

**4.2.1 Progress Report**

1. Mr. Thomas Weber (ECO), on behalf of the FM PT 44 Chairman, presented the progress report of FM PT 44 as in document FM(13)096.
2. In relation to health and safety issues reported in the progress report, WG FM decided that FM PT44 should not consider this as a subject under the ECC mandate/scope of work.
3. ECC requested that FM PT44 deals with the issue on how to implement the requirement to limit the aggregate off-axis EIRP limits of ESOMPs to protect other FSS satellites in orbit. WG FM noted the results of the FM PT44 considerations are now available and concluded that FM PT44 has fulfilled the request from ECC.
4. Mr. Thomas Weber reported that FM PT44 also discusses a carrier-identification (CID), whereby satellite transmissions include specific information about the source earth station operator to assist in the speedy resolution of interference to other satellite links. In principle CID will allow satellite operators to quickly identify the interference source and to make arrangements with the earth station operator to resolve the interference. WG FM noted that FM PT44 will have a half day workshop at its next meeting. No official work item was considered necessary at this early stage of this activity.
5. Germany raised in FM PT44 its concern that until Iridium NEXT (the name of the next generation constellation of Iridium) is fully deployed, the situation on the interference to RAS sites will only slowly improve as the new constellation is being deployed (hopefully completing the deployment in 2016). Several Administrations in FM PT44 agreed to ask Iridium to make a presentation at the next FM PT44 meeting and make WG FM aware of this as it may also be useful that such presentation is made at the next WGFM meeting in September. WG FM agreed to this suggestion and tasked the FM PT44 chairman to contact Iridium to initiate preparations for presentation at the next FM PT44 and WGFM meetings.
6. CRAF informed the meeting about a new Iridium filing under ITU-R Res. 739 and stated that the resolves of ITU-R Res. 739 should be followed by Iridium.

**4.2.2 Ka band, 17.7-19.7 GHz**

1. WG FM considered the FM PT44 work on the review of the regulatory regime applying to FSS uncoordinated receive Earth Stations operating in the Fixed Satellite Service in the band 17.7-19.7 GHz without claiming protection from stations of FS. Mr Weber outlined the spectrum management options under consideration in FM PT44 for improved sharing possibilities between FS and FSS. In this regard, FM PT44 proposed to WG FM to adopt a questionnaire to CEPT administrations to collect precise information about the FS duplex gap and whether ATPC is implemented for FS applications in 17.7-19.7 GHz. WG FM approved the questionnaire as in Annex 07 of these Minutes.
2. WG FM agreed to ask ECC for permission to allow starting the revision of ECC/DEC(00)07 in order to include provisions for individual license exemption and free circulation of uncoordinated receive FSS earth stations in the band 17.7-19.7 GHz and other potential modifications that may result from FM PT44 on-going activities. The revision of ECC/DEC(00)07 must not lead to constraints on FS, other than those defined by the current ECC/DEC(00)07.
3. WG FM noted the liaison statement included in FM(13)096 Annex 2 from FM PT44 to FM PT53 in Annex 2. Within the options under discussion in FM PT44 the possibility was raised to rely also on the use of FS databases to self-manage the use of frequency bands in a country and thus the assignment of frequencies to FSS stations so that interference is avoided to FSS receivers. Therefore, FM PT44 could possibly benefit from the generic results of FM PT53 considerations on the regulatory framework for geo-location database approaches.
4. Italy expressed the opinion that new FS/FSS sharing possibilities in 17.7-19.7 GHz should be effective and should not impose inappropriate overload to the administrations activities.
5. ECO pointed out that the options under study in FM PT44 target improved FS/FSS sharing opportunities.
6. France expressed the view that the benefits and efforts in relation to these sharing opportunities should be judged when results of the work are available. The work in FM PT44 should therefore not be limited a priori regarding these options.
7. WG FM agreed to not limiting the work in FM PT44 with regard to the sharing options under investigation. However, FM PT44 is requested to duly take into account the additional necessary administrative efforts when considering these sharing options.
8. Italy underlined that current FSS deployment in the frequency band 17.7-19.7 GHz was considerably lower than expected in the year 2000.
9. Mr Thomas Weber (ECO) explained that there is now a considerable number of Ka-Band satellites under construction or put into operation.

***4.3 FM PT 48 (Broadband DA2GC)***

1. The 8th meeting of FM PT 48 was held from 7-8 May 2013 at the ECO in Copenhagen/Denmark.

**4.3.1 Progress Report**

1. Mr. Thomas Weilacher (D) introduced the progress report (FM(13)091).
2. ITU-R WP 5A is currently working on a Preliminary Draft New Report ITU-R M.[LMS.ATG] on Systems for public mobile communications with aircraft. From FM PT48 point of view it would be advantageous to submit a contribution regarding Broadband DA2GC from CEPT side to ITU-R WP 5A after a stable position regarding the usability of the frequency band(s), which are still under discussion, would have been achieved. This could possibly be done for the WP 5A meeting in November 2013.
3. FM PT48 had also noted the recent developments on DA2GC in North America, especially the extension of the current DA2GC system at 800 MHz by 2 x 1 MHz and the considerations regarding the 14 GHz band had been of interest (see also agenda item 8.1 below).
4. FM PT48 had provided a contribution on the draft Interim Report (section 3.1) to the Correspondence Group on the unpaired 2 GHz bands (see also agenda item 5.6 below).
5. FM PT48 had provided an overview on general regulatory aspects for Broadband DA2GC to the WG FM meeting (Annex 4 to FM(13)091). The decisions on the regulatory aspects will also have an impact on the frame conditions for the on-going compatibility and sharing studies.
6. WG FM confirmed its previous view that for Broadband DA2GC a primary allocation to the mobile service or to the aeronautical mobile service is required.
7. Furthermore FM PT48 provided a view on the appropriate authorisation for Broadband DA2GC based on the terminology as defined in ECC Report 132. After some discussion, the WG FM meeting decided that a final conclusion on the authorisation related matters can only be drawn after the responses to the questionnaire (see agenda item 4.3.3) will have been analysed.
8. Further aspects were raised by FM PT48 (section 3 in Annex 4 to FM(13)091).
9. It was proposed that a solution for the Broadband DA2GC arrangement (FL/RL) in the unpaired 2 GHz bands should be achieved in order to ease sharing with other candidate applications, e.g. with PMSE, taking also into account the results of the adjacent band compatibility studies.
10. During the discussion, the meeting was made aware of the fact that the various options for FDD and TDD arrangements which are still under discussion create a challenge for finding a common sharing solution with other radio applications, also addressed by the EC Mandate.
11. WG FM decided that the on-going compatibility and sharing studies regarding the unpaired 2 GHz bands (1900-1920 MHz, 2010-2025 MHz) should only take into account the two options (FL and RL) in the lower band, and also the two options (FL and RL) in the upper band. This will inherently provide results for both the FDD and TDD options. However, the possibility of TDD in the band 2010-2025 MHz should not further be studied. This approach would also ease the sharing with other candidate applications, e.g. with PMSE, which is necessary in meeting the specific requirements in response to the Commission Mandate.
12. The question of a technology neutral approach had been discussed by FM PT48 and was also raised by WG SE (FM(13)111).
13. WG FM decided that a technology neutral approach for a future possible regulatory regime for Broadband DA2GC should be achieved, for the unpaired 2 GHz bands as well as for the 5.8 GHz band (5855-5875 MHz). Therefore WG FM is looking for results from WG SE which are as technology neutral as possible, noting the specific scenario limitations highlighted above as is required in response to the Commission Mandate, and which are as system independent as possible.
14. A liaison statement was agreed by WG FM and sent to WG SE as in Annex 08 of these Minutes.
15. WG FM also confirmed that an earlier solution in one of the ranges (unpaired 2 GHz bands or 5.8 GHz) should not compromise or prejudice the outstanding work on the other frequency range and shared use of the bands has to be considered in both frequency ranges.

**4.3.2 Draft ECC Report**

1. The FM PT48 Chairman introduced the latest version of the draft ECC Report on Broadband DA2GC (FM(13) 093).
2. The on-going activities regarding the draft ECC Report were noted and the general way forward was supported by WG FM.

**4.3.3 Questionnaire on Authorisation**

1. The discussions on the authorisation related issues within FM PT48 had caused the idea to develop a questionnaire which should be sent to the CEPT administrations. The views of the administrations will then be considered and the results will also be reflected in the ECC Report which is still under development.
2. FM PT48 provided a draft questionnaire to the meeting (FM(13)092). The draft questionnaire was amended and then finally adopted by WG FM as in Annex 09 of these Minutes. The questionnaire will be sent out by the ECO to ECC List D and to the WG FM email reflector.

**4.3.4 Other issues**

1. Mr Peter Hommel (D) provided a presentation (Info007r1) on Lufthansa Systems ATG (air-to-ground) Trial Flight on 17 April 2013. A 20 MHz channel at 5865 MHz was used during the test. The maximum e.i.r.p was 45 dBm (with ATPC).
2. The meeting noted the presentation.

*Statement of UK*

*“The UK noted the decision of the meeting in relation to the work under the unpaired 2 GHz CG, was that there should be a completion of all applicable sharing studies in time for the June 2014 date in the Mandate. UK reflected that as this date is after the current documented closure date for PT48 (May 2014) that the removal of the specific TDD studies in 2015 –2025 MHz appeared to be premature.”*

***4.4 FM PT 49 (PPDR)***

**4.4.1 Progress Report**

1. Mr. Thomas Weber (ECO), on behalf of the FM PT 49 chairman, presented the progress report of FM PT 49 as in document FM(13)087.

**4.4.2 Draft ECC Report 199**

1. Mr Thomas Weber (ECO) presented the results of the public consultation of draft ECC Report 199 as in document FM(13)074. Responses from 12 entities had been received by the Office. From the comments, administrations and other stakeholders in general expressed support for the draft ECC Report 199 as a significant milestone reached but also indicated some considerations for improvements. These suggestions were listed in the ECO Summary Table in Annex 3 of document FM(13)074 which was made available for the comment resolution process performed during the last FM PT49 meeting.
2. The result of the comment resolution process in FM PT49 was presented as in document FM(13)086 and WG FM approved ECC Report 199 for publication as in Annex 10 of this Minutes. The list of definitions was changed and agreed by WG FM after Mr Weber (ECO) prepared a list of abbreviations in the known format as in other ECC Reports and as requested by the meeting and considered as a more suitable format.
3. WG FM noted that FM PT49 had not used the comment resolution table prepared by Office to indicate how FM PT49 derived changes in draft ECC Report 199 after the consultation. WG FM decided that FM PT49 should prepare such a table in the future when dealing with comment resolution after public consultation.

**4.4.3 Draft ECC Report B**

1. Mr. Thomas Weber (ECO) presented the structure of draft ECC Report B (BB PPDR Solutions) as in annex 1 of the FM PT49 progress report and the identified candidate bands for BB PPDR as in annex 2 of the progress report.
2. WG FM endorsed the proposal for the structure of draft ECC Report B as well as the identified candidate bands. This includes the understanding that the bands which are not considered as candidate bands in annex 2 of the FM PT49 progress report should not be further investigated by FM PT49. For the PPDR Wide Area Network two bands have been identified: 400-470 MHz and 694-790 MHz. However, concerning local temporary demand and in relation to the 2 GHz Unpaired Bands, it was felt important to be more precise on the usage scenarios for DMO and AGA and FM PT49 was requested to provide more precise scenarios on time within the timeframe of the mandate for the 2 GHz Unpaired Bands (see also section 5.6). Regarding AGA, it was questioned whether the scenario was only video transmissions from the air to the ground (and not air-ground-air) and if this was the case, whether other bands could also be options.
3. Hungary recommended that the AGA scenario should not only include helicopters but also other airborne vehicles such as UAV.
4. Belgium indicated that 400 MHz was not an option for them.
5. WG FM noted the LS sent by FM PT49 to the WG FM CG on 2 GHz Unpaired Bands as provided in annex 4 of the FM PT49 progress report.
6. WG FM also noted that PPDR representatives in FM PT49 had raised the issue of the need of protection criteria for PPDR. However, some Administrations preferred not to discuss it. The last FM PT49 meeting agreed to leave this issue open and to come back on this issue in one of the next meetings, after the PPDR organisations have presented their interests.
7. With regard to the candidate bands, Mr. Thomas Weber (ECO) explained that FM PT49 considers that compatibility issues to other services and applications have to be considered well, for example to commercial services, to the adjacent broadcast services and to applications between the band gaps. WG FM was invited by FM PT49 to consider the coordination of the compatibility issues related to the identified candidate band and the respective adjacent bands. However, administrations in WG FM did not suggest any actions at this WG FM meeting.
8. WG FM discussed the LS from ECC PT1 to FM PT49 (annex 3 of the FM PT49 progress report / info006). ECC PT1 acknowledged that ECC had agreed on the following analysis of the task on technical conditions at its meeting in March 2013 for the 700 MHz band: «Development of Common least restrictive technical conditions (BEM) for wireless broadband with the understanding that such BEM could potentially not only cater for electronic communications services, but also for PPDR»
9. Based on the request in the mandate and the guidance from ECC, ECC PT1 intends to proceed with the approach of developing a single block edge mask (BEM) that would be applicable to mobile broadband both commercial and PPDR networks.
10. ECC PT1 seeks the views of FM PT49 on its planned approach of developing common technical conditions (BEM) which would be suitable for commercial mobile broadband and also for broadband PPDR networks. ECC PT1 agreed to launch a CG to develop the BEM in the 700 MHz band.
11. Moreover, ECC PT1 is aware that development of channelling arrangements for mobile broadband is underway in CPG PTD in its work on WRC-15 agenda item 1.2 and at this stage there are different options under study. The very large majority of the current options focused on a frequency division duplex (FDD) arrangement. Based on the progress of the work from CPG PTD in the reduction of number of options, ECC PT1 intends to provide later more detailed information on preferred frequency arrangement(s) under investigation.
12. WG FM decided to authorise FM PT49 to respond directly to the request from ECC PT1 in line with the schedule requirements of the 700 MHz mandate.
13. WG FM noted the response LS sent by FM PT49 to CPG PTA as provided in annex 5 of the FM PT49 progress report.

***4.5 FM PT 50 (1452-1492 MHz)***

**4.5.1 Progress Report**

1. The Chairman of FM PT50, Dr. Benoist Deschamps (F), introduced the progress report of FM PT50 (Document FM(13)089). FM PT50 had one web-meeting between WGFM#76 and WGFM#77.
2. This web-meeting was dedicated to the incorporation of the technical elements received from ECC PT1 and WGSE/SE7 into the draft ECC Decision on the harmonised use of the 1452-1492 MHz band for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL). The result of the FM PT50 work is provided in the Annex of document FM(13)089.

**4.5.2 ECC Decision on 1452-1492 MHz**

1. With regard to the draft ECC Decision on the withdrawal of the ECC/DEC/(03)02, M. Weber (ECO) indicated that no comment had been received during the public consultation, as reported in document FM(13)075. As no further comment was given during the meeting, WG FM approved the draft ECC Decision on the withdrawal of the ECC/DEC/(03)02 to be sent to the ECC for final adoption and publication (see Annex 11 of these Minutes).
2. The WG FM Chairman introduced then documents FM(13)085 and FM(13)112, respectively liaisons statements from ECC PT1 and WGSE providing the technical elements related to the in-band and out of band emissions applicable to MFCN SDL.
3. The draft ECC Decision on the harmonised use of the 1452-1492 MHz band for Mobile/Fixed Communications Networks Supplemental Downlink in CEPT, as provided in the Annex of document FM(13)089, was then considered by WG FM. In the absence of any comment, this draft ECC Decision was approved by WG FM for public consultation as in Annex 12 of these Minutes.
4. The FM PT50 Chairman thanked the WG FM for its support to the work of the Project Team and indicated that if there are no substantial comments on the draft ECC Decision on the harmonised use of the 1452-1492 MHz band for MFCN SDL, there will be no physical meeting of FM PT50. A web-meeting of the project team may be organised if there are numerous but non contentious comments so as to deal with them in advance for WGFM#78.

***4.6 FM PT 51 (PMSE)***

**4.6.1 Progress Report**

1. The Chairman of FM PT 51, Mr. Lindsay Cornell (UK), presented the progress report from the 7th and 8th meetings of the Project Team (Doc. FM(13)099) which were hosted by ANFR in Paris on 26th to 27th March 2013 and by ECO in Copenhagen 7th to 8th May 2013 respectively. The Project Team has continued to tackle the work on PMSE according to the agreed Terms of Reference.
2. WG FM notedthat FM PT51 has prepared a draft addendum to CEPT Report 50 dealing with the additional studies carried out by WG SE on wireless microphones in the duplex gaps 821 – 832 MHz and 1785 – 1805 MHz, document FM(13)099 Annex 1, and sent a LS to WG SE regarding the draft addendum to CEPT Report 50 asking for comments in time for the 77th WG FM meeting, document FM(13)099 Annex 2.
3. WG FM notedthat FM PT51 has prepared a draft Report B in response to the EC Mandate on PMSE dealing with cordless cameras, document FM(13)099 Annex 3.
4. WG FM notedthat FM PT51 will begin work on updating ERC Rec 25-10 in view of the changes to allocations, and complete the new draft report on PMSE (revising ECC Report 002) at its next meetings, which are scheduled to take place on 9th to 10th July 2013 and 4th to 5th September 2013 at the ECO, Copenhagen.

**4.6.2 EC Mandate on PMSE**

1. The FM PT51 Chairman informed WG FM that WG SE had prepared a LS, document FM(13)113, in response to the LS sent by FM PT51 regarding a request for comment on the draft addendum to CEPT Report 50 (document FM(13)099 Annex 2). WG SE informs WG FM that ECC Report 191 was not approved and adoption has been postponed until the September meeting of WG SE, pending additional work.
2. The FM PT51 Chairman noted that the draft addendum, prepared by the PT, document FM(13)099 Annex 1, was based upon ECC Report 191 and that since the expected approval had not been completed, the approval of the draft addendum to CEPT Report 50 was problematic.
3. Sweden, supported by France, recommended that the approval of the draft addendum to CEPT Report 50 should wait until WG SE approves the foundation studies in ECC Report 191.
4. The EC counsellor stated that whilst there was an expectation for the addendum to be available for the ECC meeting in June, it was more important to have accurate information on which decisions about possible harmonisation could be taken.
5. The EC counsellor underlined that stable and dependable information in regard to the usability of the proposed bands for PMSE is needed from CEPT as a result of the Mandate. If such information cannot be provided at this point in time due to the on-going work in WGSE it would be preferable to wait with the transmissions. However it should be noted that since the addendum contains vital information in regard to the value of the bands in a potential harmonisation measure such a delay might therefore also delay the process as a whole.
6. WG FM decided that the approval of the draft addendum to CEPT Report 50 would be postponed until the September/October meeting. As a consequence of this decision, it was agreed not to introduce document FM(13)108 from France.
7. The FM PT51 Chairman introduced document FM(13)099 Annex 3, the draft CEPT Report B in response to the EC mandate on PMSE dealing with cordless cameras.
8. After page by page examination of the draft, WG FM approved the draft CEPT Report B to be forwarded to ECC for approval for public consultation, attached as Annex 13.
9. The FM PT51 Chairman asked that in view of the identification of possible new tuning ranges for PMSE identified in draft CEPT Report B that a LS should be prepared for WG SE requesting studies to be made.
10. The draft LS was prepared by a drafting group. With the addition of providing the LS also in copy to PTD and a modification to the timeframe, the LS was approved by WGFM, as attached as Annex 14.

**4.6.3 Spectrum for PMSE**

1. The FM PT51 Chairman noted that document INFO 005, LS to FM51 on spectrum for PMSE within the 694-790 MHz band, had been considered by the PT at its 8th meeting. In view of the workload of FM PT51 and the date of the next ECC PT1 meeting, FM PT51 will prepare a response at their next meeting in July.

**4.6.4 Presentation of London Olympic Games experience**

1. Mr Mostafa Relmy and Mr Nigel Gunn (UK) presented document INFO 011 on the spectrum planning issues with regard to the 2012 London Olympic Games.
2. The WG FM Chairman thanked Ofcom for the presentation and noted the importance of PMSE and the complexity of planning for major events.

***4.7 FM PT 52 (2300-2400 MHz)***

* + 1. **Progress Report**
1. Mr. Morgan Westring (Sweden) presented the progress report of FM PT52 (document FM(13)097rev1) on behalf of the project team Chairman Mr. Ola Wimo (Sweden) and acting Chairman Mr. Bruno Espinosa (ECO). The project team has had two meetings since the 76th WG FM meeting and Sweden expressed its gratitude to ECO and Mr Espinosa for taking on the task to chair the April meeting in the absence of Mr. Ola Wimo (S).
2. The progress report addressed the following items:
* Activities on the development of a draft ECC Decision on the availability of the band 2 300-2 400 MHz for MFCN under the Licensed Shared Access (LSA) regime.
* Activities on the development of a draft ECC Recommendation on cross-border coordination for MFCN in the 2 300-2 400 MHz
* Considerations on the ETSI Draft TR 103 113 (draft SRdoc on “Mobile broadband services in the 2 300-2 400 MHz frequency band under Licensed Shared Access regime”) developed by ETSI TC RRS.

In addition to this the draft TR 103 113, which is an SRdoc on Mobile broadband services in the 2300-2400 MHz frequency band under Licensed Shared Access regime (document FM(13)064) was introduced.

1. The future meetings of FM PT52 are planned as follows:
* 28-29 August 2013, BNetzA, Mainz,
* 13-14 November 2013, ECO, Copenhagen.

Sweden provided the information that the intention is that Mr. Ola Wimo (S) will come back as the PT Chairman and take care of relevant of preparatory work before the meeting in August.

**4.7.2 MFCN in 2300-2400 MHz band**

1. FM PT52 has discussed the way to address free circulation of MFCN terminals in the 2 300-2 400 MHz band and suggested that it should be done through the inclusion of the band in the ECC DEC (12)01 rather than through the Decision under development. After clarifying that WG FM is the responsible group for ECC DEC (12)01, WG FM endorsed the suggested way forward.
2. Annex 2 of the draft ECC Decision on LRTC is proposed to be developed in collaboration with ECC PT1 taking into account the similar on-going task on BEM for the 3 400-3 800 MHz band. A liaison statement had been sent from FM PT52 to ECC PT1 on this matter and ECC PT1 had in its response asked for clarification, which has to be discussed by FM PT52 and considered in detail during its next meeting. WG FM endorsed the proposed way forward.
3. Concerning the scope of the Annex 3 of the Decision on the implementation of LSA, FM PT52 had discussed whether (1) it should contain harmonised provisions for sharing as hard limits (e.g. separation distances) or (2) it should provide guidance to administrations on the way to determine at national level sharing conditions under LSA. Taking into account the differences in incumbent uses across CEPT and that the first option might require additional compatibility studies (e.g. to address MFCN small cell deployment not covered in ECC Report 172), FM PT52 proposed to follow the second option. WG FM endorsed the proposal that FM PT52 should provide guidance to administrations on the way to determine at national level sharing conditions under LSA. It was also noted that out-of-band issues will be covered by WG SE.
4. Furthermore, WG FM was invited to provide its views on the incumbent uses in the 2 300-2 400 MHz band to be addressed in the implementation of LSA. After some discussions WG FM confirmed the list in the progress report and if contributions with proposals or requests for more detailed examples of applications are submitted they should be discussed in FM PT52.
5. Austria stressed the importance to reconsider the wording in Decides 3 of the draft Decision, which covers administrations development of appropriate provisions for incumbents to share the band with MFCN, based on LSA. WG FM was of the view that this issue has to be dealt within the project team.
6. Mr. Edgard Vangeel (ETSI) presented the draft TR 103 113, which is an SRdoc on Mobile broadband services in the 2300-2400 MHz frequency band under Licensed Shared Access regime (document FM(13)064). It was explained that ETSI had done an internal enquiry based on this version however the comments received are not yet implemented in this version.
7. During the ETSI internal enquiry, comments were raised w.r.t. potential negative impact of the unwanted emissions of these applications in the adjacent band 2.4 GHz ISM band which is an economical vital frequency band for WIFI, Bluetooth and many other SRD applications.

Among other things it was mentioned that introducing the LSA framework may require changes in the present regulatory framework to enable harmonised mobile applications in the 2 300-2 400 MHz band. In particular, there is a need for an ECC Decision harmonising the 2 300-2 400 MHz frequency band and providing guidelines for countries wishing to introduce mobile broadband wireless services in this band under the LSA framework to take into account incumbent use. Such an ECC Decision should include:

* Appropriate band arrangements and channelisation scheme;
* Guidance on the expected spectrum utilisation by broadband mobile services under LSA regime;
* Guidance on incumbent protection technical requirements under main LSA sharing scenarios;
* Guidance on LSA spectrum sharing conditions;
* Guidelines for assignment of rights of use for LSA licensees;
* Guidelines for the incumbent’s existing usage rights.
1. At its April meeting, FM PT52 considered the latest version of the draft SRDoc and discussed the six items proposed by ETSI and identified that the project team´s activities would address the four first bullet points whilst the two last ones should be taken care of in FM PT53. WG FM endorsed the proposed way forward.
2. With respect to the SRDoc the Netherlands expressed the importance of the possibility to apply the LSA regime dynamically since cordless cameras is an incumbent use in 2 300-2 400 MHz.

**4.7.3 Border coordination in 2300-2400 MHz**

1. For the coordination scenarios involving MFCN on both sides of the borderline, FM PT52 is working in close cooperation with ECC PT1 since it was agreed to take the existing ECC Recommendations (08)02 and (11)05 as a basis for this work. For the scenarios involving MFCN on one side of the borderline and other systems on the other side, FM PT52 has agreed that the draft Recommendation should provide guidelines to administrations and a preliminary framework has been developed. WG FM endorsed the current approach regarding the draft ECC Recommendation on cross-border coordination for MFCN in the 2 300-2 400 MHz band.

***4.8 FM PT 53 (RRS&LSA)***

* + 1. **Progress Report**
1. The Chairman of FM53, Mr. Emmanuel Faussurier (F), presented the progress report of FM53 (document FM(13)080). He underlined that no significant development had taken place within FM53 on TV WSD since last WG FM meeting. Concerning LSA, progress has been achieved on the working document for the ECC Report on “Licensed Shared Access Regulatory Framework” (see doc. FM(13)080 Annex 1). The target remains a submission of a draft ECC Report to WG FM meeting in September.
2. WG FM noted the progress report.

**4.8.2 White space devices, in particular in the UHF band (TV WSD)**

1. Mr. Faussurier underlined that UK, which is the leading administration on this issue, has now collected the responses received from their previous consultation on WSD Devices and initiated a process of re-viewing their plans and next steps for implementing WSD. Once this exercise will be completed and further information published, UK would be able to contribute text to FM53 for the draft report.
2. WG FM noted the on-going discussions on TV WSD (see section 3 of doc. FM(13)080).

**4.8.3 Licensed Shared Access (LSA)**

1. The Chairman of FM PT53 reported about FM53 discussions on the LSA concept (see section 4 of doc. FM(13)080), in particular on the issue of the applicability of the concept to incumbent being a commercial user and the relation with the concept of spectrum trading/leasing. He underlined that, based on these discussions, section 3.3.3 of Draft ECC Report on LSA framework specifies that “LSA as studied in this report does not apply to the incumbent being a commercial user as there is no demand from industry to develop this concept although this does not prevent to study LSA in order to protect systems such as PMSE where appropriate”.
2. When defining the key features of the LSA concept, FM53 concluded that the notion of “sharing agreement”, i.e. a contract negotiated between the incumbent and the LSA licensee that specifies the LSA spectrum sharing conditions, should not be studied in this report. This concept rather follows the principles of spectrum trading/leasing. Investigations on possible enhancements of the spectrum trading/leasing fall outside the scope of LSA.
3. The key features of LSA studied by FM PT53 are captured below:
* A “sharing framework”, for a given frequency band, will define the spectrum, with corresponding technical and operational conditions, that can be made available for alternative usage under LSA framework.
* Establishing a LSA “sharing framework” under the responsibility of administration/NRA requires the involvement of all other stakeholders.
* The NRA sets on the basis of “sharing framework” adequate procedure for issuing individual authorisations to LSA users.
1. Sweden noted the on-going work taking place in parallel within RSPG and the fact that these investigations have a broader scope as they cover the cases with incumbent being governmental or commercial users. While understanding the reasons for FM PT53 work to be focused on governmental incumbent users, Sweden underlined the necessity highlighted at ECC level that FM PT53 provides the necessary guidance to FM PT52 for the development of its regulatory deliverable, and thus the need to cover all types of incumbents relevant to the work on 2 300-2 400 MHz. As a second step the remaining types of incumbents should be covered in future work under WG FM in order to use the full potential of the LSA concept.
2. The Netherlands also questioned the limitation of LSA concept studied by FM PT53 to governmental incumbent users as similar sharing arrangements with military incumbent users have been performed for many years. LSA as a new tool will be beneficial only if it is applicable for all types of incumbents and can support dynamic sharing arrangements, such as with PMSE incumbent users.
3. The EC counsellor expressed that the EC request for a RSPG Opinion on LSA is focused on an operational Licensed Shared Access (LSA) concept as a complementary authorisation approach and not on a detailed solution for a specific band. The RSPG therefore generically defines incumbents as being anyone who has a right to use the spectrum. In this regard it is understood that the two works streams in RSPG and CEPT are complementing each other, whereby the FM PT52 and FM PT53 are developing a first concrete harmonisation measure for mobile networks sharing bands with governmental incumbents.
4. The Chairman of FM PT53 expressed that the language used in the report excluding specific type of incumbent from the LSA concept obviously cause some confusion. He underlined that chapter 3 of the draft ECC Report aims to define the key features of the LSA concept without prejudging of the applicable scenarios, in particular with respect to the nature of the incumbents and LSA users, although it is recognised that the LSA concept has been designed for implementation with an incumbent being a governmental body.
5. He proposed in order to take into account the comments received that FM PT53 ensures that chapter 3 stays generic in the definition of the concept and does not exclude specific type of incumbent or LSA users. Chapters 4 and 5 shall focus on LSA as a complementary way of identifying spectrum for MFCN, with the aim of providing necessary guidance to FM PT52, and shall as such take into account the various relevant incumbent users, whether governmental or commercial (e.g. PMSE).
6. The Chairman of WG FM invited the meeting to comment whether this approach is acceptable. He noted the consistency with the main objectives for the report highlighted in the draft executive summary:
* General analyses of the concept, taking into account initial RSPG working definition, how it fits with regulatory framework on the use of spectrum, and current practices in terms of spectrum management.
* Application of the concept to the mobile broadband application case/MFCN, particularly in the band 2.3-2.4 GHz; implications on the requirements to be included in CEPT “harmonisation measure”.
1. WG FM endorsed this proposed way forward.

***4.9 Short Range Devices / Maintenance Group***

**4.9.1 Progress Report**

1. Mr. Thomas Weber (ECO) presented the progress report of SRD/MG as in document FM(13)095.

**4.9.1.1 New ECC/ERC Decisions**

1. Mr. Thomas Weber (ECO) outlined the actions of the SRD/MG regarding PMR446/Digital PMR446. He informed WG FM that ETSI ERM / ERM TG DMR has adopted a new work item for creation of an ETSI Technical Specification for Continuous Tone Controlled Signalling System (CTCSS) and Digitally Coded Squelch Signalling (DCSS) system, potentially based on former national standards MPT1306 and MPT1381. The ETSI approval for the new specification is foreseen in March 2014. It may be considered for PMR 446 equipment in the future to aid migration to digital, i.e. for analogue receivers to make them more robust against interference. In addition, the revised Harmonised Standard EN 300 296-2 used for analogue PMR446 was adopted in line with the request from SRDMG / WGFM.
2. SRD/MG also considered a contribution from Portugal considering the implications of the usage of PMR446 repeaters which were observed to be in the market. SRD/MG agreed that the situation about usage of PMR 446 repeaters should be clarified in the regulations. Portugal agreed in SRD/MG to lead this action in response to a request from the SRD/MG chairman. The check should include the ECC Decisions for PMR446 and the applicable harmonised standards for both digital and analogue equipment. The aim is to clarify the situation before the revision of ECC/DEC/(05)12 is considered in 2014.
3. WGFM endorsed the actions of the SRD/MG with regard to PMR446/ Digital PMR446. WG FM emphasised that a revision of ECC/DEC/(05)12 with the possibility to include also the frequency range 446.0-446.1 MHz should be analysed carefully and would need a considerable transition time before digital equipment could be permitted in this frequency range because of the existing analogue PMR446 equipment population without having robust capabilities against digital interference.
4. WG FM considered the draft amended ECC/DEC/(05)02 prepared by SRD/MG. The SRD/MG chairman explained that this amendment was a consequence and follows the investigations and proposals set out in CEPT Reports 43 and 44 under the 169 MHz EC mandate and the permanent SRD mandate during the fifths update. WG FM approved the draft amended ECC/DEC/(05)02 for submission for PC as in Annex 15 of this Minutes).
5. In addition, WG FM approved a liaison statement from WG FM to ETSI ERM which was developed by SRD/MG to request ETSI to consider the results in revisions of the applicable harmonised standards, in particular the implementation requirements concerning duty cycles in the 169 MHz range. The adopted liaison statement is in Annex 16 of these Minutes. Austria emphasised that the importance of having the duty cycle requirements adequately covered by the harmonised standards and that users should not have the possibility to alter the duty cycle settings.

**4.9.1.2 DFS 5 GHz**

1. The progress of the work in SRD/MG on the creation of a draft ECC Report as well as the latest draft ECC Report 192 was noted and WGFM endorsed the progress made by SRD/MG.
2. SRD/MG proposed to send an LS from WG FM to ETSI TC BRAN and TC ERM, indicating that although EN 301 893 prohibits the equipment to provide the user direct access to any of the DFS setting, there are other means which may indirectly impact the DFS, including potential disablement of DFS. SRD/MG would highly appreciate if ETSI could consider these various issues and decide whether it would be desirable to address these in a possible revision of EN 301 893. WGFM approved the liaison statement with modifications as in Annex 17 of these Minutes.
3. WGFM expects that the draft ECC Report 192 will be prepared by SRD/MG for approval for public consultation at the next WG FM meeting.
4. In addition, the chairman of SRD/MG informed that he had requested administrations to indicate the existing measures to ensure that illegal operation of 5 GHz WAS/RLAN equipment without proper DFS operation will not continue and which existing information exchange possibilities are available about illegal equipment on the market. In addition, he indicated that contrary to the conclusions made in 2007, none of the feedbacks received up to now are pointing to short comings in the current version of ETSI harmonized standard EN 301 893 concerning the DFS mechanism. Equipment fully complying with this standard is assumed to provide adequate protection to radars.
5. WGFM endorsed the actions of the SRD/MG on this subject.

**4.9.2 Status of ERC/REC 70-03**

1. WGFM noted the status of ERC/REC 70-03 as in sections 4.2, 4.5 and 4.6 of the SRD/MG progress report.
2. No comments were received during the public consultations of Annexes 1, 2 and 7 of ERC/REC 70-03 and WG FM approved the three annexes for publication as in Annexes 18, 19 and 20 of this Report without modifications. It was noted that the adoption of these new annexes was in line with the findings in CEPT Report 44.
3. The SRD/MG chairman presented the results of the public consultation of annex 10 of ERC/REC 70-03. The following comments were received during the public consultation:
	1. Croatia indicated support for the proposed inclusion of the frequency band 1492-1518 MHz for professional wireless radio microphones as given in the sub-band j) 1492-1518 MHz.
	2. France, Austria, Germany and the Netherlands indicated to appreciate the proposal to insert the frequency band 1492-1518 MHz in Annex 10 of ERC – Recommendation 70-03. In addition, the four administrations proposed that in some countries, the proposed usage of this frequency range may be difficult due to sharing problems with new applications appeared since 2008 (publication date of the ECC Report 121 which deals with compatibility studies between PMSE and existing applications in this frequency band (prior to 2008)). Therefore, extended compatibility studies may lead to increase the number of implementing countries for such a new regulation in the future.
	3. France also suggests changing notes in the notes column of Annex 10 of ERC/REC 70-03 to indicate “Individual licence may be required” instead of “individual license is required” (bands d and e1 to e2) or as new addition for entries in rows a and g of the annex 10. This is in line with the information collected recently in WG FM under the questionnaires on the use of PMSE (a. on protection of PMSE from WSD – WG FM CG CRS, b. PMSE questionnaire – FM51) which showed that the majority of administrations use general licensing/license-exemption. A related liaison statement from PT FM 51 also indicated for both the 823-832 MHz and 1785-1795 MHz ranges, although Recommendation 70-03 recommends that individual licence would be required in these bands, many countries offer general licence or license-exempt usage.
	4. Finland considers that the 1492-1518 MHz band should not be included into ERC Rec. 70-03 Annex 10 at this point of time because for this frequency band there is on-going work in CPG PT D regarding WRC15 agenda item 1.1.
4. In conclusion, the position of administrations in the SRD/MG was the same as earlier stated in WGFM#76, with additional explicit support expressed by Croatia as well as Spain and Portugal expressing also in general to support the WGFM deliverables which were in public consultation.
5. SRD/MG also proposed to amend the language in the notes column in annex 10 of ERC Rec. 70-03 to use the same wording “body worn equipment” at all occurrences where this was the case.
6. WG FM approved the revised annex 10 of ERC/REC 70-03 for publication as in Annex 21 of these Minutes.
7. WG FM was informed that SRD/MG had discussed input a liaison statement from FM PT51 providing the proposal for a further revision of Annex 10 of ERC Rec. 70-03.
8. For the bands 823-826 MHz and 826-832 MHz, FM PT51 informed SRD/MG that CEPT Report 50 confirmed the conditions contained in ERC/REC 70-03 annex 10.
9. For the frequencies in the range 1785-1805 MHz, the liaison statement informed SRD/MG that the range from 1800 MHz to 1804.8 MHz could be added as usable frequency range for PMSE in Annex 10 of ERC Rec. 70-03. Considering the very stringent power limit proposed for the band 1804.8-1805 MHz, this may be considered as a guard band.
10. Concerning the out of band requirements at the band edges 823 MHz, 826 MHz, 1785 MHz and 1805 MHz, PT FM51 invited SRD/MG to consider whether they should be included in ERC/REC 70-03. Would it not be the case, then these requirements should be communicated to ETSI for inclusion in relevant harmonised standards. SRD/MG decided to propose to WG FM to send a liaison statement to ETSI ERM in order to request ETSI to include the out-of-block requirements in relevant harmonised standards such as EN 300 422. WG FM approved this liaison statement as in Annex 22 of these Minutes with the indication the draft ECC Report 191 was approved by WGSE for a second public consultation. After discussion of this aspect, WG FM agreed that the reasons for the second public consultation were not related to the out-of-block limits included in CEPT Report 50 and in the adopted liaison statement to ETSI ERM.
11. The SRD/MG chairman informed that SRD/MG discussed whether additional restrictions are necessary for radio microphones as indicated by the studies in WG SE, also in relation to the existing band entries from 1785 MHz to 1800 MHz in annex 10 of ERC Rec. 70-03 for radio microphones. Administrations in SRD/MG concluded that this was not the case for handheld radio microphones in the range 1785-1785.2 MHz where an additional power density limit was proposed to avoid GSM blocking. It was concluded in SRD/MG that such an additional limit seemed disproportioned to be added taking into account many factors such as the implementation status of the existing regulation for radio microphones, the determined out-of-block emission limits, the fact that this relates to the blocking capabilities of GSM equipment, the use of other technologies now and in future in the 1800 MHz band, also including the advent of digital microphones and related operating bandwidths.
12. Another requested restriction in the new frequency band was to include for the band 1803.6-1804.8 MHz an additional power density limit of 10 dBm/200 kHz for handheld radio microphones (on top of the 13 dBm power limit). A typical radio analogue radio microphone bandwidth is 200 kHz, for digital technology it is likely more such as 600 kHz. SRD/MG concluded that this additional restriction seemed also not needed and negligible since it relates to the slow increase of LTE UE selectivity, a limited difference of 3 dB or less in power spectral density for handheld equipment and the respective body loss assumptions in the PMSE studies.
13. Belgium and the Netherlands stated their support for the proposals made by SRD/MG.
14. WG FM agreed to the proposals from SRD/MG and decided to adopt the draft revised annex 10 of Rec. 70-03 for public consultation with a new frequency opportunity for radio microphones in the band 1800-1804.8 MHz with precisely the same parameters as for the 1785-1800 MHz frequency entries below. SRD/MG also recommended keeping the three band entries for the total range 1785-1804.5 separate at the moment in order to keep the implementation status for the two existing bands and monitor the implementation of the new band entry.
15. The revised new draft Annex 10 of ERC Rec. 70-03 adopted for public consultation is in Annex 23 of these Minutes.
16. In addition to the request set out by France, Austria, Germany and the Netherlands for studies in the band 1492-1518 MHz during the public consultation of Annex 10 of ERC Rec. 70-03, WG FM was informed that SRD/MG also considered two additional input documents:
	1. from France, providing technical information on Tactical Radio Relay and Tactical Video Reporting systems operating in the frequency band 1492-1518 MHz and
	2. from the United Kingdom, about compatibility considerations between MSS transmissions and PMSE (wireless microphone) services in the frequency range 1518-1525 MHz.
17. The study request for the band 1492-1518 MHz was supported in SRD/MG by Austria, Denmark, France, Germany and the Netherlands. The study request for the band 1518-1525 MHz was supported in SRD/MG by Austria, Germany, Lithuania, Russian Federation and the United Kingdom. SRD/MG proposed therefore to WGFM a liaison statement to be sent from WGFM to WGSE to request studies on the PMSE tuning range in the frequency bands 1492-1518 MHz and 1518-1525 MHz for PMSE on a tuning range basis, individual licence required and restricted to indoor use. The technical information provided by France and the United Kingdom was attached in annexes 1 and 2 of the draft liaison statement respectively. WG FM approved the liaisons statement to WG SE as in Annex 24 of this Minutes.

**4.9.3 EC related activities**

1. WG FM noted section 5 of the SRD/MG progress report concerning EC related activities relevant for SRD/MG.

**4.9.3.1 Fifth Mandate UWB**

1. Mr. Thomas Weber (ECO) presented the results of the public consultation of draft CEPT Report 45. Comments were received from France requesting clarifications concerning the UWB applications LT2 and LAES (ECC/REC 11-09 and ECC/REC 11-10). The ECO summary is in document FM(13)076 and SRD/MG had agreed to the change request with minor modifications.
2. The outcome, draft CEPT Report 45 was approved by WGFM without modifications for submission to the ECC for final approval as in Annex 25 of this report.
3. The SRD/MG chairman also informed WG FM about the next steps for a potential update of Commission Decision 2007/131/EC on ultra-wideband (UWB) technology, available in document RSCOM 13-06.
4. The EC document follows the proposals made in draft CEPT Report 45. In one area, UWB on-board aircraft, the RSCOM 13-06 sets out some need for clarification, mainly due to the lack of a harmonised standard for UWB on-board aircraft. In this context, it can be argued that due to the limited number of aircraft manufacturers, UWB on-board aircraft equipment manufacturers and the need for implementations specific to the type of aircraft, this may not be considered as a subject to be covered in a Harmonised European Standard but rather specific implementation construction files provided by the manufacturer to the certification process. The UWB on-board equipment will also be subject to several certification processes. The subject is also different and should not be confused with the referencing to harmonised standards for the precise technical details for mitigation techniques such as LDC, TPC and DAA as for other UWB equipment. The UWB regulation on-board aircraft includes only lower limits at specific frequencies without indication of specific mitigation techniques how these can be achieved and the note that alternative mitigation techniques offering equivalent protection could be a solution. This can be used by the airplane manufacturer and gives the freedom to implement a specific solution for a specific plane, installation and applications etc. These aspects were also communicated in a recent web-meeting between the SRD/MG chairman, EC and the aircraft industry.

**4.9.4 ITU-R activities**

1. WG FM noted the SRD/MG activities as presented in the progress report from SRD/MG. These included:
	1. There were no input documents regarding Resolution 54 - identifying studies which could be exported to ITU-R WP1B with the target to include additional frequency ranges in ITU-R Recommendation SM.1896 for global and regional harmonisation of SRD applications. In earlier meetings of SRD/MG, the Netherlands expressed that MBANS could be in future a possible item for such an input to WP1B. Studies in relation to new 60 GHz regulation for non-specific SRD were also mentioned as a possibility for consideration in this context. In addition, in relation to possible frequency use by aircrafts, SRD/MG may consider how the international harmonisation of frequencies such as for UWB on-board aircraft, 60 GHz range and the 76-77 GHz range may be fostered and phased into the ITU-R processes.
	2. a proposal from ECO for a CEPT Contribution regarding an updating of ITU-R Report SM.2153 concerning the European content for SRDs. This follows the task from WGFM to consider a proposal to be made to the ITU-R WP1B meeting in June 2013. This proposed update informed about the SRD related information which is already available in EFIS and which is planned to be included in EFIS in the near future. It was proposed to include a link to ERC/REC 70-03 and to EFIS in ITU-R Report SM.2153. SRD/MG agreed unanimously on a CEPT contribution to be sent to WP1B. The Netherlands agreed to provide the CEPT contribution to WP1B;
	3. a proposal from France for a CEPT Contribution to revise Recommendation ITU-R M.1450-4, France proposed to update the implementation information included in table 3 of this ITU-R Recommendation in order to reflect the current European regulation in the band 57-66 GHz (Recommendation ERC/REC/70-03). During the last meeting of ITU-R WP5A, an update of Recommendation ITU-R M.1450-4 which provides the characteristics of broadband radio local area networks (RLANs) including technical parameters, and information on RLAN standards and operational characteristics has been initiated. Following this request NSOs have been asked to update references to existing standards on RLANs. It was noted that ETSI/ERM and ETSI/TC BRAN replied to ITU-R WP5A accordingly. SRD/MG agreed unanimously on a CEPT contribution to be sent to WP5A. France agreed to provide the CEPT contribution to WP5A.

**4.9.5 Future Spectrum for RFID, Smart Metering and SRD at UHF**

1. WG FM considered the SRD/MG progress report, section 13, and noted the information from WG SE that draft ECC Report 200 with the related compatibility studies was now approved for public consultation (doc. FM(13)110).
2. The UHF Roadmap was not considered for changes.
3. The main conclusions of the draft ECC Report 200, where not changed since the last reporting.
4. SRD/MG updated the draft ECC Report 189 concerning the information contained in the updated ETSI TR 102 791 on TRS and the available information on E-GSM-R. The latest draft document is in SRDMG(13)070.
5. It was agreed in SRD/MG to request the rapporteur, Mr. Robin Donoghue, from OFCOM UK, to create a new draft of ECC Report 189, taking into account the agreed structure of that draft ECC Report, to reflect the information contained in the draft ECC Report 200. The goal was now to propose regulatory solutions for inclusions of new utilisation opportunities in ERC Rec. 70-03. The proposal should follow the principles set out in CEPT Report 44, i.e. using the existing SRD categories in ERC Rec. 70-03 and based as much as possible on application and technology neutrality.
6. In addition, an SRD/MG ad hoc meeting is scheduled to discuss the new draft ECC Report 189. It is expected to finalise Draft ECC Report 189 for submission to the WGFM#78 for public consultation approval. A final proposal for inclusions of new utilisation opportunities in Rec. 70-03 might therefore be envisaged for those countries who could implement SRD regulations in these bands.
7. In addition, it was agreed to set up a dedicated reflector for this work item in SRD/MG.
8. WG FM endorsed the actions of the SRD/MG under this work item.

**4.9.6 MBANS (Medical Body Area Network Systems)**

1. WG FM considered the SRD/MG progress report on MBANS and the information from WG SE that draft ECC Report 201 was now adopted for public consultation (doc. FM(13)110).
2. SRD/MG discussed the possible regulatory approach for MBANS based on the investigations and studies performed in SRD/MG and SE24 between MBANS and other radio services and applications such as LP-AMI in the frequency band 2483.5 – 2500 MHz.
3. SRD/MG requested WG FM to endorse the development of a regulatory solution for inclusion of MBANS in ERC Recommendation 70-03. SRD/MG also proposed a liaison statement to be sent by WG FM to ETSI ERM (cc ERM TG30) concerning the sharing of 2483.5 – 2500 MHz band by medical applications.
4. Document FM(13)107 from Italy was presented, requesting changes in the proposed liaison statement to ETSI.
5. The SRD/MG chairman was requested by WG FM to lead a drafting group to amend the liaison statement. The revised liaison statement was approved by WG FM as in Annex 26 of these Minutes.
6. The principles set out in the liaison statement for the sharing of medical applications in the frequency band 2483.5-2500 MHz were identified as follows:
	1. MBANS and LP-AMI devices are foreseen to coexist in the band 2483.5 MHz to 2500 MHz on the basis of equal access to the spectrum.
	2. In the draft ECC Report 201 mitigation techniques were not considered but it was concluded that mechanism(s) for MBANS and LP-AMI to avoid each other when operated in close proximity, or other measures, could address the issue of co-existence between MBANS and LP-AMI.
	3. Based on the CEPT Reports 14 and 44 and RSPG opinion of Collective Use of Spectrum, which clearly identified that there is a need to facilitate shared spectrum access, there is a clear requirement for adequate sharing amongst SRD applications when using the same frequency range. Therefore, technical and/or operational solutions should be found by all market players in order to achieve co-existence between these SRD applications.
	4. Based on the conclusions in the above mentioned CEPT Reports and the RSPG Opinion, it is emphasised that new SRD applications should be proposed to fall in one of the existing SRD categories and frequency bands and hence, there is also the requirement to share frequencies with other SRD applications using the same frequency range, in particular when applications are in the same market sector and proposals were originally created by the same ETSI Task Group, as was the case for LP-AMI and MBANS.
	5. WG FM emphasises that none of the medical SRD applications has seniority over the others in the 2483.5-2500 MHz band, while keeping equal rights to access the spectrum.
	6. In order to achieve this key goal WG FM is of the view that compatibility between MBANS and LP-AMI could be improved by introducing appropriate channel access and detection techniques.
	7. In addition, WG FM is of the opinion that identification and development of these mitigation techniques should, be dealt with by experts within ETSI and be incorporated in the respective harmonised standards. WGFM requests ETSI to keep SRD/MG informed about these standards at each stage of their development, as the necessary key spectrum access parameters are intended to be included in ERC Rec 70-03, in accordance with the interactive ECC/ETSI cooperation agreement.
	8. WG FM is of the opinion that adequate spectrum sharing mechanisms should be implemented to facilitate sharing between these technologies and applications and in case of congestion, to ensure equal access.
	9. Mutual interference effects and possible implant battery life reduction have been identified, thus reducing the time frame before implant replacement surgery, especially when MBANS operates in the same room or on the same body as LP-AMI.
	10. WG FM recommends ETSI standards for LP-AMI and MBANS may specify some means of detecting each other to improve coexistence.
	11. In addition WG FM recommends a more immune LP-AMI battery wake-up mechanism for implants may be employed.
	12. Other non-technical features may improve the co-existence between MBANs and LP-AMI.
7. Some administrations expressed the view that both applications are at a stage before market introduction and this seems to be an appropriate time to discuss further mutual mitigation techniques in ERM / ERM TG30 in order to foster an efficient usage of the spectrum.
8. WG FM agreed to task SRD/MG to develop a proposal for inclusion of MBANS in ERC Rec 70-03 for the next meeting of the WG FM.

 **4.9.7 76-77 GHz Radars**

1. WG FM noted the progress report from SRD/MG and the information from ETSI in document FM(13)068 that ETSI is now preparing two ETSI SRdoc (as was requested by SRD/MG and WGFM) and SRD/MG decided to wait until these SRDocs are received before discussing the subject with the aim to precisely define and fine-tune the study requests to WGSE. The scope of these ETSI SRdocs was noted:
	1. TC ERM has adopted the NWI for the SRdoc TR 103 148 on 76 GHz fixed infrastructure. The scope reads: “SRdoc for surveillance radar equipment operating in the 76 to 77 GHz range for fixed road infrastructure surveillance applications”. With regard to the consideration of other frequencies for this work item, it was noted that “possible other frequencies could be discussed during the preparation of the System Reference Doc”.
	2. TC ERM has adopted the NWI for the SRdoc TR 103 137 concerning the 76 GHz on Helicopter application. The scope reads: “SRDoc for surveillance radar equipment operating in the 76 GHz range for helicopter application, with consideration of other frequency ranges”.
2. It is expected that the SRdocs may become available for the next SRD/MG meeting.
3. Concerning another new work item in ETSI, SRD/MG noted that ERM has adopted the NWI for a new part 3 of the EN 301 091-3 which covers the Road/Railway crossing application as identified in the last version of the ERC Rec. 70-03 annex 4.
4. SRD/MG was informed that work items for two new ETSI SRdocs for the helicopter application and also fixed installed radars along roads were in the approval procedure in ETSI ERM. The scope of these two new SRDoc was also not limited to only 76-77 GHz but could possibly also include considerations of other frequency ranges such as the 60 GHz range, 77-81 GHz, 122-123 GHz.
5. WG FM agreed with the SRD/MG proposal to put considerations on hold until documentation from ETSI will become available.

**4.9.8 Industrial wireless applications**

1. WG FM noted the progress report of the SRD/MG on this subject.
2. It is expected that the studies in the band 5.725-5.875 GHz will be finalised by August 2013 for wireless industrial applications with up to 400 mW e.i.r.p, or 25 mW e.i.r.p. / 1 MHz limitation, channel bandwidth of 1 MHz, 3 MHz and 20 MHz. APC and sensing as mitigation techniques are under considerations. The studies at this time are traditional MCL compatibility studies without considering the concept of not exceeding an emission limit at the border of an industrial site which was finally considered as impracticable.
3. With regard to the DFS mechanism to protect the Radiolocation Service, the characteristics associated with such mitigation would need to be clearly defined in order to facilitate their implementation.
4. SRD/MG will consider this subject further, presumably in the August 2013 meeting after the final draft study results are available for finding a regulatory solution for inclusion in ERC Rec. 70-03 in one of the application neutral annexes of ERC Rec. 70-03.
5. WG FM endorsed the considerations provided in the SRD/MG progress report on wireless industrial applications.

**4.9.9 13.56 MHz inductive application**

1. WG FM noted the information provided in the SRD/MG progress report. SRD/MG is waiting for the outcome of the study in SE PT24 which may become available in January 2014. SRD/MG may consider the precise frequency range entry(ies) in ERC Rec. 70-03 Annex 9 and need for inclusion of (a) transmitter mask(s) for the 13.56 MHz entry for clarification after final results of the studies in PT SE24 will become available.

**4.9.10 TTT/DSRC**

1. WG FM had tasked SRD/MG to define the requirements for WG SE to conduct compatibility studies in 5805-5815 MHz (no precise technical studies are available or were conducted when the band was made available for RTTT in the early 1990’s.) to find the precise limits of the operating conditions for RTTT DSRC to be compatible with the radiolocation service in 5805-5815 MHz. This action was an outcome of the discussions under CEPT Report 44 which is now approved.
2. SRD/MG agreed to propose to WG FM to request WG SE to conduct studies on defining limits of the operating conditions for TTT/DSRC in the frequency band 5805-5815 MHz. A draft liaison statement was prepared by SRD/MG and approved by WG FM as in Annex 27 of this Minutes.
3. It was noted that future road tolling systems may be planned to detect a car which is more far away from the turnpike and this means that the down tilt of the antenna may be less and less directed to the ground. DSRC equipment is also used sometimes for other purposes than road tolling in several European countries (some information is given in CEPT Report 44). The aim of this study is to define clear operating conditions within 5805-5815 MHz in order to create a reliable environment for both DSRC and radio services to operate.
4. WG FM noted the actions of the SRD/MG concerning the review of definitions in relation to the traffic and transport telematics (TTT) field. SRDMG sent a liaison statement to ETSI ERM (cc: ERM TG SRR and ERM TG37) to collect relevant information, including acronyms used, for radio equipment in the automotive domain. In the CEPT Report 44, frequency bands 5795-5805 MHz and 5805-5815 MHz for DSRC systems restricted to road tolling systems have been proposed to be included in the EC decision on SRD. In this context, comments from France were received raising the issue around the lack of clarity on the definition of radio equipment used in the automotive domain and in particular on the so-called DSRC equipment. SRD/MG noted that the definition for DSRC systems are not, at present, aligned between Europe, USA or Japan (as an example, in USA and in Japan, DSRC includes ITS applications). To clarify the situation and ensure that the compatibility studies are complete, SRDMG would appreciate receiving all the relevant information, including acronyms, on existing or future automotive applications.

**4.9.11 24 GHz**

1. WG FM was informed that SRD/MG had discussed a request from Latvia concerning the 24 GHz band with regard to usage of the SRD regulation in the 24.05-24.50 GHz band for Fixed Links-like application with operating distances of several kilometres. SRD/MG did some first preliminary assessments which were also included in the SRD/MG progress report. This will be further investigated before a final assessment will be provided to Latvia and those concerned.
2. Greece indicated in WG FM to be also interested in such investigations. The SRD/MG chairman was tasked to collect information from administrations by SRD/MG, in particular regarding the question about which administrations received similar requests and about observations of illegal usage (i.e. with higher emission levels) or interference cases.
3. WG FM endorsed the SRD/MG actions on this subject.

**4.9.12 ALDs in the VHF (174-216 MHz)**

1. With the adoption of CEPT Report 43, further investigations in SRD/MG and SE24 have been started on technical parameters and usage conditions in the frequency band 174-216 MHz (ERC REC 70-03 Annex 10 band d) that may allow the usage of adaptive hearing aids (ALDs) in order to give a more robust environment and some additional frequency opportunities.
2. WG FM was informed that a work plan has been established for the considerations in WGSE / SE PT24. The schedule is to have results available by January 2014.
3. Currently, two concepts are investigated for ALD spectrum compatibility:

1. the use of databases containing DAB and DTV deployment information and ALD installation registration, so that, locally, ALD fixed installations can be assigned spectrum that is not used by the terrestrial broadcast service in the vicinity, hence avoiding interference;

2. the use of defined threshold levels at the ALD reception side that is used by the ALD system installer. This second concept is considered to be technically less complex and bears no burden for the administration compared with the database option. However, it is not yet clear whether this option is feasible.

1. SRD/MG agreed to keep the two options at the moment. Concerning the first option, SRD/MG agreed to send a liaison statement to PT FM53 to express the interest in the description of an overall regulatory framework for geo-location databases which is part of the work in FM PT53.
2. Concerns were expressed in WGFM that the usage of a database for low power ALD in the VHF range could be technically too complex and not appropriate for such applications.
3. WGFM endorsed the SRD/MG actions on this subject.

***4.10 ECC PT1 (MFCN)***

**4.10.1 Progress Report**

1. WG FM Chairman introduced the Document FM(13)106, an overview of the results of the last ECC PT1 meeting. In this document WG FM is invited to consider the LS from ECC PT1 on MFCN BEM SDL for the frequency band 1452-1492 MHz (Document FM(13)085) and to note the following issues:
* the organisation to respond to EC mandate on 700 MHz (Document FM(13)106 Annex 1) with involvement of FM PT49 and FM PT51;
* the applicability of TDD BEM in the 3.4-3.8 GHz band for the band 2300-2400 MHz with relevant frequency correction (INFO 004);
* the draft revision of ECC DEC (06)13 (Document FM(13)106 Annex 2) and ERC/DEC (98)22 (Document FM(13)106 Annex 3);
* the progress made by ECC PT1 with regard to the frequency arrangement for the band 3.4-3.6 GHz.
1. WG FM Chairman explained that Document FM(13)085 was considered by WG FM meeting under Agenda Item 4.5.2 and the proposed out-of-block EIRP limits for the MFCN SDL Base station within the band 1452-1492 MHz was included into the draft ECC Decision on MFCN SDL in 1452-1492 MHz band and invited the meeting to comment on the other issues mentioned in above (1).
2. The next meeting of ECC PT1 will be on the 9-13 of September 2013 and will be co-located with CPG PTD meeting. The meeting noted the progress report of ECC PT1 and the dates for the forthcoming meeting of ECC PT1 without further comments.

***4.11 EFIS Maintenance Group***

**4.11.1 Progress Report**

1. Mr. Thomas Weber (ECO) presented the EFIS/MG progress report as in Doc. FM(13)114.
2. WG FM noted several subjects which had been discussed in a recent web-meeting. These included:
* links between national databases and EFIS,
* the testing of electronic questionnaires related to EFIS for which ECO invites interested administrations to participate in beta-testing activities, of questionnaires related to EFIS,
* the progress of work regarding ERC/REC 70-03 and ECO Report 03 information as data in EFIS and related benefits.

**4.11.2 RIS Models in EFIS (WI-EFIS/MG\_07)**

1. There were no new RIS models proposed for uploading into EFIS at this WGFM meeting.

**4.11.3 EC related activities (WI-EFIS/MG\_08)**

1. Mr. Thomas Weber (ECO) informed that ECO did not receive comments during the public consultation of draft CEPT Report 47 in response to the EC mandate on EFIS. Administrations did also not provide comments during the recent EFIS/MG web-meeting. WG FM agreed the draft CEPT Report 47 for submission to ECC for final approval without further change as in Annex 28.
2. Mr. Thomas Weber (ECO) also informed that the Commission Implementing Decision 2013/195/EU - Radio Spectrum Inventory has been recently published. The Decision defines the practical arrangements, uniform formats and a methodology in relation to the spectrum inventory, in particular, that data should be made available by Member States through EFIS.

**4.11.4 Review of ECC/DEC/(01)03 on EFIS (WI-EFIS/MG\_05)**

1. An amendment of annex 2 of the Decision (01)03 is expected to be made available for the next WG FM meeting. Suggestions made during the last EFIS/MG meeting included a review of the application terms under broadcasting satellite receivers (layer 2 term) and the SRD terminology (following CEPT Report 44).

***4.12 Forum Groups***

**4.12.1 Maritime Forum Group (WI- MFG 1-5)**

*Report on 1 year CEPT FM Maritime Forum Group*

1. The Chairman of the CEPT FM Maritime Forum Group, Mr. Jaap Steenge (NL), introduced doc. FM(13)101 Rev 1 containing the “Report on 1 year CEPT FM Maritime Forum Group”.
2. Mr. Jaap Steenge (NL) indicated that the Annual Report of the FM Maritime Forum group is covering the period December 2011 - May 2013. So, somewhat longer than 1 year, but at the same time providing more sight on the actual work within the group. He also stated that as no template had been created yet for the format of such a Report, the group invented the format itself and he questioned whether the used format would satisfy the requirements of the meeting.
3. Mr. Jaap Steenge (NL) indicated further that in the Report an overview of activities the Maritime Forum Group is involved in has been presented in a format, which shows a direct link with the respective elements of the Terms of Reference of the group.
4. He provided the meeting with information on activities in the field of maritime radio communications and reported on the progress of work of importance for CEPT and the activities undertaken which are related to preparatory, coordination and harmonisation activities within relevant fora for the FM Maritime Forum Group, such as IMO, ITU-R, EC and within Administrations.
5. Also information was exchanged with the meeting on the working methods of the group, scheduled meetings, the work programme of the group and the involvement of Administrations and organisations in the work of the Forum Group.
6. The meeting noted the progress of work within the FM Maritime Forum Group and adopted the format of the Annual Report on 1 year FM Maritime Forum Group as well as its content.

*Summary of questionnaire maritime UHF*

1. Doc. FM(13)088, containing a “Summary of replies to the WGFM Questionnaire on the present usage and requirements in the UHF band for maritime on board communications” was after a short introduction noted by the meeting.
2. The meeting and especially the chairman of the FM Maritime Forum Group expressed its appreciation to the ECO colleagues for the excellent work done in the preparation, the execution and the presentation of the outcome of the Questionnaire.

**4.12.2 Radio Amateur Forum Group (WI - RA FG 1-3)**

1. Mr. Thomas Weber (ECO), on behalf of the Chairman of the WG FM Radio Amateur Forum Group (RAFG) Mr. Alexander Gulyaev (ECO), informed the meeting that in accordance with the Rules of Procedures progress report of RAFG for the year 2013 will be presented at the next WG FM meeting in September 2013.
2. Meanwhile Mr. Thomas Weber (ECO) reported that RAFG is currently working mainly on two issues: in cooperation with IARU Region 1 and ITU-R WP 5A evaluate applications of non-CEPT countries to join CEPT Recommendations T/R 61-01 and 61-02 and to develop the Recommendation on the harmonisation of national examination procedures for radio amateurs with disabilities.
3. WG FM noted this information.

**5. Work Items in progress within WG FM**

***5.1 Upcoming Civil-Military meeting***

1. Based on national inputs the WG FM drafting group finalised and presented a draft agenda for the ECC/WG FM Civ/Mil meeting that is stable and has sufficient and substantial content for the foreseen two meeting days from 26-27 November 2013 in Dublin/Ireland.
2. WG FM approved the presented agenda as in the Annex 29 to these Minutes.

***5.2 Update of the ECA Table***

1. WG FM Chairman informed the meeting about the agreed procedure of updating ECA (see Document FM(13)062 Annex 38) and explained that this meeting is expected to collect proposals and prepare an Action Points List for the next ECA Table update.
2. ECO proposed to review SRD entries in ECA in order to align the terminology used in the ECA with terminology in CEPT Report 44. After some discussion and without further proposals the Action point list for the next ECA Table update was agreed by the meeting as in the Annex 30 to these Minutes.

***5.3 General review of 5 years old ECC/ERC Decisions and Recommendations***

1. WG FM chairman recalled that ECC endorsed the earlier proposal of WG FM to start the revision of ECC Decision (06)06 on Narrowband Digital PMR/PAMR and invited WG FM to present a revised draft ECC Decision to the next ECC meeting. Four proposals for amendment of ECC/DEC/(06)06 were received and presented to WG FM:
	1. Document FM(13)067, proposing to include a reference to minimum required spectral efficiency of 6.25 kHz;
	2. Document FM(13)078, proposing to remove the band 450-470 MHz and to have a reference to minimum spectral efficiency in the text of the Decision;
	3. Document FM(13)102, supporting the revision of ECC/DEC/(06)06 as proposed by Sweden in document FM(13)078 and ECO; and
	4. Document FM(13)115, proposing to maintain the band 450-470 MHz in Decision ECC/DEC/(06)06.
2. ECO provided clarification on the reason for proposing a reference to minimum required spectral efficiency; it was explained that in the USA a 12.5 kHz minimum spectral efficiency was included as a requirement for new PMR authorisations or the renewal of licences (FCC narrowbanding approach), but in contrary the three ETSI specifications for TETRA-25, DMR and dPMR are considered as 6.25 kHz spectral efficient.
3. Views in favour and against the limitation of the channel width were expressed. As a compromise, the WG FM chairman suggested to have in the considering part a sentence that would allow administrations to define a minimum spectral efficiency such as 6.25 kHz or 12.5 kHz. The meeting agreed to it.
4. A drafting group was established to prepare two sentences, to be inserted in the considerings part, to reflect the definition of a minimum spectral efficiency and the concept of imposing a minimum spectrum efficiency as a possible option identified by administrations who would like to impose such a requirement, respectively.
5. With respect to the removal of the band 450-470 MHz from ECC/DEC/(06)06, many views were expressed in opposition to it. Therefore, WG FM decided to keep the band 450-470 MHz in the Decision.
6. After being drafted, the two new considerings (n) and (o) where proposed to the meeting and WG FM agreed to it.
7. The amended Decision ECC/DEC/(06)06 was adopted by WG FM (Annex 31) for submission to public consultation.
8. WG FM reviewed the List of ERC/ECC Decisions for regular review process (Annex 32).

***5.4 DECT sub-class 18***

1. WG FM Chairman informed the meeting that ECC PT1 has developed the draft revision of ERC Decision (98)22 on “Exemption from Individual Licensing of DECT equipment, except fixed parts which provide for public access” (Document FM(13)106 Annex 3) and submitted this proposal for the ECC consideration. WG FM Chairman invited the meeting to comment on the proposal from ECC PT1.
2. As no comments were expressed WG FM Chairman suggested that depending on the results of ECC conclusion of this proposal work item WI-FM\_20 could be closed as being finalized. WG FM noted this information.

***5.5 Compatibility between GSM-R and public mobile networks***

1. The 1st meeting of the WG FM Correspondence Group on GSM-R was held in Mainz / Germany on 15 April 2013. The major task was to discuss and to analyse the responses to the Questionnaire which had been adopted during the WG FM meeting in February.
2. Mr Thomas Weber (ECO) introduced the summary on the responses (FM(13)065). A total of 34 countries had provided an answer to the questionnaire. In addition, two stakeholders had provided a response. A detailed introduction had already been provided to the meeting of the CG.
3. Ms Begona Domingo (European Railway Agency, ERA) provided a presentation (Info012) on behalf of the European Commission, DG MOVE (Directorate General for Mobility and Transport). The meeting appreciated the comprehensive information which also supports the on-going activities within CEPT. The proposed way forward on the railway side will be discussed during the forthcoming meeting of RISC (Railway Interoperability and Safety Committee) from 4-6 June 2013.
4. Mr Morgan Westring (Sweden) appreciated the initiative of the European Commission and emphasised that, with regard to any future harmonised solution, no additional burden should be caused for those administrations which had already implemented a solution on national level.
5. Mr Daniel Kitscha, European Commission, DG CONNECT (Directorate General for Communications Networks, Content and Technology) informed the meeting that the next meeting of GFUG (GSM-R Follow-Up Group) will take place on 28 May 2013 in Brussels. The CG chairman had been invited to this meeting.
6. Mr Thomas Weilacher (Chairman CG on GSM-R) introduced the progress report on the CG meeting (FM(13)070).
7. As a result of the analysis, the CG had prepared a document (Annex 3 to FM(13)070) providing remarks and proposals on the way forward. The meeting endorsed these proposals. The next step will be to carry out measurements by using current and improved cab radios. The measurements should also provide a view on the different impact coming from UMTS, LTE and GSM.
8. The details for the preparation of the measurements will be developed by the CG. Sweden informed the meeting that some measurements had already been carried out in Sweden and support could be provided.
9. The German administration (BNetzA) volunteered to carry out the measurements if equipment will be made available. The UIC representatives, Mr Dan Mandoc and Mr Dirk Schattschneider, provided support for these measurements.
10. The meeting agreed to send a liaison statement to the UIC (Annex 33).
11. Mr Vincent Durepaire (GSM Association) indicated that, from his point of view, the CG should further discuss possible solutions. Sweden emphasised that different countries are at different stages regarding the GSM-R deployment and regarding the roll-out of UMTS or LTE at 900 MHz.
12. The WG FM chairman underlined that, at the end of the process, the work should result in an ECC deliverable.
13. A liaison statement from ECC PT 1 was submitted to the latest WG FM meeting in February 2013 (WGFM#76-Info012), providing information from 3GPP RAN4 on UTRA/E-UTRA parameters to be taken into account in the studies for the extended GSM-R band. This document had not been discussed in detail during the WG FM meeting but it was planned that the CG could prepare a view on that for the forthcoming WG FM meeting in May.
14. The CG chairman informed the meeting about the outcome on this issue (FM(13)071). Due to lack of time it had not been possible to discuss this agenda item during the CG meeting. However, views could be provided as part of the CG follow-up activities.
15. The discussions on the GSM-R extension band were originally started based on an ETSI System Reference Document (TR 102 627) which was introduced during the 64th WG FM meeting in September 2008 (FM(08)099).
16. During the discussion Mr. Enrico Tosato (Italy) mentioned that the purpose for the GSM-R extension band is not the same as for the GSM-R core band. The GSM-R extension band will especially be used in shunting areas and at railway station areas.
17. Mr. Thomas Weber (ECO) informed the meeting that the standardisation of the mobile class mark identifier for the GSM-R extension band is still missing (under the responsibility of 3GPP) which could be considered as a major obstacle for the implementation of ER-GSM on the market.
18. The WG FM chairman concluded that everybody is invited to provide further views on the GSM-R extension directly to the CG.
19. ECC PT 1 was invited to contribute to these discussions (liaison statement in Annex 34.

***5.6 Unpaired 2 GHz bands***

1. The Chairman of the correspondence group on Unpaired 2 GHz bands (1900-1920 MHz and 2010-2025 MHz), Ms. Cristina Reis (POR), presented the progress report of the CG as in document FM(13)103.
2. The CG was tasked by WG FM in February 2013 to develop the draft Interim Report in response to the EC Mandate on *“To undertake studies on the harmonised technical conditions for the 1900-1920 MHz and 2010-2025 MHz frequency bands (“Unpaired terrestrial 2 GHz bands”) in the EU”*, with the support of the PTs identified during WG FM meeting in February 2013.
3. A physical meeting of the CG took place on the 9th of May, 2013. This meeting (planned at WG FM’s February meeting, subject to further confirmation) was scheduled with the sole purpose of preparing the Draft Interim Report from CEPT to the European Commission in response to the Mandate *on “Unpaired terrestrial 2 GHz bands”*.
4. The CG received 7 contributions (ECO, FM PT48, FM PT51, SRD/MG, Atos IT Solutions, FM PT49 and SE7/SE44) for the draft Interim Report, which were presented during the CG meeting. These contributions were assembled in a working document, which was discussed in detail in the CG’s meeting. The result of the discussions and agreements document reached in the CG meeting are reflected in document FM(13)104. WG FM was invited to comment and support the draft Interim Report as proposed by the CG.
5. The following three points were brought to the attention of WG FM for further guidance or agreement, as appropriate (more detail is to be found in document FM(13)103, Section 4):
	1. Structure of the Interim Report

Two modifications of the Interim Report Structure as agreed during WG FM’s February 2013 meeting (Annex 44 to document FM(13)062) were proposed to WG FM and agreed by the meeting.

* 1. Options to be considered on BDA2GC

To ease the on-going activities on the sharing possibilities in the unpaired 2 GHz bands, WG FM was invited to provide guidance on the number of scenarios to be considered. As a result of the debate, WG FM decided that the on-going compatibility and sharing studies regarding the unpaired 2 GHz bands should only take into account the two options (FL and RL) in the lower band, and also the two options (FL and RL) in the upper band. This will inherently provide results for both the FDD and TDD options. However, the possibility of TDD in the band 2010-2025 MHz should not further be studied. This approach would also ease the sharing with other candidate applications, e.g. with PMSE, which is necessary in meeting the specific requirements in response to the Commission Mandate. Further details can be found under section 4.3. It was decided to inform WG SE accordingly (Annex 08).

* 1. Local PPDR similarity with PMSE

WG FM was requested to provide guidance on similarities/differences of local broadband PPDR, intended to be used on a temporary basis for governmental purposes, and PMSE. This triggered an exchange of views in plenary on the PPDR “case uses” that should be considered under the “Unpaired 2 GHz bands” (e.g., clarification was sought on the type of connection required, AGA or AG only). FM PT 49 was thus invited to further discuss this in detail and provide feedback on the “case uses” intended to be accounted for in the analysis that has to be carried out under the “Unpaired terrestrial 2 GHz bands” EC mandate.

1. The ETSI Liaison Officer introduced document FM(13)069r1 containing a draft Systems Reference Document TR 103 149 on DECT operating in the 1900 – 1920 MHz. It was explained that ETSI had done an internal enquiry based on this version but no comments were received, apart from minor changes proposed by TC DECT itself. The final version will be submitted to the September meeting of WGFM.
2. It was explained how new functionalities including internet connectivity, increased voice quality are driving the need for more spectrum. In addition, the development of the Ultra Low Power (ULE) operational mode opens the door for a wide range of new applications, especially in the area of machine to machine communication. The latest services being developed include video and data applications for home automation or control.
3. The preference is to have 20 MHz of additional spectrum allocated, adjacent to the existing 1880-1900 MHz band. That would allow to use additional carriers in the guard band or to use the total 40 MHz band for broadband services using higher modulation schemes providing high bit rates. This new band would allow immediate implementation as this spectrum is already in use by DECT outside Europe, means components are available to support a fast market development in Europe when the frequencies would become available.
4. ECO observed that the SRDoc does so far not contain justification with regard to the quantity of the additional spectrum. The ETSI TC DECT chairman responded that this observation is correct and that simulations are currently being performed, so that such information is expected to be available with the final version of the SRDoc.
5. Austria questioned why the power was specified again in a manner which was questioned before.
6. ETSI clarified that this wording was taken from the existing ETSI standard. In the meantime ECC PT1 has decided on the power levels and related conditions including antenna gain, and the final version of the SRDoc will respect the recent PT1 outcome.
7. ETSI also confirmed that the final version will include a justification for the quantification of the required spectrum.
8. ECO informed that, where the previous regulation which was developed many years ago was technology (DECT) specific and application-neutral, amendments to existing regulation or a future new regulation should be also technology neutral.
9. The draft Interim Report as prepared by the CG in response to the EC Mandate on *“Unpaired terrestrial 2 GHz bands”* was considered by WG FM (document FM(13)104).
10. Mr. Edoardo Marelli (ESA) pointed out that new services in the unpaired bands should not constrain the use or limit future developments of Earth stations belonging to the Space Services (SRS, SOS, EESS) and requested this to be clarified in the draft Interim Report. It was agreed that the CG, while developing section 7.2 (New regulatory measures) of the draft report, will seek to reflect ESA’s concern.
11. Sweden expressed its deep concern about how the work with the EC mandate is developing in its initial phase. Sweden therefore suggested that the CG's mandate and the Interim Report should also leave room for not harmonising the frequency bands 1900-1920 MHz and 2010-2025 MHz for any of the candidate applications studied, i.e. give the possibility to put this issue on hold with some kind of interim solution. The suggestion was based on the following arguments:
- very limited industry interest for SRD and PPDR;

- PMSE is usually considered as a number of secondary applications;

- DECT is not considered to be in line with the principle of technology neutrality and

- DA2GC, as currently presented in FM PT48 and SE PT44, is not good enough when reviewing it from a technical, economical and licensing point of view (see document FM(13)038 to WGFM#76).
The comments made by Sweden are complementary to the Swedish contribution FM(13)039 to WGFM#76.

1. On request of ESA, the chairman of FM PT 48 clarified that the sharing studies conducted so far under section 4.2.1 (*Compatibility between Broadband DA2GC and space services above 2025 MHz*) do not yet cover all compatibility aspects with SOS and EESS. This was reflected in section 4.2.1 of the draft Interim Report.
2. WG FM finally agreed on the text of the draft Interim Report as in Annex 35.
3. The CG Chairman sought additional clarification on:
	1. Number of reports to be delivered by CEPT under the EC mandate (one or two);
	2. The distinction between the elements to be delivered under task (1) and (3) of the EC mandate.
4. Further views were exchanged offline:
5. As sharing is considered among CEPT to enhance and increase spectrum uses, many views were expressed in the sense that it would be beneficial to have the preliminary results on sharing already reflected in the Interim Report.
6. Due to the fact that the three tasks as specified in the mandate are considered to be interrelated to each other, some administrations supported the idea of having one single report in response to the mandate.
7. The EC Counsellor clarified that the results of Task (1) and (2) are subject of “Report 1”, which is due in March 2014, and the final sharing conditions are the subject of “Report 2”, which is due in November 2014.
8. The EC Counsellor further clarified that the need for a public consultation is noted in a footnote and that the formulation of Task (3) acknowledges the potential dependencies and CEPT is invited to address the interdependencies of the work items if necessary.
9. The advantages of having one single report in response to the EC mandate were presented to plenary. It was proposed to provide to ECC a cover letter together with the Interim Report, in order to clarify the reasons for proposing one single report in response to the EC mandate. WG FM agreed to proceed in this way. The draft cover letter was proposed to plenary and the meeting agreed to the text as in Annex 36.
10. WG FM invited everybody to contribute further to the work of the CG, aiming at providing additional information to respond to the EC Mandate. In particular, support is sought by the relevant PTs as identified during February’s WG FM meeting, and especially those that did not yet provide detailed information, so that CEPT’s Response to the EC Mandate is completed in time.
11. It was further highlighted that the next actions from the CG are very much dependent on the views of ECC and EC.
12. If WG FM’s view as expressed in Annex 36 is well received by ECC and EC (meaning that CEPT provides only one single report under this EC mandate), the Final Draft Report corresponds to the next milestone to be achieved and is due by June 2014, to be then sent to public consultation. This report shall contain the answer to all three tasks as specified in the EC mandate.
13. If the delivery of 2 separate reports is confirmed, the CG will finalise the first report until next WG FM meeting (September 2013) and only tasks (1) and (2) need to be accomplished.
14. All interested parties that did not yet subscribe to the CG mailing list are invited to do so. As soon as any further information is available, it will be distributed among the CG members via the email reflector.

***5.7 Maritime Broadband Links***

1. The chairman of WG FM noted that ETSI is expected to deliver an SRDoc on *Broadband communication links for ships and fixed installations engaged in off-shore activities operating in the 5 GHz to 8 GHz range* (see document FM(12)114 Rev1, Section 6.1).
2. The ETSI Liaison Officer informed the meeting that an SRDoc on Maritime Broadband Links is now complete and the internal enquiry is finished.
3. The ETSI Liaison Officer further informed that the SRDoc is expected to be submitted to the next ERM meeting for approval and, as a result, it is expected that the SRDoc is submitted to WG FM to be discussed during its meeting in September 2013.
4. WG FM noted the information provided by ETSI’s Liaison Officer.

***5.8 PLT***

1. The Chairman of WG FM introduced document FM(13)109, a Liaison statement to WG FM proposing to close the Joint SE/FM Forum Group on PLT.
2. WG FM noted that the main objective of the Joint SE/FM Forum Group on PLT, namely the voting process of CENELEC pr EN50560-1, was accomplished.
3. Furthermore, it was highlighted that the current convener, Mr. Yves Ollivier (ANFR), would temporarily not be available for this task.
4. WG FM agreed to WG SE’s proposal to close the Joint SE/FM Forum Group on PLT and report to ECC.

**6 New work items**

***6.1 NWIs from FM PTs***

**6.1.1 Proposals from FM PT 22**

1. Mr. Ralf Trautmann (D), the Chairman of FM PT 22 presented Document FM(13)082, the evaluation of FM PT 22 on the Microsoft Spectrum Observatory. Microsoft opened in early 2013 a fixed observatory station in Brussels. This station is operated under the responsibility of Microsoft and some graphical overview of the collected and processed spectrum utilisation data is available in the public domain. Microsoft aims to provide a common storage area for spectrum usage data to be collected, analysed, and presented to those interested in understanding wireless spectrum utilisation. The observatory should also provide some information that could be used to identify WSD (White Space Devices) frequency opportunities although Microsoft recognises that at this stage the use of a geo-location database is more suitable than sensing approaches.
2. FM PT 22 discussed the concept and concluded that the current implementation is prone to achieve false spectrum occupancy results. In some cases a whole band looks occupied just because the detection threshold is not adapted to the requirements of the respective sub-band, whereas bands that are used by low duty cycle or frequency hopping systems will look completely free because the scanning speed is too low or not enough samples are taken on each frequency. A meaningful interpretation of the data available in the graphical charts is not possible since the raw data is not available and was already processed. Necessary tailoring of the measuring approach (fixed or mobile/nomadic, number of measurement points to achieve required geographical resolution, dedicated parameter settings for the radio services and applications in a specific band as well as the expected technologies in use) is hardly possible.
3. The presentation of Microsoft gives the impression that a few sensors at fixed locations would be sufficient to give an overview of the spectrum usage in a certain area. To give a detailed inventory of the usage of a spectrum ranging from 30 to 6000 MHz in a big city, a vast amount of fixed receiving stations or other methods such as mobile data collection would be necessary.
4. The meeting noted the document and will convey the conclusions regarding the Microsoft Spectrum Observatory to the ECC as in Annex 37.

**6.1.2 Proposals from FM PT 44 (New Work Item on NGSO ESOMPs)**

1. WG FM decided with the support of seven Administrations, in compliance with the ECC Rules of Procedures, to initiate work on an ECC Report (in a first step) and an ECC Decision (in a second step) on NGSO ESOMP in the frequency bands 27.5 -29.1 GHz and 29.5 – 30.0 GHz. The development of an ECC Decision is pending endorsement of the next ECC meeting. This Decision is to address the harmonised use, free circulation and exemption from individual licensing of such ESOMP terminals. The original proposal was made by the United Kingdom in PT FM 44. WGFM decided to not include the frequency band 27-27.5 GHz since there is no FSS allocation in Region 1 and the band is also identified for governmental use in NATO.
2. In the discussions, it was noted that the preparation of an ECC Report and an ECC Decision on NGSO ESOMP could take an approach similar to that taken for the preparation of similar documents (ECC Report 184 and ECC Decision (13)01) for GSO ESOMPs. SE40 undertook the technical studies for GSO ESOMP and developed the technical elements related to the compatibility with the fixed service that were incorporated into Report 184 and the ECC Decision (13)01.
3. WG FM agreed to request WG SE to undertake in support of the development of an ECC Decision on NGSO Earth Stations on Mobile Platforms in the frequency bands 27.5 -29.1 GHz and 29.5 – 30.0 GHz as in the liaison statement in Annex 38. Compatibility studies should be in relation to the protection of the fixed service. O3b (an NGSO system operator) indicated in FM PT44 that they would make necessary contributions to facilitate the studies in WGSE.
4. WG FM noted that it is assumed that ETSI may create a Harmonised European Standard for NGSO ESOMPs, similar to the GSO ESOMPS.
5. The MSUA requested clarifications to be made about the downlink frequencies in relation to the NGSO ESOMPs. Mr Weber confirmed to report this request to FM PT44.
6. Another issue raised in the FM PT 44 progress report was to consider the additional interference of aggregate e.i.r.p. from NGSO ESOMPs of different satellite networks. This issue is also raised in SE PT19 as well. In addition, part of this question is the need to clarify what is the expected number of separate NGSO ESOMP operators. The Netherlands stated in FM PT44 that at the next FM PT44 meeting, they will raise this issue with an input document.

***6.2 Narrow band Point-to-Multipoint (nP2M) system***

1. The ETSI Liaison Officer introduced document FM(13)073 containing a final approved Systems Reference Document TR 103 102 on Spectrum Requirements for Narrow band Point-to-Multipoint (nP2M) system operating in the 430-470 MHz frequency range. These systems aim for 150 kHz of spectrum in the 430 to 470 MHz range. The designation should include 2 blocks of 3 adjacent 25 kHz channels.
2. This SRDoc further describes how these nP2M systems are used to provide cost-efficient alerting services for European citizens.
3. Austria questioned the proposed power of 100 W ERP. It was clarified that this proposed power level would ensure an indoor coverage.
4. WG FM noted INFO 009 «A white paper on Narrow-band Information Distribution over Paging», presented by Dr. Gollnick (Germany), with the aim to provide better understanding for the use of nP2M system in Europe.
5. Finland noted that spectrum requirements for paging systems had been discussed early in former FM PT38 and this resulted in an inclusion into the ECA table (ERC Report 25). So at the current stage there is no need for new harmonisation measures. In addition, Finland proposed to investigate whether this system could be included in the ECA Table.
6. ESA informed that by 2020 it is planned to use EESS active sensors in the considered frequency band so corresponding compatibility studies should be done.
7. Austria, the Netherlands’ and Denmark also indicated that there is no need for any harmonisation activity. Austria draw the attention to Recommendation T/R 25-08 according to which only the range 440-450 MHz may be used for simplex systems within the range 430-470 MHz.
8. Germany proposed to analyse the applicability of current ECC harmonisation measures for those paging systems before taking a final decision on the proposal according to the ETSI SRDoc.
9. WG FM agreed to the German proposal and established a corresponding group to investigate options on how WG FM could handle this proposal. The WG FM Chairman will lead this CG.

***6.3 Low Power - Cochlear Implant Systems (LP-CIS) in 2.5 GHz***

1. The ETSI Liaison Officer introduced document FM(13)072 containing a Systems Reference Document TR 103 069 on Low Power Cochlear Implant Systems (LP-CIS) operating in the band 2483,5 MHz – 2500 MHz. This technology offer solutions for hearing loss for moderate conductive or sensorineural hearing losses.
2. This SRDoc proposes to permit low power cochlear implant systems in the 2483,5 to 2500 MHz band under a harmonised regulatory framework on a license exempt arrangement.
3. The full potential of cochlear implant systems require communications between external and implanted devices, to be allowed outdoor as well as indoor.
4. Mr. Thomas Weber (ECO) introduced the results of consideration of TR 103 069 by SRD-MG and noted that SRD-MG proposed to send a LS to WGSE to start compatibility studies for Low Power Cochlear Implant Systems, precisely in the same way as for MBANS and LP-AMI.
5. Italy pointed out that according to the ETSI system reference document, LP-CIS could use in some cases e.i.r.p. emission levels up to 0 dBm, which could create interferences to the GNSS.
6. This view was supported by the Netherlands.
7. In addition, WGFM noted that LP-CIS have totally different use and deployment scenario compared with LP-AMI and MBANS.
8. Mr. Thomas Weber (ECO) confirmed that this was the reason why SRD/MG proposed to request studies for LP-CIS.
9. UK supported the SRD-MG proposal to send an LS to WG SE.
10. WG FM decided to send an LS to WG SE (see Annex 39) and tasked SRD-MG to include LP-CIS in its work programme.
11. Sweden asked to indicate how many administrations were interested in LP-CIS studies. WG FM Chairman noted that according to the ECC rules for establishing a work item, it was sufficient to have an ETSI system reference document.
12. Sweden and Italy also proposed to take into account adjacent band compatibility issues for LP-CIS studies. WG FM confirmed that LP-CIS studies should be done by WGSE precisely in the same way as for LP-AMI, MBANS. In addition, the studies on LP-CIS should not be given priority over existing on-going studies in SE PT24 and WG FM emphasised that none of the medical SRD applications has seniority over the others in the 2483.5-2500 MHz band, while keeping equal rights to access the spectrum.

***6.4 Wi-Fi in 5 GHz range***

1. Mr. Morgan Westring (Sweden), presented document FM(13)098 regarding studies of additional spectrum for Wi-Fi in the 5 GHz range in the light of on-going activities outside Europe, particularly in USA, which provide an opportunity for broad harmonisation. Sweden proposed to create a work item to revise ECC Decision (04)08 on the harmonised use of the 5 GHz frequency bands for the implementation of WAS including RLANs. Taking into account EU’s Digital agenda the main objective should be to address additional spectrum for unlicensed Wi-Fi use in Europe in the frequency ranges 5350-5470 MHz, 5725-5850 MHz and 5850-5925 MHz.
2. Sweden argued that this proposal would give a good basis for cooperation with the European Commission during development of an EC mandate to CEPT. An early start would also ensure that enough time is available for necessary studies in order to carefully address possible co-existence with existing applications and possible future usage that can be expected within the current regulatory framework in any part of 5350-5470 MHz, 5725-5850 MHz or 5850-5925 MHz, e.g. civil and military radar, GMES *(Global monitoring for environment and security – Earth observation programme)* and ITS.
3. When considering this proposal Sweden stressed the importance of avoiding duplicated work with CPG PTD who is are responsible for WRC-15 agenda item 1.1, under which the frequency bands 5350-5470 MHz, 5725-5850 MHz and 5850-5925 MHz are being considered for broadband RLANs.
4. ESA expressed concern that there are already many different groups where this issue is discussed and they believe it is too early at this stage to initiate work on revision of ECC DEC 04(08).
5. Finland highlighted that in the future IMT-advanced systems will be capable to provide part of applications and services considered now for RLANs and did not support the proposal at this stage.
6. France also considered it to be too early to create a work item, taking into account that there is not even a draft EC mandate available yet and that the WG FM should await the outcome of agenda item 1.1 (WRC-15). Similarly Norway, Germany, the Czech Republic, Switzerland and Denmark were not in favour to create a work item at this point of time.
7. Austria could not support the proposal given the recognised problems with the DFS mechanism in the 5 GHz bands used for RLANs already. ETSI replied that the draft ECC Report 192 does not indicate any shortcoming in the current DFS mechanism. See clause 4.9.1.2.
8. The Netherlands supported the proposal for early start of the studies but also stated that it is important to study possible problems relating to the existing usage of RLANs.
9. Italy was against the proposal considering that there are a lot of incumbent uses in the bands and that the circumstances in 5350-5470 MHz, 5725-5850 MHz and 5850-5925 MHz are very different from each other.
10. The EC counsellor informed the meeting that the Commission in 2012 has announced its intention to consider the designation of additional harmonised licence-exempt spectrum for RLAN services (Wi-Fi) at 5 GHz through a revision of Decision 2005/513/EC, depending on the outcome of technical sharing studies and of the impact in the market (COM(2012)478). In this context the Commission services are currently preparing a Mandate to CEPT, which will be discussed in the next meeting of the RSC, July 2013. It was emphasised that the studies will be aimed at identifying a possibly uninterrupted band for RLAN under the condition that the appropriate protection of other existing uses which are of high relevance to EU policy will be ensured. In this regard, in particular the planned introduction of GMES to monitor environmental changes on the Earth's surface in the band 5350-5470 MHz and the important harmonisation of the band 5875-5905 MHz for safety-related applications of Intelligent Transport Systems (Decision 2008/671/EC) will be of key importance.
11. ECO raised the question on what the status will be for the new bands in the 5 GHz range, since they do not fall under ITU-R Res. 229 (WRC-03). Wi-Fi as it is under ECC DEC (04)08 is following Resolution 229 (WRC-03) on the use of the bands 5150-5250 MHz, 5250-5350 MHz and 5470-5725 MHz by the mobile service for the implementation of WAS including RLANs.
12. UK supported the Swedish proposal, in particular the upper band 5850-5925 MHz taking into account that ITS is still not introduced within this band.
13. Digital Europe supported studies to be conducted.
14. After discussion the WG FM Chairman concluded that this matter will have to be taken care of sooner or later and he identified three questions that need to find an answer:
* Which group(s) should be responsible for the studies?
* Should the studies be limited to RLANs or should it be widened to include IMT technology and possibly bands above 6 GHz?
* When should the work be initiated?
1. He invited administrations to consider the fact that a draft EC mandate could be available in July 2013 and encouraged administrations to prepare for further discussions on the subject to the ECC meeting in June and the next WG FM meeting.
2. Sweden committed itself to send a further developed contribution on Wi-Fi in the 5 GHz range to the upcoming ECC meeting.

**7 European Telecom Policy and Follow-up**

***7.1 EC recent activity***

1. The EC Councillor, Mr Daniel Kitscha, gave an update of the policy developments on EU level and reported from the recent meetings of the RSC (INFO 002) and the work of the RSPG (INFO 003). From the 43rd meeting of the Radio Spectrum Committee (RSC#43), which took place in Brussels on 20 / 21 March 2013, the following results were noted by WGFM:
* **SRD Decision (5th update):** On the basis of CEPT Report 44**,** the Commission presented a draft Commission Decision on the coordinated revision of Decision 2006/771/EC on SRD and Decision 2005/928/EC on the 169 MHz band (*RSCOM13-05*). Member States have been asked to submit final comments on two SRD category definitions. The comments received have been taken into account and the Commission services are currently preparing to seek the Opinion of the Committee in the autumn of 2013, following a 60 days stand-still period. In addition, ETSI has been requested to provide an updated list of all harmonised standards that are relevant for the harmonised bands, which will be included in the revised explanatory note.
* **UWB**: The Commission services have outlined (*RSCOM13-06*) that the goal of a potential to allow the use of UWB with higher e.i.r.p. when applying mitigation techniques as defined in Harmonised Standards that achieve equivalent levels of protection as the harmonised generic limits. Member States welcomed the approach and noted that with regard to UWB on-board of aircraft further analysis of the new framework is required on the part of the Commission services.
* **PMSE**: Member States have been invited to share their views in writing on the usability of the FDD centre gaps for audio PMSE equipment (*RSCOM13-11*). The Commission services are awaiting the results of the Mandate and are working on an impact assessment on the foreseen harmonisation measure.
* **Spectrum inventory**: Member States gave a positive opinion pursuant to the Radio Spectrum Decision to revise the draft Commission Implementing Decision on the inventory (*RSCOM13-08*). The Decision 2013/195/EU[[1]](#footnote-2) has been adopted by the European Commission on 23 April 2013, defining practical arrangements, uniform formats and a methodology in relation to the radio spectrum inventory established by the RSPP (Decision No 243/2012/EU) and for the purpose to help achieving an efficient management of the spectrum in all bands relevant to Union policies through gradual improvement of data availability and analysis.
* **Mandate on 700 MHz**: The RSC gave a positive Opinion to the Mandate which was adopted by the Commission and submitted to CEPT in March 2013. The mandate aims at technical conditions for the introduction of wireless broadband in the 700 MHz band by also studying the possibility of shared spectrum use with certain incumbent uses such as PMSE and also taking into account other priority areas of EU spectrum policy such as public protection and disaster relief (PPDR) and should ensure appropriate protection for incumbent uses, primarily broadcasting services and PMSE, below the 700 MHz band.
* **MCA:** Member States welcomeda preliminary draft Decision amending Decision 2008/294/EC to enable also the use of UMTS 2100 (3G) and LTE 1800 (4G) on board aircraft. An Agreement on a stable text of draft amended decision is expected to be reached in the next RSC meeting.
* **GSM-R interference:** The Commission presented the contributions from RSC Members and the ERA that GSM-R interferences remain a matter of concern. A GSM-R interference Follow-Up Group (GFUG) chaired by the Commission services of DG MOVE and supported by DG CONNECT and ERA was established to further consolidate the process towards resolving GSM-R interference issues. The next meeting will be held on 28 May 2013 in Brussels.
1. In the 30th meeting of the Radio Spectrum Policy Group, which took place in Brussels on 20 February, Mr Finn Petersen, Deputy Director General of the Danish Business Authority, was confirmed by acclamation as new RSPG deputy chairman until the end of 2013. The high-level policy dialogue on the strategic importance of spectrum for Wireless Broadband and the future of the 700 MHz band was held between Vice-President Kroes and the Members of the RSPG. In her address to the group, the Commissioner responsible for the Digital Agenda underlined the need for an EU strategy concerning the future of the 700 MHz band as part of a sustainable solution for the whole UHF band under consideration of all stakeholder interests. In addition, the following results of the RSPG meeting are to be noted by WGFM:
* **Wireless Broadband**: The agreement to launch a public consultation on a Draft RSPG Opinion on Strategic Challenges facing Europe in addressing the Growing Spectrum Demand for Wireless Broadband[[2]](#footnote-3) was reached. The adoption of the Opinion is expected to take place in June.
* **LSA**: The RSPG agreed on a broad scope of work on the Opinion on Licensed Shared Access (LSA) based on a modified working definition for the LSA. The working group is expected to present a draft Opinion for launching a public consultation at the next meeting.
* **Strategic sectoral spectrum needs**: It was reported that the different strategic sectors have been grouped into three categories, where applications within a category can be treated in a similar way and has identified potential for synergies on one of the categories. The working group is expected to present a draft final Report for adoption by the RSPG in June.
* **Preparation of the WRC-15**: A draft Interim Opinion setting out first considerations concerning the main areas of EU policy relevant to the WRC-15 agenda was presented. It was agreed to adopt and then publish the Interim Opinion at the next plenary meeting, while the adoption of the final RSPG Opinion – containing also the common policy objectives – is foreseen as planned for June 2014.
* **Interference Management:** Progress was reported on the issue of receiver parameters and of receiver-only devices and the intention of the working group to provide best practice on key issues such as mobile/broadcasting and mobile/radars at 2.7 GHz was underlined. It is expected that a draft Report for adoption will be presented in June.
1. The EC Councillor also reported that the Commission proposal for a Directive on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment (Radio Equipment Directive)[[3]](#footnote-4) is now under discussion by the European Parliament and the Council of Ministers. During the first discussion Member States provided comments in regard to the exclusion of receive-only equipment from the scope of the new Directive. The Commission services explained the reasons for the approach taken, as identified in the impact assessment, and invited Members States to consider the implications of an inclusion under the scope of receive-only equipment in view of further discussion to be held in the next meeting of the Working Party on Technical Harmonisation in June.
2. The EC Councillor with reference to <https://ec.europa.eu/digital-agenda/en/how-get-involved-eu-radio-spectrum-policy> informed the meeting about the following forthcoming workshops and next meetings in Brussels:

|  |  |
| --- | --- |
| 11/12 June | Expert Group of the R&TTE Directive (public) and 37th meeting of TCAM Committee (governmental observers) |
| 13 June  | RSPG #31  |
| 21 June | Public Workshop: Presentation of the final results of the Commission study on socio-economic aspects of spectrum harmonisation for the benefit of PMSE equipment. Registration: <http://ec.europa.eu/information_society/newsroom/cf/dae/itemdetail.cfm?item_id=10461> |
| 9-10 July | RSC #44 |
| 11 July | Public Workshop: Presentation of final results of the Commission study on spectrum demand |
| 10-11 October | RSC #45 |

***7.2 ETSI recent activity***

1. The ETSI Liaison Officer informed the meeting that additional information on System Reference documents in the drafting stage could be found by reference: [*http://portal.etsi.org/erm/SRdoc\_overview.doc*](http://portal.etsi.org/erm/SRdoc_overview.doc)*.* Information document will be updated soon.
2. In accordance with the cooperation process between ECC and ETSI, WG FM requested the ETSI liaison officer to inform ETSI as appropriate about the approval for public consultation and publication of the following draft ECC deliverables:

**Approved for publication**

* Revised Annex 1 «Non-specific Short Range Devices» of ERC Recommendation 70-03 (see Section 4.9.2).
* Revised Annex 2 «Tracking, tracing and data acquisition» of ERC Recommendation 70-03 (see Section 4.9.2).
* Revised Annex 7 «Alarms » of ERC Recommendation 70-03 (see Section 4.9.2).
* Revised Annex 10 «Radio microphone applications including aids for the hearing impaired» of ERC Recommendation 70-03 (see Section 4.9.2).
* ECC Report 199 «User requirements and spectrum needs for the future European broadband PPDR system (Wide Area Network)» (see Section 4.4.2).

**Approved for public consultation**

* Draft new Decision on the harmonised use of the frequency band 1452-1492 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL) (see Section 4.5.2).
* Draft amended Decision ECC/DEC/(05)02 on a harmonised frequency plan for the use of the band 169.4 - 169.8125 MHz (see Section 4.9.1.1).
* Draft amended Decision ECC/DEC/(06)06 «The availability of frequency bands for the introduction of Narrow Band Digital Land Mobile PMR/PAMR in the 80 MHz, 160 MHz and 400 MHz bands» (see Section 5.3).
* Draft amended ECC Recommendation (11)06 on Block Edge Mask Compliance Measurements for Base Stations, Annex 3 «Assessment of the Block Edge for LTE base stations within the frequency band 791-821 MHz» (see Section 4.1.2).
* Draft revised Annex 10 «Radio microphone applications including aids for the hearing impaired» of ERC Recommendation 70-03 (The band 1800-1804.8 MHz for radio microphones is included with the same parameters as for the 1785-1800 MHz frequency, see Section 4.9.2).

WG FM invited ETSI to note the above mentioned draft ECC deliverables.

**8. Any Other Business**

***8.1 ECO Bulletin and assistance to WGFM***

1. Mr. Thomas Weber (ECO) presented the information on the ECO Bulletin (see Document INFO 008). This ECO Bulletin provides a summary update on aspects of progress in spectrum management elsewhere, especially, in the USA and Canada. In relation to the Agenda of this WG FM meeting Mr. Thomas Weber (ECO) especially brought to the attention the following aspects reflected in ECO Bulletin:
* FCC announces Notice of Proposed Rule-Making for additional WAS/WLAN frequencies in the 5 GHz range;
* FCC narrow-banding approach for digital narrowband PMR/PAMR;
* FCC announces Notice of Proposed Rule-Making for Air-to-Ground Communications within the 14.0-14.5 GHz band;
* Worldwide summary/overview of UHF RFID regulations.
1. WG FM noted with interest this information and expressed its gratitude to the ECO for this document.
2. Mr. Thomas Weber (ECO) presented the Document FM(13)100 focused on ECO activity in providing support and contributions to various FM PTs and MGs as well as maintenance of the WG FM work programme electronic database.
3. Mr. Thomas Weber (ECO) also informed the meeting about on-going development of ECO/CEPT portal and Electronic Working Arrangements in particular with regard to the integration of e-mail reflector which is supposed to be finalized until the next meeting of WG FM.
4. WG FM Chairman thanked ECO for the support and good cooperation.

**9. Report to Next ECC Plenary Meeting**

It was agreed that the WG FM Chairman would prepare a report based on the conclusions of this meeting and present it to the next ECC Plenary meeting.

**10. WG FM Work Programme & Meeting Schedule & Working Methods**

***10.1 Work Programme***

1. Mr. Thomas Weber (ECO) informed the meeting that in cooperation with the chairmen of PTs all new work items have to be incorporated or information on existing work items updated in the ECC work program database <http://eccwp.cept.org/> . This will need to be carried out within one week after the WG FM meeting.
2. WG FM chairman invited all delegates, chairmen of PTs and FGs to review ECC work program database and report about any mistakes or missing information with respect to the working items (WI) of WG FM to Mr. Thomas Weber (ECO) in order to prepare before the next ECC meeting.

***10.2 Schedule of Meetings***

1. WG FM Chairman invited the participants to note the Schedule of Meetings on 2013-2014 and consider possible venues for WG FM meetings in 2014-2015.
2. Italian administration invited WG FM78 meeting to Italy, Montegrotto in September 2013 and informed that all necessary information for participants will be provided soon,
3. Administration of Hungary confirmed that WG FM 79 meeting will be organised in Hungary, presumably in Budapest.
4. The schedule for future WG FM and Project Team physical meetings with indicating ECC, ECC PT1 meetings is as follows:

| **Meeting** | **Date** | **Place** |
| --- | --- | --- |
| 10th FM 49 | 13-14 June 2013 | Oslo, Norway |
| 34th ECC | 18-21 June 2013 | Toulouse, France |
| [SRD/MG ad hoc Draft ECC Report 189 UHF](http://www.cept.org/ecc/groups/ecc/wg-fm/srdmg/client/meeting-calendar/event-details?meetingid=796) | 21 June 2013 | Berlin, Germany |
| 3rd FM 53 | 1-2 July 2013 | Mainz, Germany |
| 9th FM 51 | 9-10 July 2013 | ECO, Copenhagen |
| 27th FM44 | 16-18 July 2013 | London, United Kingdom |
| 59th SRD/MG | 28-30 August 2013 | Vienna, Austria |
| 4th FM 52 | 28-29 August 2013 | Mainz, Germany |
| 9th FM48 | [2-3 / 9-10 September 2013] | Mainz, Germany |
| 10th FM 51 | 4-5 September 2013 | ECO, Copenhagen |
| 4th FM53 | 4-5 September 2013 | Helsinki, Finland |
| 44th ECC PT1 | 9-13 September 2013 | Ljubljana, Slovenia |
| 10th FM 22 | 10-13 September 2013 | ECO, Copenhagen |
| 32nd EFIS/MG | 16-17 September 2013 | Tallinn, Estonia |
| FM Maritime FG | 17-19 September 2013 | Constanta, Romania |
| **WG FM 78** | 30 September – 4 October 2013 | Montegrotto, Italy |
| 35th ECC | 5-8 November 2013 | Berlin, Germany |
| 5th FM53 | 11-12 November 2013 | ECO, Copenhagen |
| 5th FM52 | 13-14 November 2013 | ECO, Copenhagen |
| WG FM Civil/Military | 26-27 November 2013 | Dublin, Ireland |
| 60th SRD/MG | 11-13 December 2013 | TBD |
| **WG FM 79** | 3-7 February 2014 |  [Budapest], Hungary |
| 36th ECC | 11-14 March 2014 | Romania |
| 61st SRD/MG | 23-25 April 2014 | TBD |
| **WG FM 80** | 26-30 May 2014 | Norway |
| 37th ECC | 24-27 June 2014 | Belgium |
| 62nd SRD/MG | 27-29 August 2014 | Biel/Bienne, Switzerland |
| **WG FM 81** | 6-10 October 2014 | TBD |
| 38th ECC | 25-28 November 2014 | Switzerland |

**10 Minutes of the Meeting**

WG FM approved the Minutes of the meeting. It was agreed that the WG FM Chairman and Secretariat could improve the text and correct mistakes as necessary following the meeting.

**11 Closure of the Meeting**

1. The Chairman thanked the Dutch Administration for the good organisation of the meeting and the very interesting visit to the Maritime Museum with many exciting expositions (e.g. earth globes, navy pictures and navigation equipment). He also expressed gratitude for the marvellous boat excursion through Amsterdam canals where WG FM participants could improve the knowledge about Amsterdam and enjoyed the city architecture and the sunny weather.
2. The Chairman thanked the WG FM delegates, the Project Teams, the ECO (Thomas Weber) and the Vice-Chairs, Mrs. Cristina Reis (POR) and Mr. Thomas Weilacher (D), for their assistance.
3. Finally the WG FM Chairman thanked Peter Disseldorp (NL), Eitina Jongejan (NL) and WG FM secretaries for their support to the meeting and wished all the delegates a safe journey home.
1. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:113:0018:0021:EN:PDF [↑](#footnote-ref-2)
2. http://www.rspg-spectrum.eu/consultations/index\_en.htm [↑](#footnote-ref-3)
3. http://ec.europa.eu/enterprise/sectors/rtte/documents/legislation/review/ [↑](#footnote-ref-4)