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| Working Group FM | FM(17)127  |
| 88th Meeting |  |
| Dublin / Ireland15 May – 19 May 2017 |  |
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| **N**Group membership required to read? (Y/N)  |

**1. Opening of the Meeting**

1. The WG FM chairman, Mr Thomas Weilacher (D), opened the 88th meeting of WG FM and welcomed the participants.
2. He thanked the Irish administration for inviting WG FM to Dublin.
3. Dr Samuel Ritchie, Advisor to the Commissioners of the Irish Commission for Communications Regulation (ComReg) welcomed the WG FM delegates to the venue, the Aviva Stadium in Dublin.
4. He gave an interesting overview of the history of the location which is now home of the Irish rugby union team and the Republic of Ireland football team.
5. Finally he remarked that also WG FM meetings should be inspired by sporting spirit which implies among others fair play and teamwork.
6. The WG FM chairman introduced Mr Ali Daheur (D) as the new administrative secretary of the WG FM, replacing Ms Hannelore Schwarz (D).
7. The meeting was attended by 103 delegates from 31 CEPT administrations and 15 international organisations, EC, ECO and ITU. The list of participants is given in **Annex 02**.
8. The list of documents is in **Annex 03**. The list of abbreviations is in **Annex 04**.

**2. Adoption of the agenda, schedule of work**

1. The WG FM chairman introduced the draft agenda and the schedule of the meeting, as provided in document FM(17)068R4. The references to the latest contributions were added; the agenda was adopted by the meeting without further amendments and can be found in **Annex 01** of these minutes.

**3. Report from ECC entities**

***3.1 Report from ECC Plenary***

1. The WG FM chairman introduced the meeting report from the 44th ECC meeting in January/February 2017 (doc. FM(17)076) and highlighted the most relevant aspects. The WG FM meeting took into account the relevant plenary decisions. Annex 1 (List of review of ECC/ERC/ECTRA Decisions) and Annex 2 (CEPT Roadmap on 5G) of doc. FM(17)076 were discussed with regard to the relevant agenda items.
2. The WG FM chairman also informed the meeting that the approval of the amended Rules of Procedures (RoP) will be on the agenda for the next plenary meeting. A new provision is proposed for Article 8, defining that “Working Groups are afforded the necessary flexibility for applying 8.5 for Chairmanship of their Project Teams and Forum Groups while encouraging the principle of rotation of Chairmanships.”

***3.2 Report from WG SE***

1. The WG FM chairman referred to the draft meeting report of the 76th WG SE meeting in May 2017 (doc. FM(17)123). The draft report was not introduced in detail, because WG SE had provided liaison statements for the most relevant items. However, he indicated that the WG FM meeting could refer to specific sections in the draft report if necessary. The liaison statements from WG SE were introduced and discussed with regard to the relevant agenda items.

**4. Work Items in Progress within PTs, FGs and MGs**

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

**4.1.1 Progress Report**

1. The chairman of FM22, Mr Ralf Trautmann (D), presented doc. FM(17)094, the progress report of the project team. FM22 had held one meeting at ECO in Copenhagen since the last WG FM meeting.
2. Regarding the former WI FM22\_30 (monitoring the bands adjacent to the MSS band 406 – 406.1 MHz) he reported that only France had monitored these bands. France will report directly to the ITU-R.

**4.1.2 HF monitoring campaign**

1. The automatic observation of the HF frequency range from several monitoring stations is ongoing.

**4.1.3 Radio interference statistics**

1. Mr Trautmann presented doc. FM(17)086, the results of the 2016 interference statistics. He highlighted an increase of reported interference cases compared to 2015. Again public mobile networks and terrestrial video broadcasting in the UHF band were the radio services suffering from the majority of interference cases. He stressed the fact that comparison of different countries may be misleading. For example, in Finland some 10 000 cases of complaints regarding DVB-T receivers overloaded by LTE emissions were settled between the operators, whereas only the 10 cases where the Finish Regulator FICORA was involved appear in the 2016 statistics.
2. The meeting endorsed the analysis of FM22 which will be published by the ECO (**Annex 36**).
3. Mr Trautmann presented doc. FM(17)104, the Latvian answer to the interference questionnaire. As this was a very late contribution which would not have modified the overall conclusions in doc. FM(17)086, the Latvian numbers were not incorporated in that document as agreed with the Latvian administration.
4. Mr Trautmann introduced document FM(17)087, the draft liaison statement on the interference statistic to ADCO/RED. After some modification, the meeting endorsed the liaison statement with an additional amendment (**Annex 12**).
5. The meeting decided to repeat the questionnaire also for the 2017 interference cases with an additional entry regarding the interferences to meteorological radars operating at 5 GHz.

**4.1.4 Interference to meteorological radars caused by 5 GHz RLANs**

1. Mr Trautmann introduced doc. FM(17)085R1, the draft questionnaire on interferences to meteorological radars caused by 5 GHz RLANs and the French contribution (doc. FM(17)107). The meeting endorsed the questionnaire with some modifications (**Annex 13**).
2. France stated it should be noted that ECC Report 192 clearly indicates that equipment should not have features for the re-configuration of the WAS/RLAN devices, re-enabling DFS (in cases where DFS was disabled) or upgrading equipment (software/hardware) by a vendor or user to comply with European rules or later version of the standard and that market enforcement shall not allow such equipment be operated or remain in use. No effort should be made to solve the interference case while leaving the equipment in operation.
3. The meeting will decide about the need for a repetition of this questionnaire after the evaluation of the responses.
4. ECO noted that due to its structure the questionnaire will be sent out as paper version only. The results will be presented in an Excel spreadsheet.
5. The Wi-Fi Alliance presented doc. FM(17)084, its response concerning interference to meteorological radars in the 5600 – 5650 MHz band. The Wi-Fi Alliance concluded that the existing regulations are adequate and that there is no reason to expect that DFS tampering will remain an issue in the longer term.
6. The FM22 chairman asked to consider the possibility that the DFS mechanism of a RLAN device might not recognise a meteorological radar. He also said that a lot of RLANs with deactivated DFS function are used and that finding these devices is very resource-intensive.

**4.1.5 Revision of ECC/REC/(05)01**

1. The work on the revision of ECC Recommendation (05)01 “Harmonisation of automatic measuring methods and data transfer for frequency band registrations” is progressing (doc. FM(17)094 Sec. 3.3).

**4.1.6 Work related to ITU-R**

1. In January 2017, WG FM finally approved a revised version of ERC Recommendation 54-01 “Method of measuring the maximum frequency deviation of FM broadcast emissions in the band 87.5 to 108 MHz at monitoring stations”. It was planned to revise Recommendation ITU-RSM.1268 in June 2017 accordingly. The discussion on ITU level resulted in further improvements of the draft ITU-R Recommendation. This may result in another revision of ERC Recommendation 54-01.
2. A proposal from the Russian Federation on DVB-T/T2 coverage measurements was discussed at the last FM22 meeting. It was concluded by FM22 that further discussions at ITU level were necessary.

**4.1.7 Physical Cell Identifier (PCI)**

1. No progress to report at this meeting.

**4.1.8 Satellite Monitoring**

1. Mr Trautmann introduced FM(17)078, the leaflet about the satellite Memorandum of Understanding (SAT MoU). The Sat MoU provides the possibility for any CEPT administration to access and undertake satellite monitoring activities. Interested administrations are invited to join the Sat MoU (recognising a membership fee is involved).
2. The Sat MoU leaflet can be found in **Annex 17**.

**4.1.9 Other Issues**

1. The next meeting of FM22 will be held from 19 – 22 September 2017 in Riga / Latvia.

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

**4.2.1 Progress Report**

1. Mr Amar Saidani (F), the FM44 chairman, presented the progress report of the group as in document FM(17)105.
2. The FM44 chairman highlighted the following activities:
3. The revision of ECC Report 66 concerning HIRF protection of aircraft from earth stations emissions (Work Item FM44\_27);
4. Fixed and in-motion earth stations operating to NGSO systems in 10.7-12.75 GHz (space-to-Earth) and 14-14.5 GHz (Earth-to-space) (Work Item FM44\_28);
5. Resolution of comments from public consultation for draft ECC Decision (17)CC and draft ECC Decision (17)DD;
6. A report on the satellite contribution to 5G;
7. M2M via satellite (see **AI 5.5.1**).

**4.2.1.1 Draft ECC Decision (17)CC on withdrawal of ERC/DEC/(98)15**

1. No comments were received during the public consultation.
2. WG FM adopted the draft ECC Decision (17)03 on the withdrawal of ERC/DEC/(98)15 (“Exemption from Individual Licensing of Omnitracs terminals for the Euteltracs system”) for submission to the ECC for final approval for publication (**Annex 06**).

**4.2.2 Ku band, 11/12/14 GHz**

1. The WG FM chairman presented the LS from WG SE, document FM(17)117, updating on-going WG SE activities.

**4.2.2.1 Draft new ECC Decision (17)DD on “The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS systems in the frequency bands 10.7 – 12.75 GHz and 14.0 – 14.5 GHz”**

1. During the public consultation comments were received from Portugal. The project team chairman presented the resolution table prepared by FM44 and the modifications were accepted by the WG FM meeting.
2. The FM44 chairman proposed to submit the draft ECC Decision to the ECC for final approval for publication.
3. The Russian Federation objected to the proposal because the technical compatibility studies being carried out by WG SE and SE40 had not been published. In the absence of such an ECC Report the Russian Federation was unable to assess the impact from these earth stations on other services. The Russian Federation suggested that the approval of this ECC Decision should be postponed until the finalisation of the work of WG SE.
4. Switzerland supported the submission to the ECC and the approval of the draft ECC Decision and highlighted that postponing the approval had not been proposed during the public consultation.
5. The project team chairman explained that the work on this ECC Decision had been finalised taking into account liaison statements between SE40 and FM44. It had been concluded that fixed earth stations considered in this ECC Decision and their impact on other services was sufficiently addressed, therefore the operation of uncoordinated fixed earth stations shall provide necessary protection to other services.
6. The UK supported the views expressed by the project team chairman. The UK stated that issues raised by the Russian Federation had been addressed at the previous WG FM meeting and the draft ECC Decision should be approved for submission to the ECC.
7. The WG FM chairman recalled that the same discussion had been raised before sending the document to public consultation where WG FM had clearly understood the incompatibility between fixed earth stations and other services, and that will not be changed due to any conclusion of the SE40/WGSE ECC Report. He also agreed that it may be unconventional for WG FM to approve an ECC Decision while related technical studies are being finalised by WG SE, but it’s clear that nothing in the WGSE ECC Report will impact on this Decision, for this reason the work on this ECC Decision had been progressed to public consultation and now for approval and submission to the ECC. He also noted that Portugal made comments during the public consultation and they were mainly editorial.
8. The Russian Federation strongly recommended to the FM44 project team to draw attention on the technical results for in-motion NGSO earth stations when continuing activities of the Work Item. The project team chairman recalled that its progress report to this meeting explicitly mentioned that FM44 had decided to wait for the final technical results under WI SE40\_28 before starting to draft the new ECC Decision on in-motion NGSO earth stations. The work is currently focused on the preparation of a draft ECC Report specifically dealing with regulatory issues and justifications of the different options that could be handled in the future draft ECC Decision for in-motion Ku band NGSO earth stations.
9. The chairman asked whether any other administration has a concern or objection for the approval of ECC Decision (17)DD and its submission to the ECC. No additional administration objected.
10. WG FM adopted the draft ECC Decision (17)04 on “The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.7 - 12.75 GHz and 14.0 - 14.5 GHz” for submission to the ECC for final approval for publication (**Annex 05**).

**4.2.2.2 Draft new ECC Decision regarding land-based in-motion earth stations operating with GSO FSS systems in the frequency bands 10.7 – 12.75 GHz and 14.0 – 14.5 GHz**

1. The project team chairman informed the meeting that this FM44 task had not begun and the project team needs to wait for the first SE40 technical results before initiating the work on this draft new ECC Decision.

**4.2.3 ECC Report 66**

1. The project team chairman informed the meeting about the progress achieved and explained that first promising results had been provided by SE40 for the maximum e.i.r.p. that airborne earth stations could use without constraints even inside airport to provide broadband communications to passengers on the ground. The work is still in progress.
2. WG FM agreed on an extension of the target date for the FM44 tasks to align them with the delay requested by SE40 in WG SE. The project team chairman informed the meeting that following the completion of the revision of the ECC Report 66 by WG SE, the FM44 project team will identify the modifications implied in ECC Decisions dealing with C, Ku, Ka band satellite terminals that are exempted from individual licensing and also assist administrations which want to use the methodology of the revised ECC Report 66 at national level for coordinated earth stations.

**4.2.4 New draft ECC Report on satellite solutions for 5G**

1. The project team chairman informed the meeting that FM44 just initiated a draft ECC Report that could be presented during the next WG FM meeting and sent to ECC/PT1 for comments after the FM44 meeting in November 2017.

**4.2.5 Other issues**

1. The WG FM chairman presented the LS from WG SE, document FM(17)118, dealing with a new work item opened for SE40 on uncoordinated FSS GSO earth stations in the 28 GHz band. The document was sent for information.
2. The WG FM chairman presented the LS from WG SE to Sat MoU, document FM(17)119 (see **AI 4.1.8**), and the meeting noted the updated schedule of the measurement campaign for the unwanted emission of the Iridium NEXT constellation. WG FM will continue to monitor these activities.
3. The project team chairman explained that FM44 considered the output of the last WG FM meeting dealing with M2M via satellite. He informed the meeting that participants of the last FM44 meeting decided to propose an extension of the FM44 tasks to frequency bands beyond 1 GHz and other technologies than SRDs (see also **AI 5.5.1**).

***4.3 FM PT 51 (PMSE)***

**4.3.1 Progress Report**

1. The chairman of FM51, Mr Lindsay Cornell (UK), presented the progress report of the 23rd meeting of the project team (doc. FM(17)090) which was held at ECO Copenhagen from 23 to 24 March 2017.
2. FM51 had continued to progress on its work plan.
3. Regarding work item FM51\_05, in relation to ITU-R Resolution 59-1 on ENG, FM51 had developed a contribution to ITU-R WP 5C on behalf of CEPT.
4. Regarding work item FM51\_08, the aim of which is to collect and summarise data related to body effect for handheld and body-worn audio PMSE devices in order to identify a model to be used in future sharing studies, the work is currently at an early drafting stage.
5. Regarding work item FM51\_09, to develop a new ECC Report on best practice for the use of Video PMSE in the 2.7-2.9 GHz band, the work is ongoing.
6. Regarding work item FM51\_10, to develop deliverables on the preliminary investigations on regulatory and legal issues for PMSE sharing in the 960-1164 MHz band, FM51 had further developed the background information for the liaison statement to WG SE, but the LS itself is unchanged. The work on legal and regulatory matters is also ongoing, with emphasis on structuring the information.
7. The next meetings of FM51 will be held on 11-12 July 2017, in Lillesand, Norway at the kind invitation of the Norwegian Communications Authority and on 20-21 September 2017 (to be confirmed), at ECO, Copenhagen.

**4.3.2 Spectrum for PMSE**

**4.3.2.1 Audio PMSE, low power audio PMSE in the band 960 – 1164 MHz**

1. ICAO introduced FM(17)080, their response to the letter from WG FM regarding preliminary studies concerning low power audio PMSE and aeronautical services in the band 960 to 1164 MHz. The contribution included information on management of the systems in the band, standards, and certification. ICAO emphasised that the process to adopt the JTIDS military system had involved more than 20 years of testing to ensure compatibility with existing systems. ICAO further stated that the band is fully occupied with safety critical aeronautical systems and any equipment operating in the band must be certified to completely comply with appropriate standards. ICAO looks forward for further cooperation with CEPT on this subject. In summary, ICAO opposed sharing the band unless certain conditions, detailed in the letter, are met.
2. Eurocontrol introduced FM(17)101, a letter to WG FM from IATA expressing a strong opposition to the introduction of any new system in the 960-1164 MHz frequency band unless the new system can fully satisfy all conditions required by ICAO supporting the contribution from ICAO and offering assistance to CEPT as required.
3. Austria noted that all changes of use in the 960 to 1164 MHz band needed to be agreed with national authorities, including the future introduction of LDACS, for example.
4. France observed that the 960 to 1164 MHz band is internationally harmonised for aeronautical systems and therefore the occupation of the band will vary between different countries.
5. NATO reiterated that they were taking care of military issues and had concluded at a CAP3 meeting in March 2017 that NATO would provide input to the technical studies given their expertise and familiarity with compatibility studies in the 960 to 1164 MHz band.
6. Russian Federation observed that ICAO and IATA had raised opposition to sharing the 960 to 1164 MHz band with non-aeronautical services and proposed that the legal and regulatory issues raised should be further explored in FM51 before asking technical studies in WG SE. The Russian Federation regretted that the Report on legal and regulatory issues was not available for this WG FM meeting. The FM51 chairman confirmed that, as noted in his progress report, this work was ongoing.
7. The WG FM chairman reminded the meeting that the WI had started six months before with two tracks which should be completed in parallel, and that this had been discussed extensively at the previous WG FM meeting. He stated that parallel studies are usually done in WG FM and WG SE because both aspects are needed to form a final view. He highlighted the four step process that had been agreed at the previous meeting of which three had been completed.
8. The WG FM chairman introduced document FM(17)090 - Annex 1 which contained the draft LS to WG SE to request technical studies. The document was analysed paragraph by paragraph.
9. The Russian Federation stated that issues related to the assessment of amount of spectrum that could be used for low power audio PMSE in the band 960-1164 MHz are out of the scope of the WG SE and should be considered by WG FM. Therefore it was proposed to exclude corresponding tasks from the draft LS to WG SE.
10. After discussion, some rewording was agreed to the final bullet points in the LS to WG SE which was approved and is attached as **Annex 14**.
11. The WG FM chairman introduced document FM(17)090 - Annex 2 which contained the background information to the LS.
12. The Russian Federation provided updated information and changes were agreed to tables 2, 3 and 4. The revised document was approved and is attached as **Annex 15**. It will be attached to the LS to WG SE.
13. France noted that the letters from ICAO and IATA provided information that would assist with the legal and regulatory aspects of the work in FM51, including economic issues, and the technical studies in WG SE, and as such should be considered in the relevant project teams. This was agreed.
14. It was noted that FM51 had already uploaded both letters and the WG FM meeting had the view that WG SE, its relevant PT and FM51 should also take into account these two contributions.

Statement of Italy, Russian Federation:

*Italy is against to this study and to the creation of a new Work Item. Taking into the consideration the current usage of the band 960-1164 MHz for aeronautical radionavigation systems, we are at the point that there is no place to allocate new PMSE devices which may impact systems responsible for aeronautical safety and other important military systems. Italy fully supports the position of ICAO, IATA, Eurocontrol concerns as well.*

**4.3.2.2 Body effect of handheld and body worn audio PMSE equipment**

1. The FM51 chairman reported that inputs had been received and an initial structure had been developed.

**4.3.2.3 Best practises for video PMSE in the 2.7 – 2.9 GHz band**

1. The FM51 chairman reported that the development of the report continues.

**4.3.3 Work related to ITU-R**

1. The FM51 chairman introduced FM(17)090 - Annex 3, a contribution to ITU-R WP 5C in relation to ITU-R Resolution 59-1 on ENG, and input by Germany on behalf of CEPT. The contribution sets out the national implementation information in ERC/REC 25-10 from EFIS. The input was well received by ITU-R WP 5C.

**4.3.4 Other issues**

1. See also **AI 4.8.2**.

***4.4 FM PT 54 (PMR, PAMR)***

**4.4.1 Progress Report**

1. The FM54 chairman, Mr Kuha Sithamparanathan (UK), presented the group’s progress report, covering the last two meetings held in Biel/Bienne, FM54#14 (22-23 March 2017) and Copenhagen, FM54#15 (8-9 May 2017).
2. The progress report consists of a summary, document FM(17)125, and five annexes as below:
* Annexes 1 and 2: minutes FM54#14 and draft minutes of FM54#15;
* Annex 3: Latest Draft ECC Report on “Current Use, Future Opportunities and Guidance to Administrations for the 400MHz PMR/PAMR frequencies”;
* Annex 4: Latest Draft new ECC Decision;
* Annex 5: Latest draft investigation on 47-68 MHz.

**4.4.2 Draft ECC Report on current use, future opportunities and guidance to administrations for the 400 PMR/PAMR frequencies**

1. Project Team FM 54 had continued with the development of the draft new ECC Report on PMR/PAMR in the 400 MHz range and WG FM was requested to note this.
2. FM 54 noted that there were no work items for harmonised standards under RE-D in ETSI with regard to 1.25 MHz CDMA.
3. There was also no harmonised standard for LTE in 450 - 470 MHz in preparation, but only for PPDR LTE. EN 301 908 standard series had not covered the band 450 - 470 MHz yet. It seemed likely that ETSI/interested parties were awaiting an ECC deliverable before embarking on any work towards LTE PMR/PAMR standards.
4. Regarding alternative spectrum for PMR/PAMR, a section had been added in the draft ECC Report but no proposal for specific spectrum to consider had been made.
5. FM54 considered that the existing terminology ‘land mobile systems’ and ‘PMR/PAMR’ is sufficient and there is no need to add additional terminology or ‘umbrella terms’. IoT and M2M are too descriptive and additional terminology carries the danger that it could lead to fragmentation. A chapter had been added to the draft ECC Report explaining these considerations.
6. France commented that there was no hurry and that SE7 should be given time to conduct its studies in this band.
7. An LS received from WG SE / SE7 was considered and WG FM agreed an LS (**Annex 16**) in response with regard to the question raised about 200 kHz technologies described in draft ECC Report 266. Contributions to the work in SE7 are urgent from those stakeholders using different technologies, should they want a technology different from NB-IoT and LTE-(e)MTC to be considered. The LS also draws the attention of SE7 to the protection of the radio amateur service in the band 430 - 440 MHz as noted by IARU-R1 and Italy.
8. Recommendation T/R 25-08 uses the terminology ”land mobile systems”. The draft ECC Report as well as the new draft ECC Decision will not distinguish between “narrowband”, “wideband” and “broadband” systems but refer as appropriate to the respective channel spacing.
9. The WG FM meeting endorsed the way forward on the use of terminology.

**4.4.3 Draft new ECC Decision on land mobile systems replacing ECC Decisions (04)06 and (06)06**

1. WG FM noted the ongoing development of the draft new ECC Decision and the need to consider the SE7 study results during the ongoing work in FM54.

**4.4.4 Review of ECC Decision (11)04**

1. The plan is to add a new ‘decides’ in the new draft ECC Decision stating that administrations shall exempt from individual licensing and allow the free circulation and use of terminals of land mobile systems operating under the control of a network. This would cover the needs for all terminals except for PPDR. FM54 sees no value keeping a provision for PPDR terminals since the vast majority of PPDR terminals has DMO implemented and do therefore not fall under the scope of ECC/DEC/(11)04.
2. Prior to making a final decision, it seemed appropriate to inform ETSI, LEWP, PSRG that the concept is to cover the PMR/PAMR part in the new ECC Decision and to withdraw ECC/DEC/(11)04 because it is not considered necessary for PPDR.

**4.4.5 Revision of Recommendation T/R 25-08**

1. Recommendation T/R 25-08 is deemed to provide appropriate flexibility in terms of ensuring new/innovative channel bandwidths can be accommodated in future.
2. FM54 waits for the results of the work in SE7.

**4.4.6 Work related to ITU-R**

1. None.

**4.4.7 Other issues**

1. A more detailed investigation about the range 47-68 MHz (included in the T/R 25-08 band plan) using the EFIS database and national available information to get an overview about which countries have PMR/PAMR solutions in these frequencies is ongoing in FM54, but had not been finalised yet. This band will not be covered by the new ECC Decision.
2. See also **agenda items 5.2.2 and 5.6**.

***4.5 FM PT 56 (Railway applications)***

**4.5.1 Progress Report**

1. The FM56 chairman, Mr Vincent Durepaire (F), presented the group’s progress report (doc FM(17)099) covering its first meeting in Lille / France on 27-28 March 2017.

**4.5.2 Work plan of FM56**

1. WG FM endorsed the two-step approach proposed by FM56: first assess the spectrum requirements in ECC Report #A; then evaluate the candidate bands for the implementation of the successor to GSM-R in ECC Report #B. This work is intended to be completed by the creation of a new ECC Decision.
2. The first draft ECC Report #A on the assessment of the target spectrum needs was also introduced. The proposed draft structure was endorsed by WG FM.
3. The UIC representative introduced its contribution (doc FM(17)098) where concerns are raised with regard to the different timelines between the FM56 work and the ongoing activities on SRDs in the bands 870-876 MHz and 915-921 MHz.
4. The WG FM chairman reminded the meeting that ECC already submitted its reply to the EC Mandate on SRD (6th update). Further discussions are now in the hands of the Commission and the Member States at the RSCom.
5. The Commission representative informed the meeting that a “workshop on efficient use of spectrum in the bands 870-876 MHz and 915-921 MHz” for stakeholders and member states will be held on 19th June in Brussels (Centre des Conférences Albert Borschette), see also **AI 7.1**.

**4.5.3 Work related to ITU-R**

1. WG FM noted that a dedicated web-meeting on WRC-19 AI 1.11 related contributions will be set up before the next CPG PTD meeting in September 2017.

**4.5.4 Other issues**

1. France suggested (in doc FM(17)106) not to use the acronym FRMCS, “Future Railway Mobile Communication System”, to designate the successor to GSM-R and proposed instead “MCR” for “Mobile Communications for Railways” as a generic term. France also proposed to include this term in the EFIS Decision - Annex 2 before sending it to public consultation.
2. UIC confirmed that FRMCS is the name of the project dealing with the successor system within the railway community and not the name of a system. It is referred in several UIC deliverables but an alternative name could be identified jointly.
3. The WG FM chairman reminded that the addition of a new acronym in the EFIS Decision usually occurs once an ECC deliverable is published. So from that point of view there is no urgency to amend the EFIS Decision at this stage
4. France mentioned that 3GPP had opted for a different name: “Mobile communication system for railways”.
5. WG FM concluded that FM56 should further consider this and should avoid terminologies such as “future” to designate the successor to GSM-R and could e.g. consider using the 3GPP terminology if relevant.

***4.6 Short Ranges Devices / Maintenance Group***

**4.6.1 Progress Report**

1. Mr Thomas Weber (ECO), the SRD/MG chairman, presented the progress report of SRD/MG as in document FM(17)091rev1. WG FM endorsed the actions of the SRD/MG on the items reported under section 4.6 of the present report.

**4.6.2 ECC/ERC Decisions and Recommendations**

**4.6.2.1 ECC/DEC/(06)04 on UWB below 10.6 GHz**

1. The new permanent Mandate on UWB was noted. Mr Weber reported that SRD/MG had already started work. The delivery of the CEPT Report is planned for the 1 November 2018 with all the technical parameters required to amend Decision 2007/131/EC to be presented.
2. This includes first considerations of the two new ETSI System Reference Documents on Medical UWB - ETSI TR 103 313 and ETSI TR 103 314 regarding amended mitigation techniques.
3. Furthermore, the liaison statement from ETSI including a PowerPoint presentation of the items to be considered in doc. FM(17)079 and an overview prepared by the SRD/MG chairman on the UWB use cases were introduced to be considered for investigation.
4. Work on vehicular access systems is already on-going in SE24 and a first draft ECC Report is available.
5. The discussions on UWB may include considerations:
* how the medical sensors can be made part of the regulation for material sensing,
* how to harmonise limits and mitigations amongst the various UWB use categories,
* on the inclusion of new mitigations,
* on including an interference management system based on detection.
1. For UWB on-board aircrafts (ECC/DEC/(12)03), there is a harmonised standard under preparation in ETSI, and the situation will also be reviewed.
2. The process will lead to the creation of the CEPT Report and also most likely to the revision of the ECC Decision (06)04 and ECC Decision (07)01.
3. WG FM agreed to request WG SE to conduct studies with regard to this intended update of the UWB regulatory framework. The results of the studies shall be available by September 2018 to be included into the CEPT Report to answer the permanent EC Mandate on UWB in November 2018, see **Annex 032**.
4. SRD/MG expects that not all requests/questions included in the two new ETSI System Reference Documents will require detailed studies but can rely on an evaluation of currently available information in existing ECC studies.
5. WG FM also received a presentation about UWB applications from Decawave, presented by Mr Neirynck, as in doc. FM(17)INFO006.
6. A first draft skeleton of the draft CEPT Report prepared by SRD/MG was noted.

**4.6.2.2 ECC/DEC/(15)05 on PMR446 (466.0 – 446.2 MHz)**

1. The draft revised ECC Decision (15)05 on PMR446 was approved by WG FM for public consultation (see **Annex 33**). The public consultation is scheduled to end on 15 August 2017.
2. The revision includes amendments in the main body text with regard to the mentioning of the RE Directive and the reference to the harmonised standard EN 303 405. A sentence in the introduction was deleted since it was considered as not relevant for PMR446. Otherwise, the decides part and all frequency use relevant parameters are unchanged.
3. The definition in Annex 1 of the ECC Decision was amended to include the possibility of hands-free use cases, e.g. in vehicles.
4. SRD/MG will review the footnote for PMR446 as in CEPT Report 59 (Annex 3 of the CEPT Report) within the 7th update process of the EC Decision for SRDs for possible clarification. The current change is not seen as in contradiction to what was proposed in CEPT Report 59.

**4.6.2.3 ECC/DEC/(08)01 on ITS (CBTC/ITS)**

1. The progress of work in SRD/MG with regard to the development of a new ECC Report was noted. The working assumptions as defined by WG FM and set out in the liaison statement to ETSI from WGFM#87 are still valid with regard to shared spectrum use. The draft ECC Report will provide information about all possible sharing options for CBTC/ITS. The latest draft revised ECC/DEC/(08)01 was provided for information.
2. Mr Weber (ECO) reported that ETSI had an approved work item for the creation of ETSI TS 103 518 for CBTC/ITS sharing solutions. In addition, a new work item for further revision of ETSI EN 302 571 was in process of being approved in ETSI.
3. Mr Weber clarified, that the revised ECC/DEC/(08)01 will provide the technical requirements in a technology-neutral way and that no application will be excluded for any spectrum in 5875‑5925 MHz. It is expected that the related EC Decision and the harmonised standard will also be technology-neutral in this regard.
4. The meeting noted the information from the EC that a Mandate for the revision of the EC Decision for ITS is at an early stage of consideration. This may include coverage of the whole frequency range 5875-5925 MHz and may remove restrictions, e.g. applications such as Urban Rail CBTC can fall under the revised EC Decision. See also **agenda item 7.1**.
5. Mr Weber reported that Volkswagen announced to build-in first implementations based on IEEE 802.11/11p/ETSI G5 as of 2019 in the Golf and other cars.
6. Mr Weber reported about developments in 3GPP with regard to the ongoing specifications for V2X and proposals for the frequency usage by V2X in 3GPP band 47 (i.e. the 5.9 GHz band) and also proposals for band combinations. SRD/MG will monitor and discuss their relevance for the on-going work.
7. In light of the recent RSPG Opinion on ITS Mr Weber drew the attention to the fact that lack of coexistence and interoperability rules for ITS technologies in relevant European standardisation bodies could create a problem in the future. The guidance from WG FM is that technology neutrality and sharing should be the principles for the further work.

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

1. WG FM noted the outcome of the public consultation for ERC/REC 70-03 – main texts, Annexes 9 and 10, and the report from the SRD/MG on comments resolution.
2. WG FM approved revisions in the main texts and in Annexes 9 (inductive applications) and 10 (wireless audio and multimedia, radio microphones, assistive listening devices) of ERC Recommendation 70-03 for SRD for publication (see **Annexes 22, 23, 24**).
3. WG FM approved draft revisions in the Annexes 1 (non-specific SRD), Annex 2 (data acquisition, tracking and tracing), Annex 3 (wideband data transmission systems), Annex 5 (transport and traffic telematics), Annex 9 (inductive applications) and Annex 12 (medical implants) of ERC Recommendation 70-03 for public consultation. The public consultation is scheduled to end on 15 August 2017. See Annexes **25, 26, 27, 37, 28, 29**.
4. Switzerland informed the meeting that it would not oppose to the public consultation of Annex 1 of ERC/REC 70-03, but will be unable to implement the new entry, because the band 862 - 863 MHz is used for another application.
5. The changes proposed in the new draft revisions include alignments following the CEPT Report 59 and new entries for SRDs in 862-863 MHz, for SRDs in data networks (within 865-868 MHz), wideband data transmission systems in data networks (863-868 MHz) and ultra-low-power wireless medical capsules for endoscopy in 430-440 MHz.
6. New entries and changes in the bands 870-876 MHz and 915-921 MHz will be considered when the discussions at European Union level for the bands 870-876 MHz and 915-921 MHz will be stable.
7. The SRD/MG chairman proposed to wait with a further revision of Annex 10 of ERC/REC 70-03 for Assistive Listening Devises (ALS, also known as Telecoil Replacement Systems (TRS)) until WG SE has approved the related draft ECC Report for public consultation. In addition, he outlined that other items need to be considered for Annex 10, such as the 200 kHz bandwidth restriction in the 800 MHz duplex gap (the ETSI SRdoc on WMAS under preparation is expected to be relevant) and a review of the entry in 1492-1518 MHz, monitoring the developments towards a new ECC Decision and CEPT Report in ECC PT1 for MFCN SDL.
8. Following a proposal from the United Kingdom in doc. FM(17)111, and after discussions in WG FM, the meeting agreed to add a clarifying note into the draft revised Annex 5 for public consultation (see **Annex 37**): *Note for the public consultation with regard to the proposed change for band entry f1 (76-77 GHz): WG FM tasked the SRD/MG to continue discussions about how exactly the results set out in ECC Report 262 should be applied in ERC/REC 70-03 Annex 5. Administrations and Stakeholders are requested to provide comments within the public consultation in support of the further discussions in SRD/MG and WG FM. The primary goal of the public consultation for the proposed changes below in band entry f1) should therefore be understood as to get contributions from concerned stakeholders.*
9. WG FM agreed to request ETSI to clarify the application of harmonised standards for 500 mW UHF SRD in data networks, see the liaison statement to ETSI ERM in **Annex 30**. The SRD/MG chairman outlined the importance to monitor how requirements for network access points will be set out in the related harmonised standards, including their related duty cycle specifications, to be in line with the assumptions made in the regulatory approach.
10. The liaisons statement from WG SE to WG FM on SE24 related issues (doc. FM(17)121) was taken into account.

**4.6.4 EC related activities**

1. The SRD/MG chairman reported about:
* For ADCO RED it was noted that market surveillance authorities in ADCO expect a clarification in ECC/DEC/(15)05 concerning the handheld use/ hands-free use.
* In the context of the 6th update of the SRD Implementing Decision, the RSC discussed the implementation of the additional entries proposed in the Addendum to CEPT Report 59. These entries are predominantly for IoT and RFID applications. The entries in the band 863-868 MHz will be integrated into the existing SRD Decision noting their consistency with the harmonised sharing environment established therein, and to treat the entries in the 870-876 MHz and 915-921 MHz bands separately. Member States' agreement to this approach led to a stable text of the draft Implementing Decision, and it is expected that the Implementing Decision could be approved in summer 2017 (vote in RSC in July).
* The European Commission presented its view on the main elements for a separate draft Implementing Decision concerning the entries in the 870-876 MHz and 915-921 MHz bands. Some Member States indicated that the implementation of the proposed entries for networked SRDs and RFIDs may currently not be feasible on their territory due to their need to protect existing services, some Member States raised concerns about fragmentation across the EU. The RSC will continue its discussions on these bands based on further analysis of the current situation and available policy choices. After the RSC meeting in March 2017, feedback from Member States was collected. Further input from stakeholders will be collected by the EC, see also **agenda item 4.5.2**.
* SRD/MG considered the RSPG Opinions on IoT/M2M and ITS. On ITS, the RSPG Opinion was seen as an important guidance when considering the Urban Rail/ ITS case (revision of ECC/DEC/(08)01). The spectrum designation in 5875-5905 MHz is technology neutral. The RSPG did not take a view on the choice of technology since this is not a matter of spectrum regulation. However, the co-existence between different ITS technologies is not guaranteed by the designation. There is a risk that the development of potentially competing technologies for ITS in the same band could impact on the robust and safe operation within 5875-5905 MHz. It is important that in-band co-existence, inter-operability and cross-border operation of ITS is ensured, especially for traffic safety-related ITS. The European Commission was therefore invited to consider whether action is necessary to ensure interoperability between ITS equipment and how the development of coexistence and interoperability rules for ITS technologies can be defined by the relevant European standardisation body.
1. A draft of the next guidance letter for the 7th update process of the EC Decision for SRDs is envisaged to be discussed at the RSC meeting in July 2017 and should be approved and sent out during the summer. The schedule is roughly foreseen for delivery of the CEPT Report before the end of 2018. There was a discussion in SRD/MG on request form the EC representative in SRD/MG about what could be a subject of the guidance letter and points are listed in the SRD/MG progress report (minutes from the last SRD/MG meeting).

**4.6.5 Review of 5805 – 5815 MHz**

1. ETSI had approved a new work item to develop a System Reference Document (SRdoc) for both Smart Tachograph and Weight & Dimension (TR 103 441). This System Reference Document is needed to provide parameters which cannot be taken from Appendix 14 of Commission Implementing Regulation (EU) 2016/799 and which are needed for the investigations in SE24. Some stakeholders in ETSI are prepared to support the work but unfortunately, the Commission had not been able to support the work in ETSI so far. The risk is now that the investigations cannot be conducted within the timeframe of the 7th update. It was agreed that the WG FM chairman will stress this aspect at the next ECC meeting and ECC Steering meeting and a possible solution is seen that the Commission starts an activity to ensure the creation of the ETSI SRdoc in time for the needed studies in WG SE/SE24. The risk is that these new applications are implemented without proper frequency regulation.
2. SRD/MG noted the lack of a number of parameters in SE24. This includes inter-alia the density of interrogator equipment (different amount of enforcement equipment in different countries). For some countries some few units and for other countries several hundreds will be deployed; activity factors, open questions about the use cases, mounting positions, antenna pattern, protection criteria, etc. An overview about these parameters was brought to the attention of the WG FM in the doc. FM(17)113 from WG SE.

**4.6.6 Coexistence of RLANs in vehicles**

1. SRD/MG awaits the results of the studies in WG SE / SE24 about SRD usage in cars equipped with 5.8 GHz road toll equipment, RLAN use based on the 5.8 GHz SRD regulation (25 mW) as well as co-channel ITS communications (5855-5875 MHz) and noted the information form WG SE about the progress in SE24.
2. Doc. FM(17)100 from Germany was provided to WG FM, containing information about measurements regarding the impact on TTT in the 5795 - 5815 MHz (on the OBUs). These results can also be relevant for the considerations about Smart Tachograph and Weight & Dimension applications.

**4.6.7 SRDs in UHF**

1. WG FM agreed to send a response back to WG SE clarifying the scope of the work item SE24\_61 with regard to the technologies which should be considered for SRD data networks with wider coverage, see **Annex 35**.

**4.6.8 ULP wireless medical capsule endoscopy**

1. See agenda item 4.6.3.

**4.6.9 ALD/TRS further harmonisation possibilities**

1. See agenda item 4.6.3.

**4.6.10 Wireless Power Transmission (WPT)**

1. SRD/MG is waiting for the results in WG SE concerning the possible relaxation of limits in 79-90 kHz. Mr Weber reported about the discussions in SRD/MG and the overall situation:
	* + - The progress of work in SE24 was noted. There is no draft ECC Report yet but expected to become available in September 2017. It was pointed out that the SE24 WI contains two parts, the first one is to assist CPG PTD in preparations for the WRC-19 AI 9.1.6 and the second one has broader scope including other kinds of WPT systems/devices (other than EV). SE24 also developed an LS in response to the CPG PTD request. SE24 is asking for clarifications and guidance for frequency bands to be taken into consideration in SE24 studies supporting WRC-19 AI 9.1.6.
			- The first studies in SE24 focus on Wireless Power Transmission (WPT) systems for Electric Vehicles (EV) operating in the frequency band 79 - 90 kHz. Other frequency bands identified by CPG PTD for WPT for EV may be considered in the study. In a second step, an extension of the study for other kinds of WPT systems/devices (other than EV) and for other frequency ranges e.g. 19-21 kHz, 58-62 kHz and 100-300 kHz could be expected. A possible extension target date could be September 2018 for the studies in SE24.
			- The progress of work in ETSI was noted on ETSI EN 303 417; Wireless power transmission systems, using technologies other than radio frequency beam, in the 19 - 21 kHz, 59 ‑ 61 kHz, 79 - 90 kHz, 100 - 300 kHz, 6 765 - 6 795 kHz ranges. The draft EN was currently in remote consensus for submission to go to the ETSI national vote procedure.
			- SRD/MG will start discussing in September 2017 the possibilities for the regulatory framework. The main question will be whether the limits should be under the generic inductive limits (WPT everywhere?), under a separate application terminology or proposed to be included in ERC/REC 74-01 (e.g. out-of-band domain of the WPT emission).
			- Some discussion arose during the SRD/MG meeting about test results for electrical vehicles using 3 kW or 7 kW WPT, whether a relaxation is needed and whether the impact may be wider than only considering 79-90 kHz.
			- The ETSI System Reference Document TR 103 409 proposes for WPT-EV systems to review the present regulation and change the limits in the frequency range from 79 - 90 kHz to 82 dBµA/m (at 79 kHz, descending with 3 dB/oct.).
			- ETSI will prepare another System Reference Document TR 103 493 (for all other WPT applications) to show the real needs of the industry (the wireless power consortium will contribute to this too).

**4.6.11 Wideband Data Transmission Systems in 57-66 GHz**

1. The SRD/MG chairman provided the progress report from SRD/MG. This included the on-going working document and liaison statement which was sent to SE19 (cc to WG SE).
2. The request from WG SE for additional information in doc. FM(17)120 was discussed.
3. WG FM agreed to request WG SE to conduct studies for fixed application in the 57‑66 GHz range for small cells backhauling and fixed wireless access, providing also technical information as requested by WG SE for the start of a work item in WG SE. The work in WG SE/ SE19 should be conducted in close cooperation with SRD/MG. See **Annex 34**.

**4.6.12 UWB for medical applications**

1. See agenda item 4.6.2.1

**4.6.13 Amended mitigation techniques for UWB**

1. See agenda item 4.6.2.1

**4.6.14 ITU-R contributions**

1. No action at this meeting but the SRD/MG progress report includes in chapter 6 of the SRD/MG minutes from the last meeting an overview of the relevant work in progress which will be discussed in ITU-R SG1/WP 1B in June 2017. In particular, it is expected that the PDNR on SRD categories will be finally approved in SG1. In addition, Recommendation ITU-R SM.1896 for the global harmonisation of UWB SRD applications is in a revision process.

**4.6.15 Other issues**

1. WG FM agreed to request WG SE to conduct studies on a detection/collision avoidance application in 446-457.1 kHz, see **Annex 31**. The main benefit of the application is to detect many persons or objects in the same location instead of only 1. The work in SRD/MG on this issue was supported by Denmark, France, Germany, Norway, Sweden, Switzerland, and the United Kingdom.
2. WG FM agreed that SRD/MG should consider an explanatory document on the possibilities for use of non-professional UAS under the current regulation, once ECC Report 268 will have been published. This concerns in particular clarifications about the use of the 5 GHz WAS/RLAN regulation since this aspect is not addressed in the current EC and ECC Decisions.

***4.7 ECC PT1 (MFCN)***

**4.7.1 Progress report**

1. The progress report of ECC PT1, containing an overview of the ECC PT1 activities on issues relevant to WG FM, was made available to WG FM in document FM(17)126.

**4.7.2 Revision of ERC/ECC Decisions and Recommendations**

1. WG FM noted the work on review of the technical conditions in 3400-3800 MHz, where also ECC Decision (07)02 applies.

**4.7.2.1 Review of ECC Recommendation (08)02 (cross-border coord. in 900 MHz, 1800 MHz, GSM, UMTS, LTE, WiMAX)**

1. WG FM noted that ECC PT1 started the review of ECC Recommendation (08)02 on ”Frequency planning and frequency coordination for GSM / UMTS / LTE / WiMAX Land Mobile systems operating within the 900 and 1800 MHz bands”.

**4.7.3 Other issues**

1. ECC PT1 invites WG FM to consider the liaison statement from ECC PT1 on non-IMT machine-to-machine technologies, in connection with WRC-19 Agenda Item 9.1, Issue 9.1.8 (document FM(17)126 - Annex 1).
2. ECC PT1 invites WG FM to provide regular updates on its work on harmonisation measures developed on various forms of M2M/IoT or on the framework suitable for M2M/IoT applications.
3. WG FM tasked SRD/MG, FM 44 and FM 54 to provide for its 89th meeting in October 2017, the required details on spectrum needs and harmonisation measures supporting the development of M2M/IoT for WG FM to submit to ECC PT1.

***4.8 EFIS Maintenance Group***

**4.8.1 Progress Report**

1. The chairman of the EFIS/MG, Mr Stefan Mayer-Bidmon (D), presented document FM(17)092, the progress report.
2. The 39th meeting of EFIS/MG was held in Lisbon, Portugal, 4-5 April 2017 and was attended by 17 delegates from 13 Administrations and the ECO.

**4.8.2 Review of ECC/DEC/(01)03 on EFIS**

1. Annexes 2 (list of searchable applications) and 5 (EFIS harmonised interface, data formats) of the ECC Decision (01)03 for EFIS were revised and submitted to WG FM for public consultation approval (in this case public consultation because of the revisions of the main body). WG FM approved the draft revised ECC Decision (01)03 for public consultation (**Annex 21**). The public consultation is scheduled to end on the 15th August 2017.
2. A revision (**Annex 39**) of the PMSE application terminology in Annex 2 of the EFIS Decision was provided to the WG FM. The proposal is based on the use of the PMSE terminology in EFIS and the new categorisation used in the revised ERC Recommendation 25-10. There are two optional proposals and administrations as well as FM51 are requested to provide feedback to EFIS/MG. EFIS/MG planes to make a proposal to WG FM at the next meeting.
3. In document FM(17)106 France proposed to designate mobile communications for railways (MCR) as an application term for future railway applications. FM 56 is requested to consider this proposal in its further work (see also **AI 4.5.4**).

**4.8.3 Update of the ECA Table**

1. In revising the ERC Report 25 (ECA Table) EFIS/MG and the ECO also took into account all aspects identified by WG FM during the last two meetings.
2. The real extent of fixed service usage in the frequency bands 1980 - 2010 MHz and 2170 - 2200 MHz was investigated by the ECO (see Annex 9 of the EFIS/MG progress report). In view of the fact that currently only one country is known in which FS is used in these bands, WG FM agreed that the secondary FS allocation can be deleted from the revised ECA Table.
3. WG FM also decided to delete the ECA footnotes 3 and 4 and the references to them.
4. The publicly available NJFA (doc. FM(17)109) was considered in the revision of ERC Report 25.
5. In cooperation with the delegate from NATO, the text under section 5 of ERC Report 25, “Military requirements”, was revised during the meeting.
6. WG FM approved the draft revised ERC Report 25 (ECA Table) for public consolation (**Annex 11**). The public consultation period is scheduled to end on 15th of August 2017.
7. It is intended that the final version of the revised ERC Report 25 will include all harmonisation deliverables finally approved until the ECC#46 meeting in November 2017 (publication of the revised ERC Report 25 immediately after this ECC meeting).

**4.8.4 RIS Models**

1. With document FM(17)116 WG SE provided a proposal for administrations for their radio interface specifications for Fixed Service applications. ECO and EFIS/MG will consider the proposal for inclusion in ECO Report 04 and EFIS.

**4.8.5 EFIS software developments**

1. Work was done to patch errors and implement further improvements of EFIS by the ECO. Further details to the work done can be found in Annex 3 of the EFIS/MG progress report.
2. The PMSE module is live now (Recommendation 25-10 is generated out of the EFIS database).

**4.8.6 ECO Report 05**

1. The revised ECO Report 05 (Annex 6 to doc. FM(17)092) was endorsed by WG FM and will be published by ECO.

**4.8.7 ECC Report 180**

1. The chairman of EFIS/MG informed WG FM that the revision of ECC Report 180 will be discussed at the next EFIS/MG meeting in September 2017.

**4.8.8 Action Points for the administrations**

1. The updated To-Do-List was provided in Annex 3 of the EFIS/MG progress report.
2. Administrations are requested to note the action points relevant for them as described in the EFIS/MG progress report.

**4.8.9 ECO workshop on EFIS**

1. The programme for the ECO Workshop on EFIS on 19 September 2017 was agreed by WG FM. The official announcement of the Workshop, hosted by BNetzA in Mainz (Germany), will follow shortly after WG FM. The administrations are requested to advertise for this Workshop on national level.
2. The programme for the ECO Workshop is provided in **Annex 40**.

**4.8.10 Other issues**

1. The next meeting of EFIS/MG will take place in Mainz / Germany on 20/21 September 2017, directly after the ECO EFIS Workshop.

***4.9 Maritime Forum Group (MAR FG)***

1. The chairman of the WG FM Maritime Forum Group, Mr Jaap Steenge (HOL), introduced the annual report of the Maritime Forum Group on its activities for the year 2016. He addressed the main areas of interest of the group. Details on all issues under discussion and corresponding findings can be found in doc. FM(17)103.
2. Document FM(17)072, originating from ETSI TC ERM, was introduced by Mr Edgard Vangeel (ETSI LO) and contains a Liaison Statement from ETSI in support of physical meetings of the Maritime Forum Group.
3. Document FM(17)073, also originating from ETSI TC ERM and introduced by Mr Edgard Vangeel (ETSI LO), contains a Liaison Statement relating to recent changes to ITU RR Appendix 18 as agreed by WRC-15. One of the decisions of WRC-15 was splitting of some duplex channels and the creation of some new 4 digit channels on VHF. ETSI ERM TG26 expects advice of the Maritime Forum Group in relation to the new 20xx VHF Channels.
4. The chairman of the Maritime Forum Group indicated that the issue will be discussed at its next meeting and agreed that WG FM #89 will receive a proposed Liaison Statement in order to formally reply to ETSI TC ERM.
5. Document FM(17)INFO 004 was submitted to WG FM solely for information and contains the outcome of a forum group webmeeting on the 16th of February 2017.

***4.10 Radio Amateur Forum Group (RA FG)***

**4.10.1 Progress Report**

1. The acting chairman of the RA FG, Mr Thomas Weber (ECO), introduced document FM(17)096, the report with information about the activities of the ECO since the last WG FM meeting.
2. ECO updated the radio amateur topic webpage including the document with answers for frequently asked questions. ECO will continue to amend the frequently asked questions with the aim to add clarifications as appropriate.
3. WG FM was informed about the CITEL Recommendation PCC.II/REC. 53 (XXVIII-16) (December 2016) on the simplification of the administrative process for the amateur and amateur-satellite service. The Recommendation notes the Inter-American Convention on the International Amateur Radio Permit (IARP) and CEPT Recommendation TR61/01 providing support for mutual recognition of amateur service licenses.
4. The WG FM chairman will accept the invitation to attend the General Conference of IARU-R1 in September 2017 with a suggestion to briefly address the opening Plenary on Sunday, 17 September 2017.

**4.10.2 RA FG Chairmanship**

1. No administration had provided a candidate for the RA FG chairmanship so far. WG FM decided that Mr Thomas Weber, ECO, should continue as acting chairman of RA FG.
2. The WG FM chairman invited the CEPT administrations to consider the nomination of a candidate.

**4.10.3 Other issues**

1. None.

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

***5.1 Civil-Military meeting***

**5.1.1 Review of the working methods for the civ/mil meeting**

1. WG FM reviewed the working methods (last revision in 2010) for the Civ/Mil meeting document FM(17)005 - Annex 4.
2. From the military side, NATO confirmed that no modifications were proposed.
3. From the civil side, France proposed some minor editorial comments, which were accepted by WG FM.
4. WG FM approved the editorial revision of the working methods (**Annex 19**).

***5.2 General review of ECC/ERC/ECTRA deliverables***

1. The list of ECC/ERC/ECTRA deliverables was updated and will be submitted to the ECC (**Annex 20)**.
2. The WG FM chairman introduced the results of the January/February 2017 ECC meeting #44 (doc. FM(17)076 - Sec. 8.8). At that meeting, ECC had endorsed the review of ECC Decision (15)02 on ”The harmonised use of broadband Direct Air-to-Ground Communications (DA2GC) systems in the frequency band 1900-1920 MHz” and ECC Decision (15)03 on ”The harmonised use of broadband Direct Air-to-Ground Communications (DA2GC) systems in the frequency band 5855-5875 MHz”. Additionally, ECC had been informed that, subject to no objections being received, the Recommendation T/R 32‑02 (UHF frequencies on-board vessels) would be withdrawn by WG FM in May 2017.
3. The ECO made available to this meeting an updated list of ECC/ERC/ECTRA Decisions for routine review (doc. FM(17)108), containing those within the scope of WG FM and ECC PT1.

**5.2.1 Draft ECC Decision (15)/02 on Broadband DA2GC in 1900 – 1920 MHz and of ECC/DEC(15)03 on Broadband DA2GC in 5855 – 5875 MHz**

1. The WG FM chairman noted that both these ECC Decisions contain a review date of the end of 2017 and recognising the schedule of WG FM meetings, added that the review should start now to respect those stated dates.
2. In discussions France, Denmark, the Netherlands and Finland were of the view that both ECC Decisions could be withdrawn noting the lack of use in accordance with these Decisions and the attention currently being given to potentially equivalent services in the 2 GHz MSS bands. Germany felt that both ECC Decisions should be kept, with UK and Sweden stating that, whilst recognising the lack of DA2GC use in the bands, that a decision to withdraw was not needed at this WG FM meeting.
3. The WG FM chairman reflected that the bands 1900-1920 MHz and 5855-5875 MHz have different considerations. For 5855-5875 MHz, there are many applications that share the band, therefore retaining the 5.8 GHz DA2GC Decision would not necessarily block other uses. However, the situation for the 1.9 GHz ECC Decision was different because of the existing licensees in the band. The majority of the licences will expire in 2021-2027. Additionally, he noted that initial discussions had now emerged, with respect to the 1900-1920 MHz band for potential alternative harmonised usage.
4. Sweden stated that ECC needed to ensure that other applications would not be blocked by retaining either ECC Decisions.
5. Germany stated that there did not appear to be any urgency and that it was important to recognise that, while an ETSI standard (EN 303 339) was published in November 2016, another ETSI harmonised standard (EN 303 316) that also cover both bands had recently been submitted for approval. They felt that withdrawal now might inhibit services and send an odd message to ETSI and industry.
6. France reflected that the 1900-1920 MHz band, which remained unused, was under consideration for other usages and could be envisaged e.g. by FM56. They added that the UK had recently made announcements regarding the lower part of this band for potential national PPDR use.
7. The Russian Federation added that CEPT’s task was to facilitate and that the ECC Decisions could be retained, with future discussion on whether to withdraw.
8. The WG FM chairman added that ECC Report 214 did reflect that it was unlikely that more than one system would be rolled out in Europe, but that currently it appeared no systems had been commissioned across CEPT.
9. In summary, the WG FM chairman stated that, based on discussions, it was difficult to take a decision at this WG FM meeting. He added that both ECC Decisions needed to be considered together to provide both options for the market and that these two ECC Decisions had a very specific review period of three years, whereas the convention for ECC Decisions was five years. However, it fell to WG FM to give a view to the ECC meeting to provide some market certainty, but that it seemed unwise to close the options too early. Therefore, he proposed to the meeting that no date would be fixed for both ECC Decisions and that WG FM would come back to the subject at the October 2017 meeting. The meeting agreed with this way forward.

**5.2.2 Withdrawal of Recommendation T/R 32-02 (UHF frequencies on board vessels)**

1. The WG FM chairman noted that following the proposal to withdraw this Recommendation at the preceding WG FM meeting (doc. FM(17)067 - Sec. 4.4.3), and as no objections had been received, that the meeting endorse the withdrawal of T/R 32-02. The meeting unanimously agreed to withdraw the Recommendation.

***5.3 Maritime Broadband Radio Links (MBR)***

1. WG FM#87 approved draft ECC Recommendation (17)03 on MBR for public consultation in February 2017. The ECO summary of the results of the public consultation is given in doc. FM(17)082.
2. Mr Eirik Bliksrud (NOR), chairman of the WG FM Correspondence Group on Maritime Broadband Radio Links (MBR), presented the report from the correspondence group given in doc. FM(17)088.
3. The WG FM CG MBR had one web-meeting on 2 May 2017 in order to consider the comments submitted during the public consultation.
4. The comments were mainly of editorial nature and some comments gave further explanation and additions to some of the considerations in the draft ECC Recommendation. All were supported by the correspondence group.
5. The ECC Recommendation (17)03 on “Guidance for the harmonised use and coordination of Maritime Broadband Radio (MBR) systems on board ships and off-shore platforms operating within the frequency bands 5852-5872 MHz and 5880-5900 MHz” was approved by WG FM for publication (**Annex 18**).
6. With this, WG FM agreed that the correspondence group had completed the tasks given by WG FM#78 and the group was closed. The WG FM chairman thanked Mr Eirik Bliksrud for his work on this matter.

***5.4 Fixed Service (FS) related items***

1. The final minutes of the 44th ECC plenary meeting (document WG FM(17)076 - Sec. 8.12) were noted.
2. WG FM considered the Liaison Statement on deployment of fixed service links in frequency bands above 92 GHz from WG SE (document WG FM(17)114).
3. WG FM noted that studies on facilitating the development of fixed service (FS) links in the frequency bands above 92 GHz were ongoing at WG SE (SE19).
4. WG FM also noted that work had started at WG SE (SE19) on a draft ECC Recommendation on radio frequency channel / block arrangements for FS operating in the bands 130-134 GHz, 141‑148.5 GHz, 151.5-164 GHz and 167-174.8 GHz, a draft ECC Recommendation on radio frequency channel / block arrangements for FS operating in the bands 92-94 GHz, 94.1‑100 GHz, 102-109.5 GHz and 111.8-114.25 GHz together with draft ECC Report on Point to Points Radio Links in the bands 92 - 114.25 GHz and 130 -174.8 GHz.
5. ECO pointed out that WG FM may need to consider the categorisation and regulatory implications on other services and applications, in future when the new draft ECC Report is available and stable.

**5.4.1 ECO Report 04**

1. See **AI 4.8.4**.

***5.5 Update on Machine-to-Machine (M2M)***

**5.5.1 M2M via satellite and airplane**

1. The chairman of the correspondence group on M2M via satellite, Mr Emmanuel Faussurier (F), presented doc. FM(17)095, the progress report of the correspondence group.
2. He underlined that the “Report on M2M IoT via satellite” presented to the previous WG FM meeting (see doc. FM(17)035) was de facto focusing on the opportunities for the IoT-M2M market offered by hybrid terrestrial-satellite solutions that rely on “SRD regulations”. Given the interest within the satellite industry to investigate within FM44 the topic of “M2M via satellite” in a broader manner, amendments had been made to the correspondence group report from last January in order to align the language used with the effective scope of the report. In particular, the title of the report was changed as follows: “Report on M2M IoT via satellite based on SRD regulatory approach”. Some technical elements (reference to typical antennas, budget links, ...) were also reviewed.
3. Concerning the draft new WIs, Mr Faussurier introduced the proposed amended version from FM44 (see doc. FM(17)095 - Annex 3) in order to widen the current scope of the possible new work item for FM44, particularly in order to not limit the investigations on frequencies below 1 GHz and also to not restrict these investigations to an SRD regulatory framework. He also underlined that within SRD/MG, the existing work item SRD/MG\_07 for investigating future spectrum needs in the UHF frequencies was seen as sufficient and that no additional SRD/MG work item is needed.
4. Mr Thomas Weber, chairman of SRD/MG, provided further information relating to SRD/MG discussions on M2M via satellite. Based on ECC Report 261, SRD/MG is in the position to discuss terminals used in low density networks within 862-863 MHz. SRD/MG will actually investigate more in detail the studies in ECC Report 261 and its SEAMCAT work spaces to better define ‘low density’. Opportunities may be made available under individual authorisations. Such opportunities may possibly not only be relevant for terminals transmitting towards satellites but could also serve terrestrial low density networks. A restriction to only satellite-based low density networks seems therefore to be inappropriate at this stage. The existing work item SRD/MG\_07 for investigating future spectrum needs in the UHF frequencies is seen as sufficient and no additional SRD/MG work item is needed.
5. WG FM noted the amended report by the correspondence group as presented in doc. FM(17)095 - Annex 1. This report provides background information to both FM44 and SRD/MG that can be used in their future investigations in relation on M2M hybrid terrestrial-satellite solutions that rely on “SRD regulations”.
6. Germany, Italy and Switzerland expressed some concerns relating to the potential use of the frequency band 915-921 MHz by M2M via satellite. Germany and Switzerland recalled that the regulatory proposals in the Addendum to CEPT 59 applicable to SRDs in data networks within the band 915-921 MHz specify that devices shall be under the control of terrestrial network access points and are therefore not applicable to M2M via satellite.
7. Following comments by the Russian Federation and by the ECO, WG FM agreed that the proposed WI for FM44 was too detailed and should be simplified. The objective is to explore technical and frequency band opportunities for the introduction of M2M IoT applications via satellite in order to extend terrestrial networks and create complementary services. WG FM also agreed that the WI should be kept separate from the existing WI FM44\_32 dealing with satellite solutions for 5G.
8. WG FM approved the Work Item for FM44 (**Annex 08**). This new WI was supported by: France, Luxembourg, Norway, the Russian Federation, Switzerland, the Netherlands and the United Kingdom. The meeting agreed subsequently to close the correspondence group on M2M via satellite. The WG FM chairman thanked Mr Emmanuel Faussurier for his work on this matter.
9. Mr Olivier Pellay from Airbus made a presentation (doc. FM(17)INFO005) on satellite stakeholder’s interests for M2M satellite communications. The meeting noted that this information is relevant to the new FM44 WI.

***5.6 Roadmap on 5G***

1. The WG FM chairman introduced the latest version of the CEPT Roadmap on 5G (FM(17)076 - Annex 2) and referred to the relevant part of the ECC#44 minutes (FM(17)076 - Section 7.1). ECC#44 approved an updated version of the Roadmap which reflects the activities within ECC since the 43rd ECC plenary meeting. ECC#44 also concluded that, with regard to the band 3400-3800 MHz, this is a MFCN band and therefore all proposals, also from stakeholders representing vertical sectors, should be submitted within that scope to ECC PT1, and it is not intended to provide spectrum within this range (parts of it) on an unlicensed basis.
2. WG FM considered a proposal from FM54 related to item C.3 (‘Investigate the possibility for verticals to share common platforms (e.g., a shared private network or hosted on a mobile operator network)’) of the Roadmap on 5G. FM54 had proposed to delete the reference to 400 MHz in the column showing the related ECC activity. The 400 MHz range is a rather complex and fragmented frequency range and the implementation of 5G in parts of it would be challenging. The draft ECC Report on PMR/PAMR in the 400 MHz range, under development within FM54 provides information on the usage of this range in CEPT. Also the responses to the questionnaire which had been sent out provide a picture on this. Because of this situation it would not be appropriate from FM54 point of view to draw the attention explicitly to 400 MHz as an example (FM(17)125 - Annex 1, Section 2). To note that there is no harmonisation measure/activity foreseen in this range for a specific system. WG FM agreed to propose the deletion of the reference (‘in the 400 MHz band (see WI FM54\_02 and FM54\_03) or’) to the ECC#45 meeting.

***5.7 Spectrum regulation for drones***

1. The chairman of the CG on Drones, Mr Florian Cziczatka (AUT), presented doc. FM(17)093R1, the progress report. The CG had one physical meeting on 6-7 April 2017 in Lisbon / Portugal. 19 participants from 11 CEPT administrations, experts and the ECO participated. In addition, one web-meeting on 10 May 2017 with 10 participants.
2. The chairman of the CG gave a detailed presentation of draft ECC Report 268 on Technical and Regulatory Aspects and the Needs for Spectrum Regulation for Unmanned Aircraft Systems (UAS), which is contained in Annex2R1 of doc. FM(17)093R1. After the presentation some further clarification concerning the applicability of the Radio Equipment Directive (RED) as well as the licensing regime were made. The chairman of the CG and the ECO further explained that the RED is also applicable. In order to operate a drone two separate licences are required:
	1. a licence concerning the construction of the drones and its risk assessment as well as a possible operators certificate issued by the air traffic management or another competent authority;
	2. a licence on the radio part, mainly for the command and control link issue by the telecommunication authority.
3. WG FM approved the draft ECC Report 268 for public consultation (**Annex 09**). In addition, it was agreed to an extended consultation period until 15 September 2017.
4. The chairman of the CG presented the working document on possible frequency options contained in Annex 3 of doc. FM(17)093(R1). During the discussion several administrations made some proposals and the working document was further improved.
5. WG FM endorsed the improved working document on the possible frequency options (**Annex 10**) which will be used by the CG for the ongoing activities.
6. The meeting also endorsed the request of the CG to have a further face to face meeting incorporating the outcome of the public consultation into the draft ECC Report 268 and to provide a final draft to the next WG FM meeting.
7. Furthermore, the WG FM tasked the CG to evaluate the possible frequency options further taking into account the outcome of the public consultation of draft ECC Report 268 as well as all other documents relating to this topic.

***5.8 Information on LSA implementation***

1. No new information has been received since the 87th WG FM meeting. WG FM members are invited to consider the information on the dedicated page ([*http://www.cept.org/ecc/topics/lsa-implementation*](http://www.cept.org/ecc/topics/lsa-implementation)) of the ECC website and inform ECO (*bruno.espinosa@eco.cept.org*) of new or updated information.

***5.9 Maintaining the WI95revCO07 and MA02revCo07 plans***

1. Taking into account the decision taken at WGFM#87 that both T-DAB Plans should only be maintained with the Co07 format, ECO undertook an update and cleaning of the website material related to TDAB plans. Furthermore, the ECO improved the web content to make it clearer and easier to navigate. Information related to T-DAB Plans is available here: [*http://www.cept.org/ecc/tools-and-services/t-dab-plans*](http://www.cept.org/ecc/tools-and-services/t-dab-plans). For assistance please contact the ECO (*jose.carrascosa@eco.cept.org*).

**6. New work items**

***6.1 Technical characteristics for Low Power Wide Area Networks – Chirps Spread Spectrum (LPWAN-CSS) operating in the UHF spectrum below 1 GHz***

1. Document FM(17)069 contains a Liaison Statement from ETSI informing WG FM that a new SRdoc on ‘Technical characteristics for Low Power Wide Area Networks - Chirp Spread Spectrum (LPWAN-CSS) operating in the UHF spectrum below 1 GHz’ is under development by ETSI. This activity is in response to a request made by WG FM; however, it was explained that ETSI agreed to limit the scope of this SRdoc to Low Power Wide Area Networks using Chirp Spread Spectrum (LPWAN-CSS) modulation.
2. WG FM noted that the scope will be limited to LPWAN-CSS but prefers to wait until the final document has been submitted to WG FM before providing further feedback.

***6.2 Technical characteristics for SRD equipment using Nuclear Magnetic Resonance (NMR) technology in the frequency range 1 MHz to 50 MHz***

1. Document FM(17)070 contains a Liaison Statement from ETSI informing WG FM that a new SRdoc on ‘Technical characteristics for SRD equipment using Nuclear Magnetic Resonance (NMR) technology in the frequency range 1 MHz to 50 MHz‘ is under development by ETSI.
2. The document was noted by the WG FM.

***6.3 WAS/RLANS in the band 5925 – 6425 MHz***

1. The WG FM chairman noted his previous comments related to the results of the January/February 2017 ECC meeting #44 (doc. FM(17)076 - Sec. 8.14), in that, based on a multi country proposal and discussions, ECC had agreed a new work item ([FM\_52](http://eccwp.cept.org/WI_Detail.aspx?wiid=627)). He added that this WG FM meeting would need to agree a way forward, recognising that the study element of this work item had been discussed at the recent WG SE meeting and this was shown in a liaison from WG SE to WG FM in doc. FM(17)112.
2. Document FM(17)102 contains a Liaison Statement from ETSI informing WG FM that a new SRdoc on ‘WAS/RLANs in 6 GHz‘ is under development by ETSI. This work in ETSI is intended to support the CEPT activities resulting from work item FM\_52 and in particular the sharing studies to be initiated within SE24 (work item SE24\_62).
3. The ETSI Liaison Officer was asked to clarify the timeline for the development of this SRdoc. He noted, that this did not necessarily mean that the SRdoc would have obtained ETSI ERM approval in time for the October 2017 meeting of WG FM. This was noted by the meeting. He added that a stable draft would be expected in September 2017.
4. The WG FM chairman then invited Germany (doc. FM(17)110) and the United Kingdom (doc. FM(17)124) to present their proposals related to work item [FM\_52](http://eccwp.cept.org/WI_Detail.aspx?wiid=627). The proposals were for terms of reference of a new WG FM project team (Germany, UK), for that project team to be a joint project team (UK) and a draft liaison statement to WG SE (Germany). In discussions, the meeting gave views upon the best way to manage the work. This included variations of using the existing groups (i.e. SRD/MG with close cooperation with WG SE (SE24)), creating a new WG FM project team (again with close cooperation with WG SE (SE24)) or a joint project team.
5. Views expressed noted that some administrations would have difficulty in covering new project teams, however the WG FM chairman noted that the workload for SRD/MG was considerable. Following further discussions around prioritisation of work items in SRD/MG, the WG FM chairman said that it would not be proportionate to prioritise work items as views would vary across items. Some views expressed caution over the establishment of a joint project team, recognising that ECC had not supported the establishment of an ECC task group when agreeing the work item.
6. In summary, and taking into account that the initial work focus would be in WG SE, the WG FM chairman proposed that the issue around how to address the work within the WG FM, would be addressed at the October 2017 WG FM meeting. In addition, he proposed that a liaison be sent to WG SE to propose the commencement of technical studies.
7. ECO noted that the liaison to WG SE would need to include existing urban rail systems above 5925 MHz, as these were addressed under the EC Mandate on 5 GHz as they were not considered as fixed service, this approach was endorsed by France, and the meeting agreed. Finally, the alignment of timescales, between WG SE and WG FM, would also need to be addressed. This was agreed by the meeting to request WG SE to conduct studies and send a liaison statement to WG SE (**Annex 38)**.

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

***7.1 EC recent activity***

1. The EC Counsellor, Mr Giuseppe Rizzo, reported about the latest RSC and RSPG plenaries.
2. At RSPG #42, Opinions on the European Electronic Communications Framework, on IoT and on ITS were adopted. They are available on the RSPG website.
3. Progress reports on four further Opinions were noted.
4. At RSC#59, two Mandates to CEPT were adopted, on the widening of the 1.5 GHz band for downlink-only wireless broadband, and a permanent Mandate on UWB, respectively.
5. The EC Counsellor also presented briefly to WG FM the main points of a recent JRC study on coexistence between LTE and Wireless Hearing Aid Systems operating in the 2.4 GHz band (see document FM(17)074).
6. Concerning the ongoing update of the SRD Decision, the Commission also explained their preference to incorporate the entries in the band 863 - 868 MHz into the existing Decision noting their consistency with the harmonised sharing environment established therein, and to treat the entries in the 870 - 876 MHz and 915-921 MHz bands separately.
7. The EC Counsellor also informed the meeting that a "Workshop on efficient use of spectrum in the bands 870 - 876 MHz and 915 - 921 MHz" will take place in Brussels on 19 June 2017 from 10:30 h - 16:00 h.
8. Answering to a question from France, the EC Counsellor also confirmed that the Commission is considering the amendment of Decision 2008/671/EC (5.9 GHz ITS) in order to extend the safety related band (5875 - 5905MHz), adding 20 MHz (to 5925 MHz) and modifying the definition of ITS in order to also include Urban Rail (CBTC). A draft Mandate may be discussed at the next RSC in July.
9. Mr Rizzo also informed WG FM that the second joint RSC-RISC meeting will take place on 4 July 2017. The date for a joint RSC-TCAM meeting will be communicated shortly

***7.2. ETSI recent activity***

**7.2.1 Overview on ETSI SRdocs**

1. The ETSI Liaison Officer informed the WG FM that the document behind the URL [*https://portal.etsi.org/Portals/0/TBpages/ERM/Docs/ERM SRdoc overview.doc*](https://portal.etsi.org/Portals/0/TBpages/ERM/Docs/ERM%20SRdoc%20overview.doc)provides an up to date overview of the SRdocs recently published and those still under development. For each of the SRdocs more specific information (like the time line) is available by using the hyperlinks contained in this document.

**7.2.2 Directive 2014/53/EU (RE-D) of 16 April 2014**

1. The ETSI Liaison Officer further informed the WG FM that [*http://www.etsi.org/red*](http://www.etsi.org/red) contains specific information about the RE Directive including a list of harmonised standards recently published by ETSI. However being published by ETSI doesn’t mean these standards are also published in the OJEU. The EC is doing a review of standards before they are listed in the OJEU and sometimes standards are returned to ETSI for addressing shortcomings identified by the EC.

**7.2.3 Other issues**

1. The ETSI Liaison Officer introduced document FM(17)071 which contains the working procedures within ETSI when dealing with spectrum issues including the procedure for developing SRdocs. There is a minor change in this procedure resulting in an SRdoc automatically being approved in case no or only editorial comments where received during the ETSI internal enquiry procedure, so avoiding a second final approval procedure in such cases. This may result in the SRdoc to become available several weeks earlier. This change can be found in point 9 in the section on SRdocs (page 9 of document FM(17)071).

**7.2.4 Overview on ECC deliverables**

1. In accordance with the cooperation process between ECC and ETSI, WG FM informs ETSI as appropriate about the following ECC deliverables:

**a) Deliverables adopted for submission to the ECC for final approval (CEPT Reports / ECC Decisions)**

1. Draft new ECC Decision (17)03 on “The withdrawal of ERC Decision(98)15 on ‘Exemption from individual licensing of Omnitracs terminals for the Euteltracs system’ ” (**Annex 06**);
2. Draft new ECC Decision (17)04 on “The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.7 - 12.75 GHz and 14.0 - 14.5 GHz” (**Annex 05**);
3. No draft CEPT Reports were adopted for submission to the ECC at this WG FM meeting;

**b)** **Deliverables finally approved for publication (ECC Recommendations / ECC Reports)**

1. Draft new ECC Recommendation (17)03 on ”Guidance for the harmonised use and coordination of Maritime Broadband Radio (MBR) systems on board ships and off-shore platforms operating within the frequency bands 5852-5872 MHz and 5880-5900 MHz” (**Annex 18**);
2. Draft amended ERC Recommendation 70-03 on SRDs, main text (**Annex 22**);
3. Draft amended Annexes 9 and 10 of ERC Recommendation 70-03 on SRDs (**Annex 23, Annex 24**);
4. No ECC Reports were approved for publication at this WG FM meeting;

**c)** **Deliverables approved for Public Consultation - ECC Decisions / ECC Recommendations / ECC Reports**

1. Draft revised ECC Decision (01)03 on EFIS; the public consultation is scheduled to end on 15 August 2017 (**Annex 21**);
2. Draft revised ECC Decision (15)05 on PMR446; the public consultation is scheduled to end on 15 August 2017 (**Annex 33**);
3. Draft revised Annexes 1, 2, 3, 9 and 12 of ERC Recommendation 70-03 on SRDs (**Annexes 25 ‑ 29**);
4. Draft revised Annex 5 of ERC Recommendation 70-03 on SRDs (**Annex 37**);
5. Draft new ECC Report 268 on Unmanned Aircraft Systems (UAS); the public consultation is scheduled to end on 15 September 2017 (**Annex 09**);
6. Draft revised ERC Report 25 (ECA Table); the public consultation is scheduled to end on 15 August 2017 (**Annex 11**);

**d)** **Withdrawal of Deliverables**

1. Recommendation T/R 32-02 on UHF frequencies used by on-board communication stations;

**e)** **Other Deliverables**

1. Updated list of ECC/ERC/ECTRA deliverables; will be submitted to the ECC (**Annex 20**);
2. Updated ECO Report 05 (use of application terminology in ECC deliverables); endorsed by WG FM and to be published by ECO (doc. **FM(17)092 - Annex 6**);
3. Updated Work Programme, covering all Work Items for WG FM and its sub groups (**Annex 07**);
4. New Work Item for FM44 on M2M via satellite (**Annex 08**);
5. Revised Working Methods for Civil-Military Meetings (**Annex 19**);
6. Questionnaire on interferences to meteorological radars operating in 5600-5650 MHz caused by 5 GHz WAS/RLAN; the deadline is set to 31 August 2017 (**Annex 13**);
7. Results of the responses to the 2016 interference questionnaire (**Annex 36**);
8. LS to ADCO RED on interference statistics 2016 (**Annex 12**);
9. LS to WG SE on sharing studies in 960-1164 MHz, including background information to this LS (**Annexes 14 and 15**);
10. LS (response) to WG SE on LTE studies at the 400 MHz range (**Annex 16**);
11. LS to ETSI on clarifying the application of harmonised standards for 500 mW UHF SRD in data networks (**Annex 30**);
12. LS to WG SE on a detection/collision avoidance application in 446-457.1 kHz (**Annex 31**);
13. LS to WG SE on studies with regard to the intended update of the UWB regulatory framework (**Annex 32**);
14. LS (response) to WG SE on fixed applications in the 60 GHz band (**Annex 34**);
15. LS (response) to WG SE on the scope of Work Item SE24\_61 on NBN SRDs with 500 mW (**Annex 35**);
16. LS to WG SE on WAS-RLANs in 6 GHz (**Annex 38**);
17. Working document on frequency options for drones (**Annex 10**);
18. Leaflet about the Sat MoU (**Annex 17**);
19. Discussion paper on PMSE terminology (**Annex 39**);
20. Programme of EFIS workshop on 19 September 2017 in Mainz/Germany (**Annex 40**);
21. Further information is available on the WG FM website:
22. [*http://www.cept.org/ecc/groups/ecc/wg-fm/news/results-of-the-wgfm88-meeting-15-19-may-2017-in-dublin/*](http://www.cept.org/ecc/groups/ecc/wg-fm/news/results-of-the-wgfm88-meeting-15-19-may-2017-in-dublin/)

**8. Vice Chairmanship of WG FM**

1. Based on the ECC RoP (Articles 5 and 8) the procedure for appointment / re-appointment of both WG FM Vice Chairs was started on 08 March 2017 (FM(17)NOM01).
2. Two nominations were submitted by CEPT administrations, by France (FM(17)NOM02) and UK (FM(17)NOM03). According to No. 8.5 of the ECC RoP, appointments shall normally be for a maximum of three years with the possibility of reappointment for one further consecutive term only.
3. Mr Laurent Bodusseau (France) had been nominated for a 3 years term of duty. He was appointed by acclamation by the WG FM meeting for his first term as WG FM Vice Chairman.
4. Mr Stephen Talbot (United Kingdom), Vice Chairman of WG FM, had been nominated for a second 3 years term of duty. He was appointed by acclamation by the WG FM meeting for his second term as WG FM Vice Chairman.

**9. Any Other Business**

***9.1 ECO Bulletin and assistance to WG FM***

1. Mr Weber (ECO) presented doc. FM(17)097rev1 on the ECO assistance to WG FM as well as the ECO Bulletin presented at the last ECC meeting (doc FM(17)077).
2. For information on the ECO assistance related to the LSA topic webpage or the T-DAB Plans, see **sections 5.8 and 5.9** of this report.
3. Mr Weber invited the relevant WG FM PTs/MGs to have a look on the existing topic web-pages for possible additions or amendments of their content.
4. IARU-R1 requested to add a propagation model in Seamcat: ITU-R. (2015) Recommendation P.2001-2: a general purpose wide-range terrestrial propagation model in the frequency range 30 MHz to 50 GHz. The request was to add this as soon as possible and it should be seen in relation to studies, IARU-R1 likes to conduct using Seamcat, for work under WRC-19 AI 1.1. It was agreed that ECO should inform the Seamcat STG about this request.
5. No further questions were raised with regard to the ECO Bulletin or the ECO assistance to WG FM. Several of the issues covered in the ECO Bulletin should be noted or discussed at the respective WG / PT level. This includes information related to satellite issues (items 2, 3, 7, and 14), 95 GHz and above (item 8) for FS and SRDs, some activities in 3GPP (items 5, 6, and 12) and 5G (items 10 and 11), the results of the FCC Incentive Auction process (item 4), new APT Recommendations (item 1), 79 GHz short range radar global implementation (item 9), or Automatic Train Operation (ATO) (item 13).

**10. Report to next ECC plenary meeting**

1. 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.

**11. WG FM Work Programme, Meeting Schedule, Working Methods**

***11.1 Work Programme***

1. The WG FM chairman reminded that chairmen of PTs, MGs, CGs and FGs in cooperation with Mr Thomas Weber (ECO) should incorporate or update information on work items in the ECC work programme database [*http://eccwp.cept.org/*](http://eccwp.cept.org/). This will need to be carried out within one week after the WG FM meeting.
2. Also the WG FM delegates are invited to report about any mistakes or missing information with respect to the work items (WI) of WG FM to Mr Thomas Weber (ECO). The latest version of the work programme, covering all Work Items for WG FM and its sub groups, is provided in **Annex 07**.

***11.2 Meeting Schedule***

1. The WG FM chairman invited the participants to note the schedule of meetings in 2017 and consider possible venues for WG FM meetings in 2019 and 2020.
2. Sweden asked whether WG FM will have two or three meetings in the year 2019 because of WRC-19. It was clarified that this will depend on the number of ECC plenary meetings in that year. This question will be raised at the next ECC meeting in June 2017.
3. The schedule for future WG FM and Project Team meetings with indicating ECC, ECC PT1 meetings is as follows:

| **Meeting** | **Date** | **Place** |
| --- | --- | --- |
| FM Maritime FG | 13 – 14 June 2017 | Brest, France |
| **ECC #45** | **27 – 30 June 2017** | **Rotterdam, The Netherlands** |
| FM51 #24 | 11 – 12 July 2017 | Lillesand, Norway |
| FM44 #43 | 17 – 19 July 2017 | TBD |
| SRD/MG #71 | 06 – 08 September 2017 | Biel/Bienne, Switzerland |
| FM54 #16 | 12 – 13 September 2017 | Bonn, Germany |
| FM56 #2 | 14 – 15 September 2017 | Bonn, Germany |
| EFIS/MG ECO Workshop | 19 September 2017 | Mainz, Germany |
| FM22 #48 | 19 – 22 September 2017 | TBD, Latvia |
| EFIS/MG #40 | 20 – 21 September 2017 | Mainz, Germany |
| FM51#25 (tentative) | 20 – 21 September 2017 | ECO, Copenhagen |
| WG FM CG Drones | 22 September 2017 | Mainz, Germany |
| **WG FM #89** | **09 – 13 October 2017** | **Zagreb, Croatia** |
| FM44 #44 | 07 – 09 November 2017 | TBD |
| **ECC #46** | **14 – 17 November 2017** | **TBD, Romania** |
| FM56 #3 | 04 – 05 December 2017 | Maisons-Alfort, France |
| SRD/MG #72 | 13 – 15 December 2017 | Dublin, Ireland |
| FM54 #17 | 24 – 25 January 2018 | ECO, Copenhagen |
| **WG FM #90** | **05 – 09 February 2018** | **Birmingham, United Kingdom** |
| SRD/MG #73 | 11 – 13 April 2018 | Rome, Italy |
| **WG FM #91** | **14 – 18 May 2018** | **TBD, Switzerland** |
| **WG FM #92** | **24 – 28 September 2018** | **Vilnius, Lithuania** |
| … | … | … |

1. Further information is available on the ECO website: [*http://www.cept.org/ecc/meeting-calendar*](http://www.cept.org/ecc/meeting-calendar).

**12. Minutes of the Meeting**

1. WG FM approved the Minutes of the meeting.
2. It was agreed that the WG FM chairman and the secretariat could improve the text and correct mistakes as necessary following the meeting.

**13. Closure of the Meeting**

1. The WG FM chairman thanked the Irish Regulatory Authority ComReg for hosting the meeting. He especially addressed his thanks to Ms Suzanne Power and Mr Kenneth Concannon from ComReg for the fine organisation. In addition he thanked for the very relaxed social event on Wednesday evening, which took place at the Gibson Hotel in Dublin where the participants enjoyed a hearty BBQ accompanied by traditional Irish folk music.
2. The WG FM chairman thanked the WG FM delegates, the Project Team / MG / FG / CG Chairmen, the ECO (Mr Thomas Weber) and his Vice-Chairs Mr Stephen Talbot (UK) as well as Mr Laurent Bodusseau (F) for their support.
3. He also thanked his WG FM administrative secretary Mr Ali Daheur (D) and his technical secretary Mr Silvio Schwarz (D) for their active assistance.
4. Finally he closed the meeting and wished all the delegates a safe journey home.

**- - -**