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| Working Group FM | Doc. FM(19)075 |
| 93rd Meeting |  |
| Rome / Italy04 – 08 February 2019 |  |
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**1. Opening of the Meeting**

1. The WG FM Chairman, Mr Thomas Weilacher (D), opened the 93rd meeting of WG FM and welcomed the participants to Rome.
2. He thanked the Ministry of Economic Development (Ministero dello Sviluppo Economico / ”MiSE”)of the Italian Republic for inviting WG FM to the capital city.
3. Dr Eva Spina, Director General of the Directorate-General for the planning and management of the radio spectrum of MiSE welcomed the WG FM delegates to Italy.
4. Dr Spina wished the group a successful meeting and invited the participants to enjoy Italian hospitality as well as the social event on Wednesday.
5. The meeting was attended by 106 delegates from 33 CEPT administrations and 17 company representatives, international organisations, including EC, ECO and ITU. The list of participants is given in **Annex 02**. The WG FM Chairman informed that an individual invitation had been provided by him to UITP.
6. He further informed that Lichtenstein had provided a proxy to Switzerland for the year 2019.
7. The list of input and info 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(19)001R4. The references to the latest contributions were added. The agenda was adopted without further amendments and can be found in **Annex 01**.

**3. Report from ECC entities**

***3.1 Report from ECC Plenary***

1. The WG FM Chairman introduced the meeting report from the 49th ECC meeting, 23 – 26 October 2018, in Bordeaux / France (FM(19)002) and highlighted the most relevant aspects. The WG FM meeting took into account the relevant plenary decisions. He also informed about the chairmanship (FM(19)002 - Annex 4) within CEPT/ECC, especially with regard to required new appointments.
2. The other annexes to the ECC meeting report were considered with regard to the specific agenda items.

***3.2 Report from WG SE***

1. The WG FM Chairman referred to the meeting report of the 81st WG SE meeting, 21 - 25 January 2019, in Nice / France (FM(19)003). The meeting report was not introduced in detail, because WG SE had provided a liaison statement (FM(19)047R1) for the most relevant items. However, he indicated that the WG FM meeting would refer to specific sections in the meeting report if necessary. The liaison statement from WG SE was introduced and discussed under 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(19)015, the progress report of the Project Team. As there was no FM22 meeting since the last WG FM meeting, the progress report summarises the activities of the Project Team in 2018.
2. Regarding TRP, FM22 was not able to achieve any progress because they received no feedback from ECC PT1.

**4.1.2 HF monitoring campaign**

1. The automated HF monitoring campaign is ongoing as usual.

**4.1.3 Radio interference statistics**

1. The questionnaire on interference cases in 2018 had been approved by WG FM in May 2018 and will be submitted to administrations by ECO in February 2019.

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

1. EUMETNET had indicated possible inconsistencies in the answers to the FM22 questionnaire on interference cases in 2017; 18 administrations have been asked to respond to EUMETNET regarding these inconsistencies. The answers provided are contained in document FM(19)067.
2. In this context, the WG FM Chairman reminded administrations to provide responses to the questionnaire on interference cases in 2018 carefully.
3. The number of interference cases in 2018 and the outcome of the ADCO/RED market surveillance survey on 5 GHz RLANs will be discussed at the next FM22 meeting.
4. France proposed in document FM(19)062 that FM22 submits an internal report on enforcement of 5 GHz regulation. The meeting tasked the FM22 Chairman to report to the WG FM meeting in June 2019, taking into account the expected liaison statement from ADCO/RED on the market surveillance campaign on 5 GHz RLANs. Administrations are invited to contribute to the internal report.
5. The Czech Republic informed WG FM on measures which have been taken in order to reduce the number of interferences at meteorological radars from RLANs and will inform next FM22 meeting on those measures.

**4.1.5 Work related to ITU-R**

1. None.

**4.1.6 Draft ECC Report 293 on Mobile Spectrum Monitoring Units**

1. No comments were received during the public consultation. WG FM approved this ECC Report for publication (**Annex 17**).
2. The meeting decided to close the related work item FM22\_34.

**4.1.7 Questionnaire on GNSS jamming**

1. WG FM (in September 2018) approved the questionnaire on GNSS jamming for submission to administrations with a link to an explanatory paper. ECO provided the summary of responses in document FM(19)042.
2. The answers will be discussed and evaluated at the next FM22 meeting.
3. Administrations are invited to provide proposals to FM22 on the summary.

**4.1.8 Other Issues**

1. Other issues were reported in sections 4.5 and 4.6 of the progress report in document FM(19)015.

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

**4.2.1 Progress Report**

1. Mr Amar Saidani (France), the FM44 Chairman, presented the progress report of the PT in document FM(19)053R2.

**4.2.2 M2M/IoT via satellite**

1. The Chairman presented the LS from SRD/MG providing FM44 with comments on the draft ECC Report on M2M/IoT via satellites. The PT Chairman explained that the comments were included in the Report during a dedicated FM44 web meeting.
2. The PT Chairman presented a detailed view of the draft ECC Report on M2M/IoT via satellites (see document FM(19)053 - Annex 4)
3. Sweden noted that the 410 - 430 MHz and 450 - 470 MHz bands are mentioned in the draft ECC Report and requested clarification regarding a band already heavily discussed in another PT. The FM44 Chairman clarified that this part of the document is purely a theoretical analysis of existing allocations. The only proposal was limited to satellites allocations close to 400 MHz. He indicated that the document needs to be upgraded to make clear differences between purely theoretical analysis and existing or real expected projects in the next few years.
4. In order to finalise the document, the WG FM Chairman encouraged the interested parties to contribute to the next FM44 meeting before the document will be proposed for public consultation at the next WG FM meeting.

**4.2.3 Airborne earth stations, 12.75 – 13.25 GHz**

1. The PT Chairman presented the draft new ECC Decision (see document FM(19)053 - Annex 5) He mentioned the similarities of this ECC Decision with other ECC Decisions dealing with exemption of individual licencing for satellite terminal. He highlighted the specific results of FM44 discussions linked to aircraft station licence mentioned in the Recommendation 7 of the Radio Regulations and also the compatibility with provisions of the Appendix 30B of the Radio Regulations. He said the PT still needs discussion to finalise the document.
2. Germany presented a proposal to send the document to public consultation (see document FM(19)072). Sweden supported the view of the PT chairman on the issues that still need some works. It was suggested to allow the PT to continue its work on the document back in FM44. The view was supported by UK and Switzerland. The Russian Federation supported those views arguing that it has additional contribution to submit at the next FM44 meeting.
3. Germany agreed the proposal with the condition that the document will be presented for public consultation at the next WG FM meeting in June 2019. The FM44 Chairman encouraged administrations to contribute to the next FM44 as the document will be proposed for public consultation at the next WG FM meeting. WG FM agreed this view.
4. A liaison statement to ETSI was prepared (see document FM(19)053 - Annex 6) and the Russian Federation suggested to mention in the LS that the draft ECC Decision will be presented for public consultation at the next WG FM meeting and replies are awaited in due time. WG FM agreed the LS to ETSI (**Annex 29**).
5. ITU asked if the technical studies have been finalised and whether the CEPT work takes into account the on-going ITU activities. The representative of the ITU also asked if the aircraft ESIM will be compliant with Appendix 30B of the Radio Regulations or if it will be operated under provision N° 4.4. The PT chairman explained that the CEPT work is not in conflict with App. 30B of the Radio Regulations. Further he explained that the CEPT work is to study whether licence exempt regime is applicable to those earth stations in CEPT countries. He emphasized that the same activities were done for ESOMPs in the Ka band by CEPT where WRC-19 will address this issue.

**4.2.4 New ECC Recommendation on “Guidance and method of calculating HIRF level from high e.i.r.p. fixed earth station located outside of the wedge shaped area of an airport or helipad”**

1. The PT Chairman informed the meeting that FM44 has information exchange with ICAO Aerodrome experts and that a preliminary draft of this new ECC Recommendation has been prepared. The work is continuing.

**4.2.5 Other issues**

1. Germany presented an update on the on-going German measurements in the Galileo E6 band and the identification of possible future work in WG FM (see document FM(19)069). The meeting noted the information.
2. The WG FM Chairman presented an LS from WG SE (see document FM(19)047R1) and highlighted the publication of the ECC Report 271. The PT chairman explained that FM44 will analyse the results and the eventual consequences on existing ECC Decisions.
3. Germany presented a proposal for a new work item to investigate the band 2483.50 – 2500 MHz (doc. FM(19)60). Czech Republic, France, Sweden, Switzerland and UK noted their reservations with respect to this proposal. Globalstar was invited to present their intentions to FM44 for using the band. Turkey referred to ECC Report 201 on MBANs which should also be taken into account.
4. WG FM will reconsider the opportunity for a new work item at its next meeting.
5. Information with regard to the review of ECC Decisions within the scope of FM44 is provided in section 5.2 and in relevant sub-sections.

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

**4.3.1 Progress Report**

1. The Chairman of FM51, Mr Lindsay Cornell (UK), presented the progress report from the Project Team (doc. FM(19)044) which covered the 31st meeting of FM51, held at BNetzA in Bonn, 11 and 12 December 2018, and the 32nd meeting, held at DSNA-DTI in Toulouse, 9 to 11 January 2019.
2. Mr Cornell reported that FM51 has divided its work into two parallel streams, one dedicated to work item FM51\_10 on the 960-1164 MHz topic, and one dedicated to all other issues.
3. The next (33rd) meeting of FM51 will be dedicated to work item FM51\_10 and held on 11-13 March 2019 at ECO in Copenhagen, and the 34th meeting will be dedicated to all other issues and held on 24-25 April 2019 at ‘Friedrich-Alexander-Universität Erlangen-Nürnberg’.

**4.3.2 Spectrum for PMSE**

**4.3.2.1 Review of ECC Report 204 (‘Spectrum use and future requirements for PMSE’)**

1. The FM51 Chairman reported that the PT had begun work on reviewing ECC Report 204, and the current outcome is likely to be a new ECC Report presenting the key issues that have emerged since the original Report was published in 2014. He noted that a new Report allows ECC Report 204 to be referenced.

**4.3.2.2 Low power audio PMSE in the band 960 – 1164 MHz**

1. The FM51 Chairman reported that following the direction provided by ECC#49, the Project Team has resumed work on the draft ECC Report. The structure has been streamlined, and text up to section 4 is now considered stable, whilst the rest of the Report is open for full review and revision. The Report will be further worked on at the 33rd FM51 meeting; a contribution deadline one week before the meeting was agreed by the Project Team.

**4.3.3 Work related to ITU-R**

1. The FM51 Chairman reported that the PT has considered a proposal to amend the terminology used in ITU-R Res. 59-1 to widen the scope from "ENG" to "SAB/SAP and PMSE" and concluded that although this seemed a sensible suggestion, it falls under the scope of CPG PTD, which is preparing the common CEPT position for the Radiocommunication Assembly.

**4.3.4 Other issues**

1. None.

***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 meeting held in London (FM54#21) in December 2018.
2. The progress report is document FM(19)028 with 1 Annex and 5 corresponding ECC deliverables for approval.

**4.4.2 Draft ECC Report 292 on current use, future opportunities and guidance to administrations for the 400 PMR/PAMR frequencies**

1. WG FM finally approved ECC Report 292 for publication (**Annex 05**).
2. ECC Report 292 will be published together with the finally approved ECC Decisions as a package after the ECC meeting in March 2019.

**4.4.3 Draft new ECC Decision (19)02 on land mobile systems**

1. WG FM adopted the draft new ECC Decision (19)02 for final approval by ECC (**Annex 06**).

Statement from the Netherlands

*The draft new ECC Decision (19)02 on land mobile systems and the draft revised ECC Decision (16)02 have in their annexes, technical requirements for base station and user equipment such as transmitter masks for different channel widths. The major difference between the technical requirements in these two Decisions and the BEM approach in several MFCN ECC Decisions is that a BEM is an obligation to the license holder. The license holder can decide which equipment to use to comply with the BEM. The technical requirements in the annexes of the aforementioned Decisions are directly related to the equipment to be used. Equipment within the EU has to comply with the Radio Equipment Directive. It is therefore for EU member states, not possible to have additional technical requirements in their national regulations. Our view is that these Decisions imply additional technical requirements. Therefore, it is for The Netherlands, not feasible to fully implement these two Decisions as far as these details in the annexes are concerned.*

**4.4.4 Work related to ITU-R**

1. An LS was received from WP 5A on revision of REC ITU-R M.1746-0 on ‘Harmonized frequency channel plans for the protection of property using data communication‘.
2. The Meeting agreed that no specific action was required from WG FM, apart from informing administrations to contribute directly to WP5A if they felt it was appropriate.

**4.4.5 Other issues**

1. WG FM prepared an LS from the ECC to standardisation bodies (ETSI, 3GPP RAN4) to inform them to this development across 410 – 470 MHz (**Annex 30**).
2. WG FM also agreed to the approval in principle of the related FM 54 deliverables as a ‘package’ alongside draft new ECC Decision (19)02 and ECC Report 292 (see also sections 5.2.1, 5.2.2 and 5.2.3).
3. Pending ECC final approval of the ECC Decisions, FM54 proposed changes to the ECA Table to reflect the development of the new Decisions for EFIS/MG for inclusion as appropriate.
4. As all work items have successfully concluded, WG FM agreed to the closure of FM54 and its related work items. The Chair of FM54 expressed his gratitude to Mr Thomas Weilacher, Chair of WG FM and his team and the WG FM plenary for the opportunity to lead the PT; and for the support of all members of FM 54 (admin and industry) and especially Mr Thomas Weber and Mr Laurent Bodusseau.
5. The Meeting thanked Mr Sithamparanathan for chairing FM54 and for successfully revising the spectrum regulation for land mobile systems.

***4.5 FM PT 56 (RMR)***

**4.5.1 Progress Report**

1. The FM56 Chairman, Mr Vincent Durepaire (F), presented the minutes of the last meeting FM(19)037.

**4.5.2 Draft ECC Report 294 on spectrum needs for future railway communication**

1. The result of the public consultation resolution was presented to WG FM and proposed for publication. WG FM finally approved ECC Report 294 for publication (**Annex 32**).
2. Denmark’s understanding is that a malfunction in the radio network would lead to stopping of trains while the Report tends to show that a malfunction could be involved in railway accidents, which is not relevant from Denmark’s point of view. Denmark added that the sections about sharing network with MNO or PPDR are focused on potential challenges and do not consider any advantages such as reduced investments and better spectrum efficiency.
3. With regard to the migration duration from GSM-R to its successor, the Netherlands asked whether it is possible to change the legal rules to limit the need for parallel operation of both technologies. The FM56 Chairman replied that this is related to railway regulation managed by DG Move and this should be discussed within the Railways Interoperability and Safety Committee (RISC). He added that ERA was thinking of mechanisms to ease the process, as described in section 3.1 (2nd paragraph) of ECC Report 294.
4. The representative of the LPRA introduced a contribution, FM(19)040, requesting to postpone the publication of ECC Report 294 so that comments received during public consultation from LPRA’s members could be reconsidered. The WG FM Chairman explained that the resolution process had been transparent and respected; hence there is no reason to delay the publication.

**4.5.3 EC Mandate on spectrum for FRMCS**

1. The LS from WG SE to PT1 and WG FM, FM(19)047R1, was noted.
2. The progress report from PT1 (FM(19)061) as well as the terms of reference of its correspondence group on RMR (FM(19)061 - Annex 3) were noted.

**4.5.4 Work related to ITU-R (WRC-19)**

1. None.

**4.5.5 Other issues**

1. None.

***4.6 FM PT 57 (WAS/RLAN at 6 GHz)***

**4.6.1 Progress Report**

1. The FM57 Chair noted that the group had held one physical meeting and one web meeting since the last WG FM meeting. He mentioned that the physical meeting was understandably shortened due to the pressing need for the completion of the technical study via the SE45 group (i.e. meetings of SE45 and FM57 run concurrently). The technical report (ECC Report 302) has now been approved in WG SE for public consultation (from 29th Jan 2019). FM57 is now working on CEPT Report A, for the EC Mandate (Task 1).

**4.6.2 EC Mandate on WAS/RLAN at 6 GHz**

1. The FM57 Chair introduced doc. FM(19)073 - Annex 1, draft CEPT Report A. In introduction he noted that the draft Report was in a very early stage as the ECC technical report had only recently been approved for public consultation. In discussion a number of administrations noted that the draft Report contained too much detail and that the content should be reduced. Additionally, a number of administrations felt the conclusions in the draft were too optimistic. The FM57 Chairman encouraged administrations to participate in the work of FM57.
2. Germany introduced doc. FM(19)070, which proposed to accelerate the production of CEPT Report B to align with the delivery dates for CEPT Report A. The rational given was; SE45 studies are stable, the evidence for drawing conclusions for harmonised technical conditions are already suggested and that a single complete Report addressing both Tasks 1 and 2, could be achieved. In discussions a number of administrations supported retaining the original timescales and the separation of tasks. The WG FM Chair, in accepting that view, noted that nothing precluded CEPT from completing the work early, even where the original timescales are retained, but that for both Reports quality was important.

**4.6.3 Other issues**

1. Finally the FM57 Chair noted that no work had started on a review of ECC/DEC/(04)08.

***4.7 FM PT 58 (Maritime issues)***

**4.7.1 Progress Report**

1. The Chairman of FM58, Ms Aire Siinvert (Estonia) presented the PT’s progress report (FM(19)022), covering the first meeting, held in Copenhagen in 8 - 9 January 2019 and one webmeeting, held on 11 January 2019.
2. FM58 proposed a candidate (the FM58 Chairman) as the ECC liaison to IMO. WG FM agreed to endorse FM58 Chairman Ms Aire Siinvert as liaison person for IMO for approval by ECC.

**4.7.2 Draft ECC Decision (19)03 on ‘Harmonised usage of the channels of the Radio Regulations Appendix 18 (transmitting frequencies in the VHF maritime mobile band)’**

1. Following public consultation, WG FM adopted the draft ECC Decision (19)03 on ‘Harmonised usage of the channels of the Radio Regulations Appendix 18 (transmitting frequencies in the VHF maritime mobile band)’ to be forwarded to ECC for final approval and publication (**Annex 12**).

**4.7.3 Questionnaire on licensing of personal emergency radio devices**

1. WG FM noted the summary of questionnaire to CEPT administrations on the licensing of personal radio equipment in the maritime field. FM58 was asked to discuss the document at its next meeting and report to WG FM #94 (June 2019) on its findings.
2. Malta asked to amend its answers to the questionnaire due to changes in their national regulations. ECO confirmed the questionnaire will be amended for the next FM58 meeting (24-25 April 2019).

**4.7.4 Other issues**

1. FM58 proposed a new work item FM58\_03. The proposal is to analyse the feasibility of implementation of digital voice radio telephony in the VHF maritime mobile band with the aim to develop an ECC Report. With the support of nine administrations (Belgium, Denmark, Estonia, Finland, France, Germany, the Netherlands, Norway and Romania), WG FM approved the new work item FM58\_03 (**Annex 14**).
2. WG FM agreed on a liaison statement to ETSI, IALA, CIRM and IMO in connection with the new work item on digitization of voice radiotelephony in the VHF maritime mobile band (**Annex 15**).
3. Document FM(19)006 contains a liaison statement from ETSI informing WG FM that w.r.t. Maritime standards covering frequencies below 526.5 kHz, there is only one such standard, EN 300 065 V2.1.2 covering NAVTEX receivers on 518 kHz or 419 kHz and this harmonised standard was listed in the OJEU RED in June 2016.
4. ETSI informed the meeting that the work item for the development of EN 303 356 under the new MED Directive 2014/90/EU has been stopped following a decision from ETSI ERM. The technology is to become obsolete and considering the time needed for the development and the publication of the standard, it did not make sense to continue the work. TG26 is of the opinion that the current radiotelex standard listed under Regulation 2018/773 (ETSI ETS 300 067) is still in force.
5. Document FM(19)007 contains a liaison statement from ETSI informing WG FM that ETSI ERM TG26 is currently developing standards for navigation radar using both conventional and new technologies (NT). However there may be a need for coexistence studies to prevent compatibility issues when both types of radar operate in the same band as the interference rejection mechanism implemented by conventional radars may be ineffective to suppress interferences from the NT radar.
6. WG FM concluded that before any compatibility analysis could be considered, the characteristics of both types of radars need to be known. WG FM agreed to send a liaison statement to ETSI (TC ERM, TG MARINE (former TG26)) in which ETSI is requested to provide these characteristics (**Annex 13**).

***4.8 Short Range Devices / Maintenance Group (SRD/MG)***

**4.8.1 Progress Report**

1. The Chairman of WG FM asked the secretary of SRD/MG, Mr Robin Donoghue (ECO) to introduce the progress report of SRD/MG, as a new Chairman of SRD/MG has yet to be appointed.

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

1. SRD/MG proposed the amendment of ERC/REC 70-03 revised main body for approval for public consultation. The changes are to update references to the revised EC Decisions on SRD and to remove text relating to integral antenna that was no longer seen as necessary.
2. Italy suggested improvement of the draft by aligning the text with that used by the EU. WG FM agreed that revision and approved the ERC/REC 70-03 revised main body text for public consultation (**Annex 40**).

**4.8.2.1 ERC/REC 70-03 Annex 1 (non-specific SRD)**

1. SRD/MG proposed the amendment of ERC/REC 70-03 - Annex 1 and a covering note, for approval for public consultation.
2. The Russian Federation accepted the SRD/MG proposal to delete the existing Note 1, relating to Duty Cycle, from the Annex 1 of ERC/REC 70-03 but stated that they would object to the same note being removed from the ECC DEC(05)02.
3. Switzerland requested the Note referring to the protection of GSM-R was aligned with the Note in Annex 2 of ERC/REC 70-03. Germany stated that the Notes reflect different SRD types and therefore the Note should remain unchanged. This was endorsed by the meeting.
4. WG FM approved the amendment of ERC/REC 70-03 - Annex 1 and a covering note, for public consultation (**Annexes 41 and 42**).

**4.8.2.2 ERC/REC 70-03 Annex 2 (Tracking, tracing and data acquisition)**

1. SRD/MG proposed the amendment of ERC/REC 70-03 Annex 2 for approval for public consultation.
2. France introduced a French/German proposal aimed at increasing technology neutrality, by removing the LBT requirement, and aligning the authorisation regime with the EU framework. WG FM accepted the proposals to align the authorisation regime in Annex 2 (ERC/REC 70-03).
3. France highlighted that the reference to LBT as a requirement for 500 mW NBN SRDs in Annex 2 (ERC/REC 70-03) dates back to 2014 when the band 870-875.6 MHz was firstly introduced. France pointed out that the matter was then reviewed in the context of the Addendum to CEPT Report 59 and that, as a result of the public consultation process, LBT was not retained as a mandatory feature for SRD in data networks (in comparison, APC was maintained). France also highlighted the fact that the executive summary of ECC Report 261 does not require LBT for 500 mW NBN SRDs. More specifically, section 6.2.5 of ECC Report 261 basically concludes that the LBT approach seems not to be able to improve the coexistence with other SRDs. While it is clear that adequate spectrum sharing mechanism shall be implemented by the equipment, France wishes to emphasize that CEPT should not promote a specific technique that is not supported by proper evidence. Finally, France added that the decision on appropriate mitigation requirements to support coexistence between SRDs should be made at ETSI level, with the possible support from CEPT as appropriate.
4. Norway opposed the proposal to remove reference to LBT, pointing out that the text in Annex 2 proposed for public consultation is the result of a long discussion during SRD/MG x/o meeting in November 2018. Denmark, UK, Finland, Portugal and Sweden supported this view. WG FM recognised the draft Annex 2 as developed by SRD/MG, slightly amended, as a basis for further discussions.
5. With opposing views from administrations unresolved, WG FM decided to attach a cover letter to the public consultation of revised Annex 2 of ERC/REC 70-03, setting out the issue and asking that careful consideration be made to the retention or otherwise of text relating to LBT (**Annexes 16 and 56**).

**4.8.2.3 ERC/REC 70-03 Annex 3 (Wideband Data Transmission Systems)**

1. Mr Donoghue (ECO) presented the result of the public consultation on ERC/REC 70-03 - draft revised Annex 3. This change reflected the amendment to the EC Decision relating to the 900 MHz SRD frequency bands.
2. Switzerland suggested aligning the Note on the protection of GSM-R to the Note in ERC/REC 70-03 - Annex 2. WG FM agreed the proposal from Switzerland.
3. WG FM finally approved the ERC/REC 70-03 - revised Annex 3 for publication (**Annex 35**).
4. SRD/MG had developed a further revision of Annex 3, relating to the 57-66 GHz bands. This further revision was intended to align the Annex 3 with agreed changes to draft CEPT Report 70. WG FM additionally agreed that the upper frequency boundary should be increased to 71 GHz.
5. With the revisions agreed WG FM approved the amendment of ERC/REC 70-03 - Annex 3, for public consultation (**Annex 34**).
6. WG FM discussed a potential future revision of ERC Recommendation 70-03 - Annex 3 for wideband data systems in the frequency range 2400-2483.5 MHz within the context of the 8th update cycle of the EC SRD Decision. The issue was discussed already by WG SE based on a liaison statement from SRD/MG (see document (FM(19)035 - Annex 23). No decision was taken by WG SE as they would appreciate first the decision from WG FM on whether such studies should be initiated based on the limited information being available at the moment.
7. UK suggested necessary studies may already exist.
8. WG FM agreed to ask ETSI for a consolidated view on the issue before initiating new studies. If there are new systems using wideband technologies and which do not fit within the current Annex 3, then ETSI is invited to describe the technical characteristics of these 2.4 GHz wide band systems into an ETSI Systems Reference Document. WG FM agreed on a liaison statement back to ETSI containing such request (**Annex 48**).

**4.8.2.4 ERC/REC 70-03 Annex 5 (TTT)**

1. Mr Donoghue (ECO) presented the result of the public consultation on ERC/REC 70-03 - draft revised Annex 5.
2. WG FM finally approved the ERC/REC 70-03 - revised Annex 5 for publication (**Annex 36**).

**4.8.2.5 ERC/REC 70-03 Annex 6 (radiodetermination applications)**

1. SRD/MG proposed the amendment of ERC/REC 70-03 Annex 6 for approval for public consultation.
2. WG FM approved the amendment of ERC/REC 70-03 - Annex 6 for public consultation (**Annex 43**).

**4.8.2.6 ERC/REC 70-03 Annex 9 (inductive applications)**

1. Mr Donoghue (ECO) presented the result of the public consultation on ERC/REC 70-03 - draft revised Annex 9. The revision related to sub 9 kHz.
2. WG FM finally approved the ERC/REC 70-03 - revised Annex 9 for publication (**Annex 37**).

**4.8.2.7 ERC/REC 70-03 Annex 10 (radio microphones)**

1. Mr Donoghue (ECO) presented the result of the public consultation on ERC/REC 70-03 - draft revised Annex 10. The revision related to sub 9 kHz.
2. WG FM finally approved the ERC/REC 70-03 - revised Annex 10 for publication (**Annex 38**).

**4.8.2.8 ERC/REC 70-03 Annex 11 (RFID)**

1. SRD/MG proposed the amendment of ERC/REC 70-03 Annex 11 for approval for public consultation.
2. WG FM approved the amendment of ERC/REC 70-03 - Annex 11 for public consultation (**Annex 44**).

**4.8.2.9 ERC/REC 70-03 Annex 14 (non-beam WPT)**

1. The secretary of SRD/MG introduced the new draft Annex 14 of ERC/REC 70-03 (working document). SRD/MG had decided the draft was not sufficiently developed to suggest public consultation at this time.
2. IARU-R1 asked for clarification (doc. FM(19)050) which CEPT committee is responsible for assessing the unwanted emissions from WPT.
3. Mr Yurdal (SE24 Chairman) stated that work item SE24\_60 remained open and that work on assessing the unwanted emissions from WPT will continue under that work item.
4. Mr Yurdal (Turkey) stated that Turkey opposed approving the new draft Annex 14 of ERC/REC 70-03 for Public Consultation at this time.
5. WG FM agreed that SRD/MG must take the results of SE24 study into account when developing the new Annex 14.

**4.8.3 EC related activities**

**4.8.3.1 Permanent EC Mandate on SRDs, draft CEPT Report 70 (7th update)**

1. Mr Donoghue (ECO) introduced the public consultation results. He noted an issue with the 60 GHz proposal and the differences between ECC Report 288 and the draft CEPT Report 70.
2. UK introduced document FM(19)059. UK noted their reservation relating to the 60 GHz proposals, they had stated at the SRD/MG. UK asked for drafting activity at the meeting. They proposed reviewing APC and DFS requirements. In particular the definition of DFS, which WG FM agreed should be replaced by DAA. Further UK suggested extending the band up to 71 GHz.
3. France welcomed the proposal to investigate extending the frequency band to 71 GHz. France suggested the need for a technology neutral regulation.
4. Germany also supported the proposal to investigate extending the frequency band to 71 GHz, but suggests limiting this to ERC/REC 70-03 only at this stage.
5. Sweden and Italy noted that ECC Report 288 only covers the frequency band up to 66 GHz and asked what technical report supports the proposal to extend into a higher frequency band. The Chairman of WG FM noted there is no FS in the band within 66 - 71 GHz, so there is no sharing issue. UK further answered that the technical conditions were derived to allow intra-SRD operation, rather than being necessary to protect a victim service.
6. WG FM considered whether to limit the proposed extension in the frequency band up to 71 GHz to ERC/REC 70-03, or to also amend draft CEPT Report 70. WG FM further noted that the draft CEPT Report 70 section looking at envisaged future proposals, already notes 57-71 GHz as a potential future candidate.
7. France, Germany, Sweden and Switzerland all supported limiting the proposed extension in the frequency band up to 71 GHz to ERC/REC 70-03 at this time. UK supported additionally amending draft CEPT Report 70. WG FM agreed to propose extending the frequency range to 57-71 GHz only in the ERC/REC 70-03 Annex 3 at this point in time.
8. The UK stated that whilst it acknowledged the agreement of WG FM to approve CEPT Report 70 with an upper band boundary of 66 GHz, it reserved its right to bring this boundary issue to the attention of the ECC meeting.
9. Noting the differences in proposals from administrations the Chairman of WG FM asked interested administrations to form a drafting group to resolve the single unresolved section of the draft CEPT Report 70 relating to the 60 GHz bands. Following this drafting activity, the ECO presented the agreed text to WG FM.
10. Greece asked how the revised PSD limits had been derived. France explained the calculation is based on an assumption of a minimum FS channel of 50 MHz, according to ECC Report 176.
11. Norway informed the meeting that the overview on the implementation of the 5.8 GHz band for WIA in draft CEPT Report 70 (section 3.8) will be updated.
12. WG FM agreed to forward the draft CEPT Report 70 to ECC for final approval and sending it to the EC (Annex 33).

**4.8.3.2 EC Mandate on ITS, draft CEPT Report 71**

1. WG FM noted the LS from ECC#49 to ETSI on ITS.
2. WG FM noted the ACEA request that the whole 30 MHz range be made available from day one, if ETSI finds a suitable sharing solution.
3. Mr Vangeel (ETSI) introduced the ETSI responses to the questions of WG FM. He noted this had already been taken into account by SRD/MG in their resolution of public consultation comments.
4. Mr Rizzo (European Commission) noted ETSI will open a NWI to develop a proposal to allow the two technologies (ETSI G5 and LTE-V2X) to share access to the band.
5. WG FM noted the LS from EC to ECC on the Mandate to CEPT on ITS (schedule for CEPT Report 71). UITP and C2C-CC stated they opposed any delay in delivering the draft CEPT Report to EC. They stated that following the finalisation of ECC Report 290, there was nothing preventing the draft being presented to ECC. France and Germany supported this view. Sweden noted the practical issue that without any WG FM meeting in the autumn, an extension to the end of 2019 will most likely have no effect. WG FM agreed to finalise the draft CEPT Report and to submit it to the ECC.
6. ECO introduced the results of the public consultation, as resolved by SRD/MG and reviewed by the ECO.
7. Italy introduced a proposed change to section 5.1 of the draft CEPT Report 71.
8. A multi-country (F, D, AUT, SUI) proposal for section 4 in draft CEPT Report 71, suggested copying the ECC Report 290 executive summary as the new section 4.
9. The contribution from UITP SUG for draft CEPT Report 71 requested clarity in regulations. They also requested the table in the Report annex that shows current and foreseen urban rail deployments, be split by frequency band.
10. UITP stated that the operator of the London Underground, TfL, supported the harmonisation of the 5.9 GHz band for Urban Rail systems. UK stated that Ofcom was the radio spectrum regulator for the UK, not TfL.
11. Finland and 5GAA commented on the text on neutrality in the draft CEPT Report. WG FM agreed to delete the relevant footnote(s) and the references to it.
12. Austria introduced information relating to their national tender for ITS-G5 throughout the whole motorway network (**Info 004**).
13. France proposed two editorial amendments to the draft CEPT Report.
14. WG FM noted the LS from ITU-R WP 5A on the revision of REC ITU-R M.2084-0 on ITS. WG FM felt this was more of relevance to ETSI.
15. France suggested WG FM should consider the initiation of a WI to revise ECC Decision (08)01 on ITS. WG FM endorsed the proposal and agreed this issue should be communicated to the ECC.
16. WG FM tasked the ECO to make the following amendments to the draft CEPT Report 71:
* Add the French amendment (with minor change to English) to the Executive Summary.
* Substitute the Executive Summary of ECC Report 290 into Section 4.
* Splitting Table 2 (Urban Rail deployments) by frequency band.
* Delete footnote relating to non-technology neutrality in section 5.1.
* Align section 7 to the Executive Summary.
* Add all missing references.
* In sections 5.3.1 and 5.3.2 clearly identify the options.
1. Following the amendments made by ECO, additional text provided by the 5GAA in their document FM(19)068 was added with minor amendment.
2. WG FM agreed to forward the draft CEPT Report 71 to ECC for final approval and submission to the EC (**Annex 11**).

**4.8.3.3 Permanent EC Mandate on UWB**

1. None.

**4.8.4 Coexistence of RLANs in vehicles**

1. Mr Donoghue (ECO) introduced a revised draft of the explanatory paper related to 5 GHz RLAN in vehicles. He stated this had been revised following some analysis of attenuation in various train types, by the German regulator BNetzA. This work had been initiated to better understand whether operation in trains could be considered as equivalent to being indoors, as is a necessary requirement under the EU harmonisation decision for 5 GHz RLAN.
2. WG FM adopted the revised draft (**Annex 39**) and instructed ECO to amend the RLAN Topic Page on the ECC website based on the revised version.

**4.8.5 SRDs in UHF**

1. Mr Donoghue (ECO) introduced an LS from SRD/MG to SE24 (cc WG SE), sent 21 December 2018 about studies in 915 MHz. France introduced a request for all relevant technical information to be provided by ETSI in an SRdoc. WG FM noted the minutes of the WG SE #81 meeting where it was decided not to open a new work Item without endorsement from WG FM. UK stated that the requirement for an LS should not delay the initiation of the work. WG FM decided to send an LS to ETSI, copy to SE24, endorsing the SRD/MG LS and requesting ETSI to provide the necessary technical information (**Annex 31**).
2. Mr Donoghue (ECO) introduced an LS from SRD/MG to ETSI sent 21 December 2018, on SRD data networks - SRD under NAP control. He stated this was for information only.
3. Mr Donoghue (ECO) introduced an LS from SRD/MG to FM44 on draft ECC Report on M2M/IoT via satellite. WG FM noted this had already been discussed in FM44 (see **section 4.2.2**).
4. France introduced a proposal to send an LS to WG SE providing clarification on the scope of WI SE24\_69. Following revision to make it clear the priority is the 915 MHz bands, WG FM agreed to forward the LS to WG SE and SE24 (**Annex 50**).

**4.8.6 Wireless Power Transmission (WPT)**

1. See 4.8.2.9

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

1. See 4.8.2.3, amendment to ERC Rec 70-03 Annex 3.

**4.8.8 High-Definition Ground Based Synthetic Aperture Radars, TR 103 594**

1. None.

**4.8.9 Level Probing Radars (LPR), TR 103 595**

1. See section 5.2.17.

**4.8.10 SRD equipment using Nuclear Magnetic Resonance (NMR) technology in the frequency range 1 - 130 MHz, TR 103 517**

1. See section 4.8.2.5.

**4.8.11 UWB radiodetermination in the range 120 - 260 GHz, TR 103 498**

1. None.

**4.8.12 Work related to ITU-R**

1. None.

**4.8.13 SRD/MG chairmanship**

1. Following a secret ballot, Mr Andrew Gowans (UK) was elected as the Chairman of the SRD/MG.
2. 33 administrations had taken part of the vote (including proxy from Lichtenstein).

**4.8.14 Other issues**

1. LPRA informed about the “Radio Solutions 2019“ conference that will take place on 16-17 May 2019 in Groenlo / the Netherlands.
2. Details can be found under <http://www.lpra.org/lpra-rs2019-sponsored-and-hosted-by-nedap/>

***4.9 ECC PT1 (MFCN)***

**4.9.1 Progress report**

1. The WG FM Chair introduced the progress report. A summary of the main outcomes of the most recent meeting is available here: <https://cept.org/ecc/groups/ecc/ecc-pt1/news/latest-news-from-ecc-pt161/>

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

**4.9.2.1 Review of ECC Recommendation (08)02 (cross-border coordination in 900 MHz, 1800 MHz; GSM, UMTS, LTE, WiMAX)**

1. The WG FM Chair drew attention to annexes 1 and 2 of the PT1 progress report, which contained the revised version of this Recommendation and the comments resolution table. The meeting finally approved the revised document as provided by PT1 without any further changes (**Annex 53)**.

**4.9.3 Other issues**

1. None.

***4.10 EFIS Maintenance Group (EFIS/MG)***

**4.10.1 Progress Report**

1. The Chairman of the EFIS/MG, Mr Stefan Mayer-Bidmon (D), presented document FM(19)039, a short progress report from EFIS/MG.
2. No physical EFIS/MG meeting took place since the last meeting of WG FM.

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

1. The SRD/MG provided a new application term (document FM(19)035 - Annex 20), “NMR”, by finalising draft revised Annex 6 of ERC/REC 70-03 for approval for public consultation (see also section 4.8.2.5).
2. WG FM instructed SRD/MG to decide on the new term and to communicate this to EFIS/MG for consideration within ECC/DEC/(01)03 on EFIS and in ERC Report 25 (ECA Table).

**4.10.3 Update of ERC Report 25 (ECA Table)**

1. A new revision of the ERC Report 25 (ECA Table) will be prepared after WRC-19.
2. WG FM received an LS from ETSI on Maritime HENs below 526.5 kHz. Further information, see section 4.7.4.

**4.10.4 RSCOM/TCAM RIS Template**

1. A revised RIS Template for ECC Decision (18)06 on MFCN in the frequency band 24.25 - 27.5 GHz was provided by ECC PT1 (document FM(19)061 - Annex 5). The EFIS/MG will verify this RIS Template at its next meeting.

**4.10.5 EFIS software developments**

1. The EFIS/MG Chairman informed WG FM that it is planned to merge the three parts (EFIS, DocDB and API) under one platform.
2. In the action item list Annex 1 of the EFIS/MG progress report the further actions which have taken place were set out.

**4.10.6 ECO Report 05**

1. None.

**4.10.7 ECC Report 180**

1. None.

**4.10.8 Action points for the administrations**

1. Administrations are invited to note the action points relevant for them as described in the EFIS/MG progress report.
2. In this context the EFIS/MG Chairman also invited all WG FM PT Chairmen to provide new application terms as soon as possible to EFIS/MG to ensure a timely integration of these new terms into the EFIS database and the ECA Table (ERC/REP 25).

**4.10.9 Other issues**

1. The next meeting of EFIS/MG will take place in Dublin / Ireland, 2-3 April 2019, followed by a meeting at 26-27 September 2019 in Riga / Latvia.

***4.11 Radio Amateur Forum Group (RA/FG)***

**4.11.1 Progress Report**

1. There was nothing to report.

**4.11.2 RA/FG Chairmanship**

1. The WG FM Chairman informed the meeting that he had not received any nomination of a candidate for the chairmanship of the RA/FG from CEPT administrations. The former acting chairman had to stop his activity by the end of the year 2018.
2. Mr David Court (IARU-R1) introduced the IARU contribution (FM(19)036). The IARU proposed that Mr Barry Lewis be appointed as Chair of RA/FG, should there be no suitable nominations from administrations; his CV was attached.
3. The WG FM Chairman informed the meeting that in general from his point of view candidates for all entities of WG FM should preferably be provided by CEPT administrations. However, if no nomination is available from any administrations then another solution should be found which is acceptable for WG FM.
4. The meeting appointed Mr Barry Lewis (IARU) as Chair of the RA/FG until October 2020. With the shorter term (compared to the usual three years) administrations should be motivated to provide candidates as soon as possible.
5. The WG FM Chairman thanked the IARU for the support with regard to the chairmanship.

**4.11.3 Other issues**

1. None.

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

***5.1 Civil-Military meeting***

1. It is expected that the next civil-military meeting will take place after the WRC-19.

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

1. The general review of ECC/ERC deliverables was considered (doc. FM(19)002-Annex 2). An updated list, for presentation at ECC#50, was endorsed and is provided in **Annex 49**.
2. The FM44 Chairman introduced doc. FM(19)053R2 - Annex 3, proposing to reduce the number of ECC Decisions concerning satellite terminals by merging some of them. As long as this activity does not address new usage scenarios, FM44 proposed to do it under the review task (work item FM\_04). This way forward was endorsed by WG FM and will be reported to the ECC.

**5.2.1 New draft ECC Decision (19)01 for the withdrawal of ECC/DEC/(11)04 on PMR/PAMR/PPDR terminals**

1. On introduction and review by the meeting, WG FM adopted the draft new ECC Decision (19)01 for submission to the ECC for final approval for publication (**Annex 08**).

**5.2.2 Revision of ECC Decision (08)05 on digital PPDR NB an WB radio applications in 380 – 470 MHz**

1. On introduction and review by the meeting, WG FM adopted the draft revised ECC Decision (08)05 for submission to the ECC for final approval for publication (**Annex 09**).

**5.2.3 Revision of ECC Decision (16)02 on BB-PPDR at 700 MHz and 400 MHz**

1. On introduction and review by the meeting, WG FM adopted the draft revised ECC Decision (16)02 for submission to the ECC for final approval for publication (**Annex 07**).

**5.2.4 Revision of ECC/DEC/(03)04 on ‘Exemption from Individual Licensing of Very Small Aperture Terminals (VSAT) in 14.25-14.50 GHz and 10.70-11.70 GHz’**

1. The FM44 Chairman presented the comments from the public consultation and the resolution done by FM44. He explained that some proposals to raise EIRP maximum values were refused, because they were out of the scope of the revision that is limited to the removal of administrations useless constraints. Those proposals will be taken into account on the scope of the general review of satellite ECC Decisions (see section 5.2). Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (03)04 to be sent to ECC for final approval and publication (**Annex 25**).

**5.2.5 Revision of ECC/DEC/(05)01 on ‘The use of the band 27.5-29.5 GHz by the FS and uncoordinated earth stations of the FSS’**

1. The FM44 Chairman presented the editorial comments from the public consultation. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (05)01 to be sent to ECC for final approval and publication (**Annex 24**).

**5.2.6 Revision of ECC/DEC/(05)09 on ‘The free circulation and use of ESV operating in FSS networks in 5925-6425 MHz and 3700-4200 MHz’**

1. The FM44 Chairman presented the editorial comments from the public consultation. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (05)09 to be sent to ECC for final approval and publication (**Annex 23**).

**5.2.7 Revision of ECC/DEC/(05)10 on ‘The free circulation and use of ESV operating in FSS networks in 14-14.5 GHz, 10.7-11.7 GHz and 12.5-12.75 GHz’**

1. The FM44 Chairman presented the editorial comments from the public consultation. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (05)10 to be sent to ECC for final approval and publication (**Annex 22**).

**5.2.8 Revision of ECC/DEC/(05)11 on ‘The free circulation and use of AES operating in 14.0-14.5 GHz, 10.7-11.7 GHz and 12.5-12.75 GHz’**

1. The FM44 Chairman presented the comments from the public consultation and the resolution done by FM44. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (05)11 to be sent to ECC for final approval and publication (**Annex 26**).

**5.2.9 Revision of ECC/DEC/(06)03 on ‘Exemption from individual licensing of HEST operating in 10.70-12.75 GHz or 19.70-20.20 GHz and 14.00-14.25 GHz or 29.50-30.00 GHz’**

1. The FM44 Chairman presented the editorial comments from the public consultation. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (06)03 to be sent to ECC for final approval and publication (**Annex 21**).

**5.2.10 Revision of ECC/DEC/(15)04 on ‘ESOMPs operating with NGSO FSS systems in 17.3-20.2 GHz, 27.5-29.1 GHz and 29.5-30.0 GHz’**

1. The FM44 Chairman presented the result of the public consultation and the resolution of comments done by FM44. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (15)04 to be sent to ECC for final approval and publication (**Annex 20**).
2. The FM44 Chairman presented a proposal from FM44 for a new work item to amend and add aircraft earth stations to the Decision. WG FM agreed on the work item (**Annex 27**) and on an LS (**Annex 28**) to request WG SE to carry out the related technical studies. The FM44 Chairman also clarified that support from SE19 and SE40 are expected to complete the work.

**5.2.11 Revision of ECC/DEC/(17)04 on ‘The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS systems in 10.7-12.75 GHz and 14.0-14.5 GHz’**

1. The FM44 Chairman presented the result of the public consultation and the resolution of comments done by FM44. Proposals were agreed by the meeting and WG FM adopted the draft revised ECC Decision (17)04 to be sent to ECC for final approval and publication (**Annex 19**).

**5.2.12 Revision of ECC Decision (06)04 (UWB below 10.6 GHz)**

1. Mr Donoghue (ECO) introduced the result of the public consultation of the revision of ECC Decision (06)04. No comments had been received during public consultation. WG FM adopted the revision of ECC Decision (06)04 to be brought forward to ECC for final approval for publication (**Annex 51**).

**5.2.13 Revision of ECC Decision (07)01 (UWB, specific material sensing devices)**

1. Mr Donoghue (ECO) introduced the result of the public consultation of the revision of ECC Decision (07)01. No comments had been received during public consultation. WG FM adopted the revision of ECC Decision (07)01 to be brought forward to ECC for final approval for publication (**Annex 52**).

**5.2.14 Revision of ECC Decision (04)08 on WAS/RLANs at 5 GHz**

1. No work on a revision of ECC/DEC/(04)08 has commenced in FM57. This is mainly due to the priority to complete the two CEPT Reports, as referred to in the EC Mandate, and that the results of WRC-19 may have an impact on any revision.

**5.2.15 Revision of ECC Decision (05)02 on the use of the frequency band 169.4 - 169.8125 MHz**

1. Mr Donoghue (ECO) introduced the proposal for public consultation of the revision of ECC Decision (05)02. The proposal relates to the amendment to remove restrictions on concentrators and multiplexes. An additional proposal to remove the restriction preventing users overriding LBT limits was opposed by the Russian Federation. WG FM agreed to retain this LBT requirement. WG FM adopted the revision of ECC Decision (05)02 to be brought forward to ECC for approval for public consultation (**Annex 47**).

**5.2.16 Revision of ECC Decision (09)01 on the harmonised use of the 63 - 64 GHz frequency band for Intelligent Transport Systems (ITS)**

1. Mr Donoghue (ECO) introduced the proposal for public consultation of the revision of ECC Decision (09)01. The proposal relates to the amendment of the frequency range. WG FM approved the revision of ECC Decision (09)01 for public consultation (**Annex 45**).

**5.2.17 Revision of ECC Decision (11)02 on industrial Level Probing Radars (LPR) operating in frequency bands 6 - 8.5 GHz, 24.05 - 26.5 GHz, 57 - 64 GHz and 75 - 85 GHz**

1. Mr Donoghue (ECO) introduced the proposal for public consultation of the revision of ECC Decision (11)02. The proposal relates to the amendment of the restriction on tilt angle of LPR in the 75-85 GHz frequency band. WG FM approved the revision of ECC Decision (11)02 for public consultation (**Annex 46**).

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

1. See section 4.9.2.1.

**5.2.19 Revision of ECC Recommendation (12)03 (field strength measurements in 30 MHz to 6000 MHz)**

1. Mr Donoghue (ECO) introduced the result of the public consultation of the revision of ECC Recommendation (12)03 (“Determination of the radiated power through ground-based field strength measurements in the frequency range from 30 MHz to 6000 MHz“). No comments had been received during public consultation. WG FM finally approved the revision of ECC Recommendation (12)03 for publication (**Annex 18**).

**5.2.20 Withdrawal of ECC Recommendation (16)04 (field strength measurements in 87.5 - 108 MHz)**

1. FM22 proposed to withdraw this ECC Recommendation because its content was integrated in the revised ECC Recommendation (12)03.
2. WG FM agreed to finally decide on this proposal at its meeting in June 2019.

**5.2.21 Review of ECC Recommendation (11)08 (indoor GNSS pseudolites in 1559 - 1610 MHz)**

1. The FM44 Chairman explained that discussions occurred with the European Commission (the operator of Galileo) and Eurocontrol about the need to revise the Recommendation. He suggested to await the next WG FM meeting to decide whether the document should be revised based on contributions to the next FM44 meeting. The proposal was agreed by WG FM.

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

1. The WG FM Chairman introduced a liaison statement from WG SE (FM(19)047R1). Some draft revised ECC Recommendations related to the fixed service were approved for public consultation at the 81st meeting of WG SE.

**5.3.1 ECO Report 04**

1. None.

***5.4 Roadmap on 5G***

1. The WG FM Chairman referred to the latest version of the CEPT Roadmap on 5G (FM(19)002 - Annex 3) as agreed by the ECC in October 2018 (FM(19)002 - section 10.6).
2. He emphasised that an update of the Roadmap is expected for the forthcoming ECC meeting. For WG FM e.g. section D (‘Other spectrum challenges’) is of interest, especially the 60 GHz range (discussed during the WG FM meeting with regard to draft CEPT Report 70 and draft revised Annex 3 of ERC/REC 70-03).

***5.5 Spectrum regulation for drones***

1. The CG Chairman Mr Florian Cziczatka (AUT) presented doc. FM(19)041, the progress report. The CG had two web meetings on 9 October 2018 (notes in Annex 1) and on 9 November 2018 (notes in Annex 2).

**5.5.1 New Project Team**

1. The CG Chairman presented proposed Terms of Reference (Annex 3 to doc. FM(19)041), which have been developed at the last web meeting as Germany volunteered a candidate to chair a new Project Team on Drones. The ToR have been further improved and then finally agreed by WG FM (**Annex 55**).
2. WG FM endorsed the establishment of a new Project Team on Drones (FM59) and appointed Mr Oliver Keden (D) as the new Chairman of FM59 by acclamation.
3. WG FM agreed transferring all open issues to the new FM59 and tasked the ECO to make the necessary changes on the ECC webpage.
4. The meeting and the WG FM Chairman thanked Mr Cziczatka for chairing the CG Drones over the last years.

**5.5.2 Frequency options, study request**

1. The CG chairman presented a proposed LS to WG SE on studies needed on Unmanned Aircraft Systems (UAS) in the 1880-1900 MHz, 1900-1920 MHz and 5000-5010 MHz bands (annex 4 to doc. FM(19)041)
2. In absence of a representative of DECT Forum, APWPT presented their document on the clarification of the use of DECT for drones in the band 1880-1900 MHz (doc. FM(19)057). The document, which had been also sent to SE7, was noted by WG FM.
3. WG FM finally agreed sending a LS to WG SE on studies needed on Unmanned Aircraft Systems (UAS) (**Annex 54**).

**5.5.3 Other issues**

1. WG FM noted the LS from ETSI to ECC PT1 (doc. FM(19)011) concerning UAVs using MFCN and passed it to FM59 for further considerations.
2. With the adoption of the ToR of the new Project Team FM59 as well as the appointment of the new Chairman, the CG Drones has fulfilled its task and, therefore, was closed by WG FM. The Chairman of the CG Drones thanked all members of the CG for their active participation and support brining the work forward. Finally, the Chairman of CG Drones congratulates the new Chairman of FM59 and wished him all the best.

**6. New work items**

***6.1 Audio PMSE within 25 MHz – 3 GHz***

1. No information has been provided for this meeting. A future contribution from ETSI is expected.

***6.2 Multiple Gigabit Wireless Systems (MGWS) within 57 – 71 GHz***

1. The relevant ETSI System Reference Document is expected for the next WG FM meeting.

***6.3 Frequency band 1900 – 1920 MHz (DECT)***

1. No information has been provided for this meeting. A future contribution from ETSI is expected (update of TR 103 149). The band 1900 - 1920 MHz is also under discussion with regard to FRMCS and drones (see agenda items 4.5 and 5.5).

***6.4 ECC workshop on verticals / stakeholders (02-03 May 2019)***

1. The WG FM Chairman introduced an early draft programme for the CEPT workshop as provided on the ECC website (https://cept.org/ecc/cept-workshop-on-new-spectrum-solutions-for-industry-sectors) and referred to the discussions at the latest ECC meeting (FM(19)002 - sections 10.6 and 12.2). The workshop will be held at the Scandic Hotel in Copenhagen / Denmark.
2. APWPT proposed a sub-item on ‘PMSE usage cases’ with regard to the item on ‘Media/entertainment’ (AI 3) which was accepted by the meeting.
3. The WG FM Chairman invited the WG FM participants to provide proposals as early as possible, but anyway before the forthcoming ECC meeting in March 2019.

***6.5 Critical infrastructure utility operations requirements (SRdoc. TR 103 492)***

1. An SRdoc was received through an LS from ETSI regarding harmonised spectrum access for utilities in the VHF, 400MHz range and the range 1350 – 1400 MHz.
2. WG FM considered this request and agreed that at this point in time, the availability of new draft ECC Decision (19)02 would cater for and provide sufficient spectrum in the VHF and lower UHF bands for the variety of utility communications and Smart Grid control systems deployed across CEPT administrations and that no further harmonisation measure was necessary. An LS back to ETSI TC ERM noting this was drafted and agreed by WG FM (**Annex 10**).

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

***7.1 EC recent activity***

1. The EC Counsellor Mr Rizzo informed the meeting about the recent adoption of the European Electronic Communications Code (Directive (EU) 2018/1972), and Regulation (EU) 2018/1971 establishing BEREC and the BEREC Office.

**7.1.1 RSC#65 meeting (17 October 2018)**

1. Items discussed at this RSC meeting included the Mandate on ITS 5.9 GHz, and draft Decisions on 5G pioneer bands 3.6 GHz and 26 GHz.

**7.1.2 RSC#66 meeting (05 – 06 December 2018)**

1. At this RSC plenary the Implementing Decision on 3400-3800 MHz (3.6 GHz) received a favourable vote and was thereafter adopted by the EC (publication in the OJ is pending).
2. Discussions continued on the 26 GHz band. A first draft of an EC Decision updating UWB rules was discussed and a document about drones was presented by the Commission. Final draft proposals on 26 GHz and UWB may be submitted for vote at the next RSC in March 2019.

**7.1.3 RSPG#47 meeting (03 October 2018)**

1. The RSPG adopted an Opinion on WRC-19 and a report on the results of the “Good Offices”.

**7.1.4 RSPG#48 meeting (30 January 2019)**

1. The EC Counsellor also informed the meeting about RSPG#48 of 30 January 2019 for which no official minutes were available yet. The RSPG adopted a report on the impact of the EECC on the work of RSPG and an Opinion on 5G implementation challenges, as well as an Opinion on EU coordination at ITU World Radiocommunication Conferences.

***7.2. ETSI recent activity***

**7.2.1 Overview on ETSI SRdocs**

1. The meeting was informed that the URL in the draft meeting agenda pointing to the SRdoc overview on the ETSI Portal is an old link pointing to the 2018 version of the document. The correct link to be used (for 2019) is:

<https://portal.etsi.org/Portals/0/TBpages/ERM/Docs/2019_ERM%20SRdoc%20overview.doc>

1. From this overview, one can read that since October 2018 ETSI published two SRdocs, 4 new SRdocs have been approved for publication and about 11 SRdocs are currently in the drafting stage.

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

1. The meeting was also reminded on the RED section on the ETSI portal (<https://www.etsi.org/red>) where ETSI maintains information about the RED including the list of standards already published by ETSI.
2. WG FM had been informed earlier that the European Commission, via Ernst & Young and their consultants, is doing a detailed review of standards before they are listed in the OJEU. The E&Y consultants are involved at three different stages during the development process but it is still the case that standards are being refused because of various issues and this was causing a lot of frustration among ETSI members. The EC held a workshop on 6 December 2018 and invited rapporteurs/chairmen from various ETSI technical bodies to participate this with the objective to discuss the major issues that are seen by the EC when reviewing ETSI standards.

**7.2.3 Other issues**

1. Document FM(19)056 contains an LS from ETSI addressed to the ECC and its Working Groups, WG FM and WG SE, about the ETSI procedures for coordination of spectrum issues and how ETSI communicates these to the CEPT. FM(19)056 – Annex contains these procedures in detail. They have not changed from the last time ETSI submitted them to the WG FM, but ETSI thought it was useful to refresh this as there is a new Chairmen for ECC and for WG SE.

**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 (CEPT Reports / ECC Decisions)**

1. Draft new **ECC Decision (19)02** on land mobile systems (**Annex 06**), to ECC for final approval for publication;
2. Draft amended **ECC Decision (16)02** on BB PPDR (**Annex 07**), to ECC for final approval for publication;
3. Draft new **ECC Decision (19)01** on the withdrawal of ECC Decision (11)04 (**Annex 08**), to ECC for final approval for publication;
4. Draft amended **ECC Decision (08)05** on NB and WB PPDR in 380-470 MHz (**Annex 09**), to ECC for final approval for publication;
5. Draft **CEPT Report 71** on ITS (**Annex 11**), to ECC for final approval for publication and sending it to the EC;
6. Draft new **ECC Decision (19)03** on RR Appendix 18 VHF channels (**Annex 12**), to ECC for final approval for publication;
7. Draft amended **ECC Decision (17)04** on NGSO FSS (**Annex 19**), to ECC for final approval for publication;
8. Draft amended **ECC Decision (15)04** on ESOMPs operating with NGSO FSS (**Annex 20**), to ECC for final approval for publication;
9. Draft amended **ECC Decision (06)03** on HEST (**Annex 21**), to ECC for final approval for publication;
10. Draft amended **ECC Decision (05)10** on ESV in 14 GHz (**Annex 22**), to ECC for final approval for publication;
11. Draft amended **ECC Decision (05)09** on Earth Stations on Board Vessels (**Annex 23**), to ECC for final approval for publication;
12. Draft amended **ECC Decision (05)01** on the 28 GHz FS and FSS (**Annex 24**), to ECC for final approval for publication;
13. Draft amended **ECC Decision (03)04** on the exemption from individual licensing of VSAT (**Annex 25**), to ECC for final approval for publication;
14. Draft amended **ECC Decision (05)11** on the free circulation and use of AES (**Annex 26**), to ECC for final approval for publication;
15. Draft **CEPT Report 70** on SRDs (7th update) (**Annex 33**), to ECC for final approval for publication and sending it to the EC;
16. Draft amended **ECC Decision (05)02** on 169 MHz (**Annex 47**), to ECC for public consultation approval;
17. Draft amended **ECC Decision (06)04** on UWB (below 10.6 GHz) (**Annex 51**), to ECC for final approval for publication;
18. Draft amended **ECC Decision (07)01** on Material Sensing Devices using UWB (**Annex 52**), to ECC for final approval for publication;

**b) Other deliverables adopted for submission to the ECC**

1. Draft LS from ECC to 3GPP and ETSI on developments in the 410 – 470 MHz band (**Annex 30**);
2. Updated list of review of ECC/ERC/ECTRA Decisions for regular review process (**Annex 49**);

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

1. New **ECC Report 292** on the 400 MHz PMR/PAMR frequencies (**Annex 05**);
2. New **ECC Report 293** on mobile spectrum monitoring units (**Annex 17**);
3. Revised **ECC Recommendation (12)03** on field strength measurements in the range from 30 MHz to 6000 MHz (**Annex 18**);
4. New **ECC Report 294** on RMR (**Annex 32**);
5. Revised **Annex 3** of **ERC/REC 70-03** (**Annex 35**);
6. Revised **Annex 5** of **ERC/REC 70-03** (**Annex 36**);
7. Revised **Annex 9** of **ERC/REC 70-03** (**Annex 37**);
8. Revised **Annex 10** of **ERC/REC 70-03** (**Annex 38**);
9. Revised **ECC Recommendation (08)02** on x-border coordination in 900 and 1800 MHz (**Annex 53**);

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

1. Draft revised **Annex 2** of **ERC/REC 70-03** (**Annex 16,** see also Annex 56);
2. Draft revised **Annex 3** of **ERC/REC 70-03** (**Annex 34**);
3. Draft revised **Annex 1** of **ERC/REC 70-03** (**Annex 41,** see also Annex 42);
4. Cover note to draft revised Annex 1 of ERC/REC 70-03 (**Annex 42,** see also Annex 41);
5. Draft revised **Annex 6** of **ERC/REC 70-03** (**Annex 43**);
6. Draft revised **Annex 11** of **ERC/REC 70-03** (**Annex 44**);
7. Revised **main body text** of **ERC/REC 70-03** (**Annex 40**);
8. Draft amended **ECC Decision (09)01** on 60 GHz ITS (**Annex 45**);
9. Draft amended **ECC Decision (11)02** on LPR (**Annex 46**);
10. Cover letter to draft revised Annex 2 of ERC/REC 70-03 (**Annex 56,** see also Annex 16);

**e) Other deliverables**

1. LS to ETSI regarding the SRdoc (TR 103 492) on utilities spectrum access arrangements (**Annex 10**);
2. LS to ETSI on the coexistence of solid state maritime and conventional radars (**Annex 13**);
3. New work item ‘WI FM58\_03’ on the digitalisation of maritime voice UHF (**Annex 14,** see also Annex 15);
4. LS to ETSI on the new work item ‘WI FM58\_03’ (**Annex 15**, see also Annex 14);
5. New work item for FM44 on NGSO Ka Band aircraft ESOMPS (**Annex 27**);
6. LS to WG SE on technical studies in order to update ECC Report 217 (**Annex 28**);
7. LS to ETSI on 13 GHz aircraft ESIM activities (**Annex 29**);
8. LS to ETSI on an SRdoc on NBN systems (**Annex 31**);
9. LS to ETSI on Annex 3 (wideband systems in 2.4 GHz) of ERC/REC 70-03 (**Annex 48**);
10. LS to WG SE and SE24 on SRD in the UHF range (**Annex 50**);
11. LS to WG SE (and PT1) on studies on UAS (**Annex 54**);
12. Terms of Reference of the new FM59 on UAS (**Annex 55**);
13. Adopted revised ‘explanatory paper’ on 5 GHz RLANs in vehicles (**Annex 39**);
14. Further information is available on the WG FM website:

<https://www.cept.org/ecc/groups/ecc/wg-fm/news/results-of-the-wgfm93-in-rome-italy-04-08-february-2019/>

**8. Any Other Business**

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

1. Mr Donoghue (ECO) introduced the ECO Bulletin on on-going/new issues in other regions or organisations, originally submitted to ECC#49, 17 October 2018.
2. He highlighted the listed spectrum developments initiated in other world regions.
3. There were no questions or suggestions from WG FM after the presentation.
4. Mr Donoghue explained that it is possible to subscribe to a monthly update alert service in the documentation database under: <https://www.ecodocdb.dk/document/updateHistory>.
5. Administrations are invited to check and update their national contact points under: <https://cept.org/ecc/national-administration-and-contact-points>.

**9. 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.

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

***10.1 Work Programme***

1. The WG FM Chairman reminded that Chairmen of PTs, MGs and FGs in cooperation with Mr Robin Donoghue (ECO) should incorporate or update information on work items in the ECC work programme database (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 Robin Donoghue (ECO).

***10.2 Meeting Schedule***

1. The WG FM Chairman invited the participants to note the schedule of meetings in 2019 and consider possible venues for all WG FM meetings in 2020 and in 2021.
2. The schedule for future WG FM and Project Team meetings with indicating ECC, ECC PT1 meetings is as follows:

| **Meeting** | **Date** | **Location** |
| --- | --- | --- |
| **WG FM #93** | **04 – 08 February 2019** | **Rome, Italy** |
| FM57 #4.2 | 11 February 2019 | Web-meeting |
| **ECC #50** | **05 – 08 March 2019** | **Brighton, UK** |
| FM51 #33 | 11 – 13 March 2019 | ECO, Copenhagen |
| EFIS/MG #43 | 02 – 03 April 2019 | Dublin, Ireland |
| FM56 #9 | 04 – 05 April 2019 | Bonn, Germany |
| FM22 #51 | 09 – 12 April 2019 | ECO, Copenhagen |
| SRD/MG #76 | 10 – 12 April 2019 | Ankara, Turkey |
| FM51 #34 | 24 – 25 April 2019 | Erlangen, Germany |
| FM58 #2 | 24 – 25 April 2019 | Bonn, Germany |
| FM57 #5 | 26 April 2019 | ECO, Copenhagen |
| *ECC – CEPT workshop on new spectrum solutions for industry sectors (‘verticals’)* | *02 – 03 May 2019* | *Copenhagen, Denmark* |
| FM44 #53 | 15 – 17 May 2019 | Paris, France |
| FM57 #6 | 16 – 17 May 2019 | ECO, Copenhagen |
| **WG FM #94** | **03 – 07 June 2019** | **Tallinn, Estonia** |
| **ECC #51** | **02 – 05 July 2019** | **Sofia, Bulgaria** |
| *ECC -* [*Sixth CEPT workshop on “European Spectrum Management and Numbering”*](https://www.cept.org/ecc/groups/ecc/client/meeting-calendar/event-details/?meetingid=2559) | *03 September 2019* | *ECO, Copenhagen* |
| FM56 #10 | 04 – 05 September 2019 | Lille (ERA), France |
| FM44 #54 | 17 September 2019 | TBD |
| SRD/MG #77 | 18 – 20 September 2019 | TBD |
| EFIS/MG #44 | 26 – 27 September 2019 | TBD, Latvia |
| FM56 #11 | 16 – 17 December 2019 | Munich, Germany |
| **…** | **…** | **…** |

1. Further information is available on the ECO website: <http://www.cept.org/ecc/meeting-calendar>.

**11. Minutes of the Meeting**

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

**12. Closure of the Meeting**

1. As this WG FM was the last one for Mr Kuha Sithamparanathan (Ofcom UK), the WG FM Chairman thanked him for his years of continual involvement in WG FM and his successful work for FM54.
2. This was also the last WG FM meeting for Mr Patrice Juillard from the French Ministry of the Interior. Therefore the WG FM Chairman thanked him for his long-term participation in WG FM.
3. Again, the WG FM Chairman thanked the Italian Ministry of Economic Development (MiSE) for hosting the meeting. He especially addressed his thanks to Ms Giuseppina Infantino and Mr Donato Margarella from MiSE and their colleagues in the background for the smooth organisation of the meeting and their support.
4. He once again thanked Dr Eva Spina, Director General of the Directorate-General for the planning and management of the radio spectrum of MiSE, for the kind opening speech.
5. In addition he thanked MiSE for the social event on Wednesday afternoon. The participants of the meeting joined an interesting tour through the Historical Museum of Communications in Rome. This was followed by a gala dinner at Restaurant “La Glorietta”, kindly hosted by Qualcomm.
6. The WG FM Chairman thanked the WG FM delegates, the Project Team / MG / FG Chairmen, the ECO (Mr Robin Donoghue), and his Vice Chairmen Mr Stephen Talbot (UK) and Mr Vincent Durepaire (F) for their support.
7. He also thanked his WG FM administrative secretary Mr Ali Daheur (D) and his technical secretary Mr Silvio Schwarz (D) for their active assistance.
8. Finally he closed the meeting and wished all the delegates a safe journey home.

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