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| Working Group FM | | FM(14)117 | |
| 80th Meeting | | |  |
| Trondheim, 26 – 30 May 2014 | | |  |
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**1 Opening of the Meeting**

1. The new WG FM Chairman, Mr Thomas Weilacher (D), opened the 80th meeting of the WG FM and thanked the Norwegian Administration for hosting the meeting.
2. He introduced his team, Ms Hannelore Schwarz (Secretary Administrative) and Mr Silvio Schwarz (Secretary Technical).
3. The WG FM Chairman thanked Mr Sergey Pastukh (RUS), the former WG FM Chairman, for inviting the new team to Moscow in April for handing over the relevant information and providing guidance and recommendations. This coordination meeting was considered as very supportive for the new team.
4. Mr Geir Jan Sundal, Director of the department for frequency management of the Norwegian Post and Telecommunications Authority (NPT) welcomed the participants to Trondheim, Norway’s third largest city. Trondheim is home of the only Technical University in the country, he remarked. Mr Sundal emphasised the importance of radio spectrum regulation, not only for technical but more and more for financial reasons. He mentioned the large number of nominations which have to be carried out during this meeting and encouraged CEPT administrations to provide candidates. Mr Sundal introduced Ms Cathrine Solheim from NPT, who had carefully organised the meeting and gave some practical information for the participants.
5. The meeting was attended by 108 delegates from 32 CEPT Administrations, EC, ECO, ETSI and 18 international organisations. The list of participants is given in **Annex 02**.
6. The list of documents is in **Annex 03**. The list of abbreviations used in these minutes is in **Annex 04**.

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

1. The WG FM Chairman introduced an updated version of the draft agenda. After some minor changes the agenda of the 80th WG FM meeting was approved. It can be found in **Annex 01** of these minutes.

**3 Report from ECC Plenary**

1. The WG FM Secretary, Mr Silvio Schwarz (D), presented the results of the 36th ECC meeting in Cluj-Napoca, Romania, 11-14 March 2014 (Doc. FM(14)095) related to WG FM.
2. The main decisions of the ECC with regard to WG FM activities are provided below:

* No ECC Decisions were sent by WG FM to ECC for consideration, therefore no follow up actions were expected from ECC.
* The ECC agreed on the outline of the EC Mandate on the “Unpaired terrestrial 2 GHz bands” and submitted it to the European Commission for discussion (47th RSC meeting). The outline of the response to the Commission was not published on the ECC website, but the final CEPT Report on this Mandate, including also the information from the outline, will be published on the ECC website.
* The ECC considered and approved the Interim CEPT Report on the EC mandate on 5 GHz WAS/RLANs.
* Besides Mr Thomas Weilacher, who was appointed as the new WG FM Chairman, the former WG FM Chairman Mr Sergey Pastukh (RUS) was appointed as a new ECC Vice Chairman.
* The ECC considered the results of the ECC workshop on spectrum occupancy measurement. It was agreed that the assessment should be published as an ECC Statement.

1. The tasks assigned by the 36th ECC meeting to WG FM were also presented, which were further considered under the corresponding agenda items and which are reflected in the minutes under the respective sections.
2. The meeting took on board the results of the 36th ECC meeting.
3. ETSI asked for clarification on the information given in the bullets under section 2 (RLAN in 5 GHz) of document FM(14)095, as they appeared to express opposite and conflicting views.
4. The WG FM Chairman reminded the meeting that an extensive debate took place on this subject in the previous WG FM meeting. It was highlighted that, if there is a primary service allocated to a band and another primary service is considered for allocation to the same band later, this new service needs to protect the existing primary service, thus, it may be seen as a “secondary service” towards the incumbent primary service. It was further mentioned that the Interim CEPT Report on the RLANs in the 5 GHz was already delivered to the Commission and that the text to be included in the final CEPT Report needs to be carefully worded to avoid misunderstandings.
5. It was remarked by Sweden that doc. FM(14)095 does not show the whole picture on this issue and that complete information can be found in the minutes of the 36th ECC meeting (Annex to FM(14)095) and in the Interim Report which had been sent to the European Commission.

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

**4.1 FM PT 22 (Monitoring)**

**4.1.1 Progress Report**

1. The Chairman of FM22, Mr Ralf Trautmann (D), presented document FM(14)080, the progress report of the Project Team. One meeting of FM22 was held since the last meeting of WG FM. This meeting was held in Vilnius and 48 delegates representing 25 countries, ECO and Orange were also registered. In an additional go-to meeting a CEPT contribution to ITU-R WPs 1B and 1C was drafted.
2. FM22 noted the topic on LTE coverage obligations in the minutes of the ECC meeting held in Cluj-Napoca, 11-14 March 2014. However, so far ECC PT1 did not approach FM22 in this regard.
3. The German administration had reported that the Galileo Control Centre in Germany located at the DLR (“Deutsches Zentrum für Luft- und Raumfahrt”) site at Oberpfaffenhofen was recently interfered by a nearby radio amateur station operating ATV (amateur television) at 1276.5 MHz and 1291 MHz. The frequency range 1260 MHz-1300 MHz is assigned to the Galileo public regulated service (PRS) to provide safety relevant applications. For the time being this is still a local problem. However, once PRS is operational, the problem may have a nation-wide or European-wide dimension. In this case the withdrawal of all licenses for the operation of ATV on a secondary basis in the PRS band may have to be considered.
4. The International Amateur Radio Union reported that the IARU works together with various administrations to find mitigation methods in relation to ATV use.
5. Austria has also identified this problem and is considering forbidding ATV emissions in the GNSS band.
6. Then the Chairman of FM22 went further through the agenda item by item.

**4.1.2 Monitoring campaigns in the HF range**

1. The automatic data collection in the HF range is on-going. The schedule ends this year. The administration of The Netherlands will prepare a new schedule for the time up to 2018.

**4.1.3 Frequency management during major events**

1. Mr Trautmann introduced document FM(14)064, the draft revision of ECC Report 44 on frequency management during major events. It is a complete revision of the existing ECC Report 44 and will supersede the original edition of ECC Report 44.
2. France proposed to introduce in section 3 a link to the national contact points listed on the PMSE webpage on the ECO website.
3. ECO suggested that FM51 is also invited to comment the draft report during public consultation.
4. Regarding section 3.6 France proposed to insert a link to a form which had been developed earlier. France will recheck the form and may submit it during the public consultation.
5. CRAF and ESA proposed to include a sentence indicating that purely passive bands should not be used for frequency assignments. It was concluded to insert a sentence under section 3.6.
6. France expressed concerns regarding figures 1 and 2 because of possible copyright problems. The meeting agreed to remove the copyrighted material from the figures.
7. APWPT submitted some figures regarding Annex 5. As the structure of the submitted table does not match with that in Annex 5, it was decided that new figures should be provided during the public consultation.
8. A list of references will be added by ECO.
9. The draft revised ECC Report 44 adopted for public consultation by WG FM can be found in **Annex 05**.

**4.1.4 Radio interference statistics**

1. ECO confirmed that the ECO summary of the annual interference statistics in 2013 is superseded by document FM(14)78r1, the FM22 evaluation of the ECO summary on the responses to the questionnaire to CEPT Administrations on interference statistics. The comparison with the questionnaire regarding the interference cases in 2012 shows a decline of interference cases for some radio applications. Mr Trautmann indicated that future questionnaires may be further improved by extending the explanation of some of the questions to improve the common understanding.
2. France asked what actions FM22 could undertake to minimise the number of interference cases. Mr Trautmann replied that the purpose of this statistical evaluation is to inform spectrum managers who may initiate appropriate action. Enforcement activities have to be performed on a national level. However, FM22 is open to receiving any proposals to support these activities.
3. ECO confirmed problems due to increased mobile jamming and spoofing which had already been identified by the GNSS community. This was also confirmed by a number of respondents to the interference questionnaire. ECO will submit recent information on mobile jamming and jammer detection to FM22.
4. The Czech Republic highlighted the problem of 5 GHz WAS/RLANs equipment where the DFS functionality can be disabled. The meeting noted that this problem is well known and described in ECC Report 192.
5. Finland proposed the publication of the results of the questionnaire. WG FM decided that ECO will provide a suitable link on the FM22 website. ECO will also inform ADCO.
6. The meeting noted and endorsed the FM22 evaluation and supported the development of a new questionnaire for next year.

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

1. First discussions about the data format for data collected from mobile monitoring stations have been started within FM22. A forum on this topic was opened to foster the discussion between meetings.

**4.1.6 New ECC REC on measurement uncertainty**

1. The Project Team started its work on this very complex issue. The goal is to create a new ECC Recommendation on this issue. This will describe the general approach for calculation of measurement uncertainty, will contain a basic example to illustrate the use and the dependencies of various factors and a practical example from an RF field measurement. A FM22 forum on this topic was opened to foster the discussion between meetings.

**4.1.7 CEPT contribution to ITU-R WP 1B and 1C**

1. Mr Trautmann introduced document FM(14)063, a draft input contribution to the next ITU-R WPs 1B and 1C to inform these groups about the ECC conclusions of the spectrum occupancy workshop, held 15 January 2014 in Mainz, Germany.
2. Following revisions the meeting adopted this CEPT contribution to be submitted by Germany within the framework of CEPT (see **Annex 06**).

**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 FM44 as in document FM(14)106.
2. He informed the meeting that an FM44 internal exchange of information about national procedures and conditions applied to space segment authorisations has begun. A specific questionnaire is under development.
3. Italy asked whether this questionnaire is proposed to be a future WG FM questionnaire or limited to FM44 level. The Chairman of FM44 clarified that the questionnaire is foreseen to be limited to the FM44 level.

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

1. Mr Weber (ECO) informed the meeting that an ETSI SRdoc on cognitive techniques for improved coexistence between satellite communications and the fixed service in Ka-Band has been prepared in ETSI TC SES and will be provided to WG FM soon. He proposed that FM44 takes into account the document as soon as possible and not to wait the formal reception of the document at the next WG FM meeting. This was accepted by the meeting.
2. FM44 proposed to change the target date for WI FM44\_14 (Ka-Band 17.7-19.7 GHz) to the 1st of May 2015 in order to take into account the ETSI SRdoc in the on-going activities.

**4.2.3 Carrier Identification (CID)**

1. The development of an ECC Report on Carrier ID (CID) is on-going in FM44.

**4.2.4 NGSO ESOMPs in 27-29 GHz**

1. FM44 continued the work on NGSO ESOMPs. As requested by the last WG FM meeting, the draft ECC Report is planning to address coordination and sharing capabilities of NGSO ESOMPs candidates with future GSO and NGSO applications.
2. A liaison statement with a study request was sent by FM44 to SE40 to calculate the protection distances around airfields required for NGSO ESOMPs and based on the methodology in ECC Report 66.
3. A response liaison statement from ETSI (document FM(14)062) confirmed the adoption of a work item for the creation of a harmonised European standard for NGSO ESOMPs, as it was requested by WG FM.
4. To take the benefits of the work initiated by ETSI at TC SES, FM44 proposed to change the target date for WI FM44\_23 (NGSO ESOMPs) to the 1st March 2015.

**4.2.5 Review of ECC/DEC/(05)11 on Ku-Band AES**

1. WG FM endorsed the proposal of FM44 to create a new work item for the revision of ECC/DEC/(05)11 on Ku-Band AES (Aircraft Earth Stations) mainly to update the background section information on Ku-Band AES, clarifying the need for implementation information, and possible deletion of annex A (notification needs for administrations) and updating of annex D (List of RAS sites). This will be proposed to the next ECC meeting.

**4.2.6 Next generation of Iridium constellation**

1. Dr Talayeh Hezareh, representing CRAF, presented document FM(14)091 regarding the report from CRAF-Iridium bilateral discussions to the questions raised during the WG FM meeting in September 2013.
2. CRAF-Iridium had met twice during this period. CRAF provided scenarios and Iridium provided simulation algorithms to elaborate the Iridium OoB emissions simulations. The results were discussed and agreed by CRAF and Iridium. They identified three configurations of satellite traffic capacity and bandwidth usage. Two of them satisfy the RAS protection criteria (4.5 MHz and 6.5 MHz bandwidth usage) as reflected in ECC/DEC/(09)02. The third one (full bandwidth: 8.5 MHz) representing peak traffic that can reach up to 350% of the daily average is not compliant with the RAS protection criteria during RAS measurements.
3. Dr Hezareh then presented document FM(14)088 regarding the CRAF conclusions of the CRAF-Iridium meetings. CRAF requested that Iridium operates only in the RAS protection mode that fulfils the RAS protection criteria (i.e. 4.5 and 6.5 MHz mode) in compliance with the amended decision ECC/DEC/(09)02. CRAF therefore requested that administrations should only authorise operation of mobile earth stations under the control of Iridium if the Iridium NEXT satellites will be operated in RASP mode with a bandwidth of 4.5 MHz or 6.5 MHz over Europe at all times.
4. Mr Michael Thompson, representing Iridium, presented document FM(14)094 regarding Iridium views on results of the CRAF-Iridium meetings. Iridium proposed to continue the discussion with radio astronomers in order to make progress on the working of the notification process, including the lead time.
5. The Czech Republic expressed the view that this subject regarding CRAF and Iridium should be treated as interference between radio services and not as a CRAF/Iridium issue.
6. Luxembourg expressed the view that the ITU Radio Regulations (RR) define the protection of the RAS regarding harmful Interference and the definition in the RR would explicitly mean that it could only occur during RAS measurements. Luxembourg was also of the view that discussions between Iridium and CRAF should continue. CRAF replied that harmful interference corresponds to a data loss of more than 2% as defined in Recommendation ITU-R RA.1513.
7. The United Kingdom clarified that the situation on UK radio telescopes claimed by Iridium is not relevant and that all the mentioned facilities are in use at 1612 MHz in the United Kingdom.
8. Sweden supported the WG FM Chairman‘s position that administrations have to protect the RAS according to the RR and the need for finding a way to apply them. Therefore, Sweden encouraged CRAF and Iridium to continue in their joint efforts to find a pragmatic and practical way forward in order to use spectrum as efficiently as possible.
9. The Czech Republic shared the concerns of CRAF on the imposition of constraints on national astronomers.
10. CRAF clarified that it only represents radio astronomers and interference issues have to be dealt with on the national level. On the request of Sweden CRAF elaborated on the lead time of observations and confirmed the 10 min lead time in RAS activities.
11. The Czech Republic proposed to discuss again the possibility that the ECC sends a letter to the FCC (notifying administration of Iridium), although this was already discussed at ECC meeting 34, that this type of action is under national responsibility and any administration can decide to send a dedicated letter to FCC. The WG FM Chairman recalled that a CEPT/ECC letter was send to FCC in 2011 but unfortunately there was no FCC response yet. The WG FM Chairman accepted the proposal from CRAF to address the subject concerning CRAF/Iridium during the next FCC/ECC/IC meeting.
12. Mr Weber (ECO) explained that besides the ITU and national level, there is also an EU framework that requires administrations in general to ensure the technical quality of a radio service, safeguard the efficient use of spectrum or to fulfil other objectives of general interest as defined by the country in conformity with EU community law.
13. The meeting decided to provide more time to CRAF and Iridium and recommended that CEPT administrations should also take part at meetings between CRAF and Iridium. WG FM tasked the Chairman of FM44 to coordinate those meetings.

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

**4.3.1 Progress Report**

1. The WG FM Chairman introduced the report of FM48 describing the progress which had been achieved since the last WG FM meeting (doc FM(14)079rev1). FM48 had two physical meetings: FM48 #14 (27-28 March 2014, Brussels) and FM48 #15 (24-25 April 2014, Mainz).
2. The 14th FM48 meeting continued the discussion on 5 possible options for Broadband DA2GC regulation (3 options for the 2 GHz band and 2 options for the 5.8 GHz band), taking into account the ECC #36 decision that WG FM (in particular FM48) should further work on the regulation for Broadband DA2GC on the assumption that the harmonisation will be done by the means of an ECC Decision (or more than one ECC Decision). The 15th FM48 meeting proceeded mainly with the finalisation of Draft ECC Report 214 on Broadband DA2GC based on the comments received during the public consultation.

**4.3.2 Draft ECC Report 214**

1. WG FM noted and supported the FM48 resolutions on the comments received on Draft ECC Report 214 during the public consultation (Annex 2 to FM(14)079rev1).
2. WG FM considered the revised draft ECC Report 214 as provided by FM48 (Annex 1 to FM(14)079rev1).
3. The WG FM Chairman informed the meeting that FM48 had not finally decided on a sentence proposing the development of a specific EC Decision on spectrum harmonisation for Broadband DA2GC systems with an aim to facilitate European wide implementation of these systems.
4. Sweden proposed to delete this sentence arguing that the issue of developing an EC Decision is out of the FM48 mandate. UK, Finland, Czech Republic, The Netherlands, Norway and Estonia supported the Swedish proposal.
5. The Netherlands additionally stated that it would be more appropriate to look for a regulation for one Broadband DA2GC system than trying to find a solution for 3 different systems.
6. Germany, France and the Russian Federation preferred to keep the sentence and asked the position of EC on this issue.
7. The EC Councillor clarified that in any case, by deleting or keeping this sentence, after the submission of the CEPT response on the Mandate on the unpaired 2 GHz bands, all necessary information will be available for appropriate action.
8. WG FM also discussed the new section 5.4 «Typical performance expectations for Broadband DA2GC» of the Draft ECC Report 214.
9. Sweden asked for clarification on the figures provided in the table of performance metrics in order to better understand the logic of the information provided in that section.
10. The WG FM Chairman explained that the sections describing the three different systems should not be changed, because the description should be in line with the ETSI System Reference Documents and no comparison of different technical concepts should be carried out by CEPT. Therefore a new section had been added by FM48.
11. After a slight amendment of new section 5.4, it was supported by WG FM.
12. After some further minor amendments, the draft ECC Report 214 was finally approved by the meeting for publication as in **Annex 07**.

**4.3.3 Future regulation for Broadband DA2GC**

1. WG FM noted the following documents for Broadband DA2GC regulation developed by FM48:

* two working documents for the main body of the regulation: one for frequency bands 1900-1920 MHz / 2010-2025 MHz and another for frequency band 5855-5875 MHz (Annexes 8 and 9 to FM(14)079rev1);
* four different technical Annexes (Annexes 3-6 to FM(14)079rev1):
* for the system according to ETSI TR 103 054, FDD, frequency range: 1900-1910 MHz (FL) and 2010-2020 MHz (RL);
* for the system according to ETSI TR 101 599, TDD, frequency band 5855-5875 MHz;
* for the system according to ETSI TR 101 599, TDD, frequency band 1900-1920 MHz;
* for the system according to ETSI TR 103 108, TDD, frequency bands 1900-1920 MHz and 5855-5875 MHz;
* an Annex for coordination between Broadband DA2GC GS and other fixed radio stations (Annex 7 to FM(14)079rev1).

1. WG FM agreed that these documents should be the basis for the on-going work of FM48.
2. Sweden pointed out that it was assumed for the regulation for Broadband DA2GC that it will be reviewed earlier than usual, e.g. after two years, and that differs from the normal practise of reviewing ECC Decisions every five years.
3. The WG FM Chairman confirmed that this had been discussed by FM48 and the reason for such an approach is given by the fact that out of the five options/systems under consideration most probably only one or two systems will be rolled out at the end. However, it is not possible to forecast which option(s) will be realised. After getting a better knowledge about the system(s) to be rolled out, the unrealised options could be withdrawn from the regulation.
4. WG FM agreed that this approach should be further considered in detail by FM48.
5. Sweden mentioned that it still has the same position as expressed during the last ECC meeting, that it is premature for the development of an ECC Decision for Broadband DA2GC, but Sweden accepted the ECC working assumptions for the on-going work.
6. WG FM noted the FM48 proposals on the draft CEPT Report 52 which had been prepared for the Corresponding Group on the unpaired 2 GHz bands (see section 5.4).
7. Finally WG FM decided to inform ETSI on the progress achieved so far via the liaison statement as in **Annex 08**.
8. WG FM scheduled to adopt the draft BDA2GC regulation(s) for public consultation in February 2015 with the aim to final adopt it by the ECC in June 2015.

**4.3.4 Appointment of a new FM48 Chairman**

1. WG FM had received one nomination and the meeting appointed Mr Alexey Shurakhov (RUS) as a new FM48 Chairman by acclamation. Mr Shurakhov thanked the participants for the support and confidence placed in him.
2. WG FM agreed to extend the activities of FM48 till June 2015 (see amended ToR in **Annex 09**).

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

**4.4.1 Progress Report**

1. Mr Thomas Weber (ECO) presented the FM49 progress report on behalf of the former FM49 Chairman, Mr Peter Buttenschoen, as in doc. FM(14)090r1.
2. WG FM also noted the info document 004 from the RCEG (‘Radio Communication Expert Group’) containing a statement on BB PPDR frequencies in relation to the WRC-15 preparations. WG FM did not consider this document further since this was not under the responsibility of WG FM.

**4.4.2 Draft ECC Report “B”**

1. Mr Weber presented doc. FM(14)090r1 Annex 1, the draft ECC Report ‘B’ on “Harmonised conditions and spectrum bands for the implementation of future European Broadband PPDR systems”. He emphasised that FM49 requested feedback on the “Executive Summary” and the “Roadmap of the transition towards the Broadband PPDR communications in Europe” in the draft ECC Report.
2. Furthermore, Mr Weber explained that the results of the on-going compatibility studies and possible relevant conclusions for the 400 MHz and 700 MHz candidate bands are not reflected in the draft ECC Report yet. The plan still was to proceed with the draft ECC Report for submission to WG FM #82 for adoption to go to public consultation.
3. WG FM concluded on the following guidance to FM49:
   1. The draft executive summary was considered as to be too extensive and the aim should be to shorten it in the final draft ECC Report; by also taking into account that the executive summary should be re-drafted after the main body of the ECC Report can be considered as stable;
   2. The draft ECC Report shall not be distributed to external organisations at this stage;
   3. Administrations are invited to further contribute to the draft ECC Report by considering the full range of technical solutions;
   4. The roadmap in section 2 of the draft ECC Report should also be considered for streamlining / possible simplifications;
   5. The draft ECC Report should also provide clear answers with regard to the expectations about what might happen with the existing PPDR frequencies in the 380-385/390-395 MHz range in the medium/long future;
   6. Indicate in the draft ECC Report that the 4940-4990 MHz frequency range is not the preferred option in ECC/REC/(08)04 on BBDR, as this is the frequency range 5150-5250 MHz.
4. Based on docs. FM(14)071 and FM(14)111 (Section 1), WG FM discussed the view of ECC PT1 on a potential demand for BB PPDR of 2 x 5 MHz (starting at 698 MHz) on a national level. According to ECC PT1 the 2 x 5 MHz for PPDR use was not within the scope of ECC PT1 and therefore no technical studies would be done on this option. The relevant technical conditions for PPDR 2 x 5 MHz (in particular for coexistence with DTT below 694 MHz, i.e. the protection of TV channel 48) had not been added in the draft CEPT Report in response to the 700 MHz Mandate. The preliminary studies and contributions received for the drafting of the relevant technical conditions are listed in the annex of doc. FM(14)071.
5. It was emphasised that ECC PT1 does not intend to conduct further technical studies outside the scope of MFCN and invited WG FM to consider any follow up action.
6. France requested that studies should be conducted in WG SE and that France would provide additional contributions to the ones identified within the ECC PT1 liaison statement to progress the studies. Hence, France would need clarity in order to prepare contributions to WG SE (SE7).
7. Sweden suggested that the ECC should decide whether WG SE (SE7) should be tasked to conduct technical studies since the CEPT Report will be a draft until the final adoption.
8. Germany outlined that there is no decision yet that those 2 x 5 MHz BB PPDR might be an option for a European harmonisation. Furthermore, the reason for the invitation by ECC PT1 to conduct respective studies would be the draft CEPT Report on 700 MHz which would be adopted at the next ECC plenary at the earliest. Also the high workload of SE7 should be considered.
9. WG FM decided that the ECC, when considering the adoption of the CEPT Report for public consultation, should be asked for a decision whether WG SE is tasked to conduct technical studies for BB PPDR 2 x 5 MHz starting at 698 MHz. This may also include discussions in the ECC steering group.
10. WG FM agreed on a Liaison Statement to WG SE (copied to SE7) concerning the target date for work item SE07\_22 regarding BB PPDR systems operating in the frequency bands 410-430 MHz and 450-470 MHz, to ensure that the draft study results are available at the time of WG FM #82 considering the draft ECC Report for approval for public consultation (**Annex 10**).

**4.4.3 Other issues: feasibility study on inter-domain synergies**

1. WG FM discussed doc. FM(14)086, a liaison statement on synergies between civil security, military and commercial domains (inter-domains), draft TR 103 217 – TC RRS. The document contained early information on the feasibility study on inter-domain synergies.
2. WG FM agreed on a liaison statement to ETSI as given in **Annex 11**. WG FM is of the view that findings on the feasibility/synergies between civil domains and the military domain require a priori the involvement of the civil and military frequency management authorities and ETSI should therefore approach NATO and CEPT before an ETSI Technical Report is approved; otherwise the study results would be questionable.
3. WG FM noted in this context also the earlier proliferation of the ETSI SRdoc TR 102 628 on Public Safety and Security (PSS) wireless communication systems in the UHF band that triggered work in ECC regarding BB PPDR. This document already included in the original version a chapter B.4 on cognitive radio and related spectrum management consideration. WG FM has been made aware that the UIC (International Railway Union) has commented on this during the recent ETSI internal coordination led by ERM with regard to the revision of TR 102 628 (RTR/ERM-060) concerning synergies between BB PPDR and other applications such as future railway applications. Furthermore, the European Railway Agency has commissioned a study (in public domain: [Analysys Mason Summary Presentation](http://www.era.europa.eu/Document-Register/Documents/Analysys%20Mason%20summary%20presentation%20for%20ERA.pdf)) that, for example, investigates the option of future railway applications using BB PPDR networks (see also agenda item 4.8.1 below).
4. Therefore WG FM invited ETSI to approach civil and military frequency management authorities early enough and also coordinate better with other stakeholders such as in railway telecommunications. The normal ETSI-ECC collaboration process seems also suited to this purpose and WG FM is looking forward to receiving the revised version of TR 102 628 that may contain information on some inter-domain synergies.

**4.4.4 Appointment of a new FM49 Chairman**

1. WG FM had received one nomination and the meeting appointed Mr Laurent Bodusseau (F) as the new FM49 Chairman by acclamation.

**4.5 FM PT 51 (PMSE)**

**4.5.1 Progress Report**

1. The Chairman of FM 51, Mr Lindsay Cornell (UK), presented the progress report from the 12th meeting of the Project Team (doc. FM(14)093) which was hosted by ANFR in Maisons Alfort, France, on 24th to 25th April 2014. The Project Team has continued to tackle the work on PMSE according to the agreed Terms of Reference.
2. FM51 has completed its work on a new draft report on digital video links for PMSE to provide updated parameters for sharing and compatibility studies compared to ERC Report 38. The work was done largely by correspondence and web meetings. This report is designed to support the on-going studies in SE7 on potential additional bands for video PMSE.
3. The FM51 Chairman explained that the information on contact points for PMSE on the ECO website has been updated to include additional administrations (document FM(14)93 Annex 2). All remaining administrations are urged to provide the missing information to ECO to complete the database (contact: [bruno.espinosa@eco.cept.org](mailto:bruno.espinosa@eco.cept.org)).

**4.5.2 Spectrum for PMSE**

1. The new draft ECC Report on Characteristics of PMSE digital video links for sharing and compatibility studies (FM(14)93 Annex 1) was presented by the Chairman of FM51.
2. WG FM approved the draft ECC Report 219 for public consultation (**Annex 12**).

**4.5.3 Update of ERC/REC 25-10**

1. The FM51 Chairman informed WG FM that work will continue on this topic when the results of the studies underway by WG SE (SE7) have been completed.
2. The WG FM Chairman introduced a liaison statement from WG SE (document FM(14)098) describing progress with studies on video PMSE and a request for participation from PMSE experts. WG FM noted that the Chairman of FM51 has encouraged members of FM51 to assist with the work of SE7.

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

**4.6.1 Progress Report**

1. The Chairman of FM52, Mr Bruno Espinosa (ECO), presented the progress report of FM52 (document FM(14)076). He informed the meeting that FM52 had considered the comments received during the public consultation on draft ECC/DEC/(14)BB and on draft ECC/REC/(14)04 and had developed revisions for both draft ECC deliverables.
2. FM52 had also developed the draft CEPT Report 55 (‘Report A’) in response to Task 1 of the EC Mandate to CEPT on the 2.3-2.4 GHz band (see agenda item 6.2 below).

**4.6.2 Draft ECC Decision (14)BB on 2300-2400 MHz**

1. FM52 considered the responses submitted during the public consultation on draft ECC Decision(14)BB (as available in FM(14)065Rev1) and addressed all the comments. It was emphasised that FM52 had to focus on two specific issues, namely the compatibility between MFCN and other uses of the band 2.3-2.4 GHz, in particular PMSE, and the adjacent band compatibility between MFCN and systems above 2.4 GHz, in particular WLAN. On the second point, WG FM noted the liaison statement from FM52 to WG SE and considered the reply from WG SE in document FM(14)103.
2. WG FM considered the revised draft ECC Decision(14)BB proposed by FM52 (Annex 2 of document FM(14)076) with the additional clarification submitted by WG SE on the Block-Edge Masks.
3. Based on their response to the public consultation, the Netherlands proposed to reflect in the considerings the separation distances calculated in ECC Report 172 for the protection of airborne video links and to reduce the in-block power of MFCN base stations. The first point was addressed with a new sentence in the Annex 3 of the draft ECC Decision stating the potential need for large separation distances in the case of airborne PMSE and the second proposal was not supported.
4. With a few additional modifications improving the text, WG FM endorsed the revised draft ECC Decision(14)BB (**Annex 13**). It is submitted to the ECC for approval for publication.
5. The Slovak Republic stated that, because of the current use of the band in its country, it does not intend to introduce new applications.
6. As proposed by FM52, WG FM also approved a liaison statement (**Annex 14**) to inform ETSI ERM about the underlying assumptions on the coexistence between MFCN and WLAN around 2.4 GHz regarding WLAN blocking level, which may require action on EN 300 328.
7. The meeting noted the information provided in document FM(14)114 by ITU-T (JCA-AHF) on the use of the 2.4 GHz band by Assistive Listening Devices (a revised version of this contribution was provided after the WG FM meeting). The FM52 Chairman stated that two comments had been provided on this topic during the public consultation and that the newly proposed BEM for MFCN is expected to improve the coexistence.

*Statement from Switzerland:*

*BAKOM / OFCOM Switzerland stated that this Decision will not be implemented in Switzerland because the band 2300-2400 MHz is predominantly used by PMSE applications (wireless camera) and by military aeronautical telemetry.*

*Statement from Austria:*

*Austria has no objections against text both of drafts (ECC/REC/(14)04 and ECC/DEC/(14)BB), but is currently not in the position to implement it. The band 2300-2400 MHz is predominantly used by PMSE applications (wireless camera) and by military aeronautical telemetry.*

**4.6.3 Draft ECC Recommendation (14)04 on 2300-2400 MHz**

1. FM52 considered the responses submitted during the public consultation on draft ECC Recommendation(14)04 (as available in FM(14)066) and addressed all the comments.
2. WG FM considered the revised draft ECC/REC/(14)04 developed by FM52 (Annex 3 of document FM(14)076). The FM52 Chairman emphasised that one of the proposed changes (reference to Resolution 55 (WRC-12) replaced with a reference to Resolution 906 (WRC 12)) may need to be implemented in other ECC Recommendations dealing with cross-border coordination.
3. WG FM agreed that the proposed recommends-11 about the review of the Recommendation was not required due to the general review process in place and thus, it was deleted. With this change, WG FM approved the ECC Recommendation(14)04 for publication (**Annex 15**).

*Statement from the Slovak Republic:*

*Administration of the Slovak Republic has no objections against text of both drafts (ECC/DEC/(14)BB and ECC/REC/(14)04). Please, accept our comment that in the Slovak Republic the frequency band 2300-2400 MHz is used for SAP/SAB, ENG/OB (wireless cameras) and for defence unmanned aircraft systems (military). For stated reasons the Slovak Republicdoes not intend, in the frequency band 2300-2400 MHz, to introduce new other services (as well as) fixed / mobile communication networks (MFCN) including broadband wireless systems (BWS).*

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

**4.7.1 Progress Report**

1. The Chairman of FM53, Mr Emmanuel Faussurier (F), presented the progress report of FM53 (document FM(14)113). FM53 held one web-meeting which focused on the TV WSD issue on 3 April 2014.
2. The FM53 Chairman recalled the key operational requirement for WSD resulting from SE43 investigations which is that a White Space Device (WSD) may only transmit in the territory of a country if it has successfully been enabled by a geo-location database approved by the NRA. He underlined the assumption of a “general authorisation” regime for operation of WSD and the discussion based on input from Ofcom (UK) relating to the functions of a White Space Data Base (WSDB). The following models are envisaged to operate a TV WSD database:

* Model 1 – the NRA is the WSDB (the NRA itself performs the database tasks),
* Model 2 – the NRA outsources the WSDB function (the NRA subcontracts, and pays for, the services carried out by the database),
* Model 3 – commercial WSDB provider(s) (the NRA allows for commercial databases, whose revenues come from charging the end users but not the NRA).

1. A draft ECC Report on “Overall regulatory framework for TV WSD using geolocation database and guidance for national implementation” (working document) is under discussion in FM53.
2. An ITU-R SG1 / WP 1B seminar with regard to the spectrum management issues related to the use of “White spaces” (WS) by CRS, which took place in Geneva on 20 January 2014, actually offered an opportunity to present CEPT related activities.
3. WG FM noted the report from the Chairman of FM53

**4.7.2 CRS**

1. The Chairman of WG FM introduced document FM(14)070, containing a Liaison Statement from ETSI on TV White Space activities in ETSI TC RRS. ETSI would like to invite WG FM to consider on-going standardisation relating to Geo-location Databases. Furthermore, ETSI understands that WG FM is “open to further discussions on” the “precise format and contents” of the “concept of the weblisting” and would welcome any suggestions on required standardisation work in order to support the corresponding mechanisms, including in particular the definition of required parameters and the related interface definitions.
2. WG FM invited FM53 to consider the liaison from ETSI and provide appropriate guidance.

**4.8 FM PT 54 (PMR, PAMR, GSM-R)**

1. WG FM established FM54 during its latest meeting in February, but did not appoint a Chairman for this Project Team. Therefore the Correspondence Group proceeded with the work related to the draft ECC Report on GSM-R. The CG had one physical meeting since the last WG FM meeting.

**4.8.1 Progress Report of the CG on GSM-R**

1. The progress report of the Correspondence Group on GSM-R was introduced by the WG FM Chairman.
2. The meeting noted the Analysys Mason summary presentation to ERA as provided in Info document 007. This information may also be relevant for the future activities of FM54 and possibly FM49.

**4.8.2 Draft ECC Report**

1. The WG FM Chairman introduced the latest version of the draft ECC Report on GSM-R. The meeting endorsed this working document in general.

**4.8.3 ECC DEC (02)05**

1. The WG FM Chairman introduced a liaison statement from ETSI in which ETSI had proposed an amendment of ECC Decision (02)05 on GSM-R. Because a similar proposal had already been discussed before and had been rejected, it was not supported by the meeting. A review of the ECC Decision could be carried out after the finalisation of the work on the ECC Report. ETSI was informed about this conclusion with a liaison statement (**Annex 16**).

**4.8.4 Appointment of a FM54 Chairman**

1. No administration had nominated a candidate for FM54 which had been established during the last WG FM meeting in February. Also during the current WG FM meeting there was no indication for a nomination.
2. The meeting agreed that the work regarding the draft ECC Report on GSM-R should go on, because the results are also relevant for activities outside CEPT (European Commission, ERA, UIC, ETSI etc.). Therefore a solution for the chairmanship must be found.
3. Various options were discussed by the meeting. E.g. the possibility of merging FM49 and FM54, which could provide some advantages because of synergies between PPDR, PMR and railway applications. Finally the French administration provided support and volunteered to provide an acting Chairman for FM54, Mr Laurent Bodusseau (ANFR). The WG FM Chairman thanked Mr Bodusseau for providing this support for the Project Team.
4. The Correspondence Group on GSM-R was closed.
5. Administrations are invited to consider a nomination of a candidate for FM54 until the next WG FM meeting in October.
6. FM54 meetings between now and the WG FM meeting in October 2014 will be scheduled by the acting PT Chairman, the meeting dates will be made available on the ECO website. Most likely a first meeting will be held in June.
7. WG FM also tasked FM54 with the assessment of the responses received on the PMR/PAMR Questionnaire (400 MHz), see agenda item 5.7 below.

**4.9 Short Ranges Devices / Maintenance Group**

**4.9.1 Progress Report**

1. Mr Thomas Weber (ECO) presented the progress report of SRD/MG as in document FM(14)081. WG FM endorsed the actions of the SRD/MG on the items as reported below.

**4.9.2 ECC/ERC Decisions**

**4.9.2.1 ECC/DEC(05)12 on PMR 446**

1. WG FM discussed a concept for amending ECC/DEC/(05)12 on Digital PMR 446, as proposed by the SRD/MG. It has already been foreseen that a revision might be envisaged in 2014/2015 after new ETSI specifications (as was requested by WG FM), which make analogue PMR446 equipment more robust against digital interference, have become available.
2. WG FM noted that new ETSI specifications for Continuous Tone Controlled Signalling System (CTCSS) and Digitally Coded Squelch Signalling (DCSS) system have been created in ERM TG DMR and approved for publication by ETSI ERM.
3. The concept foresees to use in the medium future the whole frequency range 446.0-446.2 MHz for analogue as well as digital PMR446 equipment (no split in analogue and digital frequency ranges anymore), only one ECC Decision, i.e. an amended ECC/DEC/(05)12, and the creation of a specific harmonised standard for PMR446 including required technologies for more robust analogue receivers. Repeater and base station use is proposed to be banned from the PMR446 frequencies to keep the nature of the application as peer-to-peer application.
4. The concept is set out in detail in doc. FM(14)081 Annex 13 and was endorsed by WG FM. WG FM is requesting in the next step feedback about this concept from the PMR446 community that is organised in ERM TG DMR, to be provided to WG FM and the SRD/MG.
5. WG FM agreed a liaison statement to ETSI TC ERM and ERM TG DMR requesting feedback as in **Annex 17**.

**4.9.2.2 ECC/DEC/(08)01 and ECC/REC/(08)01 on ITS**

1. SRD/MG developed a first draft revised ECC/DEC/(08)01 on 5.9 GHz ITS (working document, see Annex 9 of FM(14)081). This first working draft considers the crucial elements from the ETSI SRdoc TR 103 083 with regard to how this could possibly be reflected in an amended ECC/DEC/(08)01 (and also in ECC/REC/(08)01). A liaison statement to ETSI TC ERM (cc ETSI TC ITS and ERM TG37) on 5.9 GHz ITS was developed by SRD/MG and agreed by WG FM as in **Annex 18**.
2. This liaison statement does reflect the schedule for the revision of the ECC deliverables ECC/DEC/(08)01 and ECC/REC/(08)01 by October 2014. It also explains the relation between the ECC deliverables and ETSI standards and specifications with regard to passive and active mitigation techniques as well as duty cycle restrictions for the improved coexistence between ITS on one hand and road tolling applications and FS on the other. It was noted that ETSI is already working on revisions for the applicable deliverables. It is crucial for the revision of the ECC deliverables that the activities in ETSI and ECC WG FM are coordinated.
3. Mr Weber explained that the elements of the revision also include an additional ITS station role in the regulation in order to complement the already existing roles (as mobile, infrastructure ITS and portable ITS stations). These ITS stations will be handled under the same ETSI harmonised standard EN 302 571 as well as the update of the spectrum mask in order to allow for technical implementation of ITS stations by taking into account the fixed 10 MHz ITS channel bandwidth. This may allow a clarification of the spurious emission limits and doc. FM(14)100 was noted by WG FM confirming that a work item in SE24 has been agreed in WG SE as requested by WG FM.
4. Furthermore, based on the assumption of additional existing mitigation factors (duty cycle restrictions of the ITS systems) in the ETSI standards, a relaxation of the out-of-band emission limits may be considered.
5. The ITS community is working together with the TTT community to solve the potential interference issues based on passive and active mitigation techniques described in ETSI TS 102 792, i.e. coexistence specifications are available. SRD/MG preliminarily agreed that these coexistence specifications should be referred to in the amended ECC deliverables and this is reflected in the liaison statement agreed by WG FM.
6. Cooperative ITS systems based on the ETSI ITS standards will be deployed from 2015 onwards in vehicles with initial infrastructure installation which will appear in the course of 2014. Major car manufacturers recently signed a Memorandum of Understanding to signal their intentions to provide cooperative systems from 2015 on. This was also confirmed by the presentation from ACEA (see agenda item 5.6)
7. SRD/MG also agreed on a web-meeting dealing with ITS before the next ordinary SRD/MG #62 meeting.

**4.9.3 Status of ERC REC 70- 03**

1. WG FM noted doc. FM(14)057 from ETSI ERM, a response liaison statement on new additional work and standardisation issues in relation to the new UHF frequency entries in ERC Recommendation 70-03. The SRD/MG Chairman confirmed that work in SE24 on these issues is now underway and the items mentioned in the response liaison statements are all coordinated.
2. Mr Weber further explained that SRD/MG considered the raised item about the duty cycle, i.e. the cumulative transmitter on time of a device over a long term observation interval, typically is one hour as currently in ERC/REC 70-03 and in ETSI Standards too; immediate duty cycles can describe the behaviour of an SRD device for a single or a small number of transmissions. Each transmission is limited in maximum duration (Tx-On-Max) and is followed by a minimum interval of silence by the transmitting device (Tx-Off-Min). Additional refinements include brief gaps (T-disregard) in a sequence of transmissions which may be ignored provided other limits are respected. Also brief gaps (T-disregard) could be defined. The liaison statement concludes that duty cycle is suitably determined from the CEPT sharing studies and published by CEPT as part of the recommended regulation parameters. SRD/MG concluded that values of immediate duty cycle Tx-On-Max/Tx-Off-Min need to be determined by ETSI for each individual standard since they depend on the application’s characteristics of the transmissions and are covered by the related standard.
3. WG FM also noted a second response liaison statement in doc. FM(14)109 confirming that a new work item has been approved by TC ERM #52 which will update the spectrum masks in EN   300 422 in line with the WG FM request and with ERC/Rec 70-03 Annex 10.

**4.9.4 EC related activities**

1. WG FM agreed the proposal from SRD/MG to send out the response to the request from RSC on the draft guidance letter (doc. Info 006) for the 6th update of the EC Decision for SRDs as in **Annex 19**. The proposal to the EC foresees to keep all four items in the final guidance letter, i.e. these four items should be investigated during the 6th update cycle and addressed in the CEPT response. To adequately address all four items in the guidance letter, it is proposed to extend the schedule/roadmap of the 6th update cycle: March 2016; CEPT to submit the report (subject to public consultation).

**4.9.5 ITU-R Contributions**

1. WG FM agreed on a CEPT contribution for the ITU Handbook on “National spectrum management” regarding the principles on SRD spectrum management. The CEPT contribution needs to be delivered to WP1B in June 2014. The agreed CEPT contribution is in **Annex 20** and was provided in time to the ITU-R WP 1B by the French administration. Changes were made during the WG FM meeting with regard to adding references and amendments in the text as requested by the Russian Federation and Germany.
2. The SRD/MG Chairman informed that, based on the CEPT initiative previously reported, it was agreed in ITU-R that ITU-R SG 1 conducts a Workshop on 3 June 2014 in Geneva on SRD and UWB global/regional SRD harmonisation possibilities and that more than 120 participants were already registered for this event. The ITU-R SG 1 Counsellor and the SRD/MG Chairman were tasked to commonly organise the workshop at the recent ITU-R WP 1B meeting in January 2014.

**4.9.6 Adjacent band coexistence of SRDs**

1. Mr Weber informed WG FM that SRD/MG postponed a decision on the proposal to create an ECC Recommendation on SRD receiver performance guidance (following the results set out in ECC Report 207). Although there was some support for such a new deliverable in SRD/MG (notably France and Sweden expressed support), it was decided to wait with a decision since the discussions in many fora concerning this subject are still at an early stage. SRD/MG will come back on this issue during the next meeting.
2. In the light of the Radio Equipment Directive (RED) and the outcome of the work on interference management in RSPG Sweden highlighted the importance of such a Recommendation, which from Sweden point of view, would support efficient use of spectrum as far as possible.

**4.9.7 Radars within 76-77/79 GHz**

1. Mr Weber informed that the draft ECC Report, with the results of the compatibility investigations in SE24 of the helicopter radar application operating in the frequency bands in 76-79 GHz, was adopted by WG FM for public consultation. Preliminary results were already discussed in the last SRD/MG meeting. The lack of definitions concerning differentiating between rescue missions/non-rescue missions and the coexistence with the radio astronomy were a concern expressed in SRD/MG but meanwhile text about this differentiation was deleted in the draft ECC Report. The SRD/MG Chairman was tasked to consult/mediate until the next SRD/MG meeting with the stakeholders to find out possible solutions for a regulatory approach.
2. In addition, Mr Weber reported that SRD/MG decided to review and consolidate the radar application terminology in the traffic and transport telematics field by August 2014 (consolidate to a lower number of terms, in line with the vocabulary used in ITU). This follows the earlier requests made in EFIS/MG and at WG FM #79.
3. WG FM also noted the liaison statement sent by SRD/MG to SE24 clarifying the request for studies. In addition, WG SE decided to expand the studies to include the full picture to also conduct studies between TTT applications and allocated radio services in the 76-77 MHz range.
4. Mr Weber explained that the current regulations include ground based radar applications as well as fixed radar applications within the envelope of the technical parameters set out in ERC/REC 70-03 and the EC Decision for SRDs and that the assessment in CEPT Report 44 only required to clarify the coexistence conditions between the existing radar applications to ensure that automotive radars will also in future find a suitable spectrum environment in order to contribute to increased road safety.

**4.9.8 Wireless Industrial Applications**

1. The SRD/MG Chairman reported that the liaison statement from ETSI concerning WIA (FM(14)061) was discussed in the recent SRD/MG meeting. SRD/MG still plans to finalise the regulatory approach for WIA applications in Annex 2 of Rec. 70-03 in the December 2014 meeting and based on the outline endorsed by WG FM #79. This schedule is in line with the creation of a harmonised standard for WIA applications in ETSI TC ERM / ERM TG41. It is estimated that the creation of the standard will need some time due to several mitigation techniques to be covered in the harmonised standard. Therefore, no problems are seen by SRD/MG with this schedule to work in parallel in ETSI TC ERM / ERM TG41 and WG FM / SRD/MG.

**4.9.9 SRDs in UHF**

1. WG FM noted the progress report of the SRD/MG, the liaison statement sent by SRD/MG to SE24 as well as the results of the discussions of the joint SRD/MG / SE24 meeting in August 2014. The results are also confirmed in doc. FM(14)101 by WG SE concerning the content and schedule for the studies in SE24.
2. Mr Weber outlined that SRD/MG already confirmed that the foreseen schedule of the investigations to have a draft ECC Report available for submission to WG SE for public consultation approval by September 2015 is seen as appropriate for this work.
3. In addition, SRD/MG will discuss during the next meeting an additional option for network relay points in the frequency band 870-875.8 MHz using listen-before transmit / frequency adaptation (Note 1 in Annex 2 of ERC Rec. 70-03).

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

1. An SRD/MG internal questionnaire was developed concerning the use of the 174-216 MHz band identified in ERC Rec. 70-03, Annex ‘10d’, for Assistive Listing Devices (ALD) in VHF. The aim of the SRD/MG questionnaire to administrations is to find more precise implementation information about ALD usage opportunities in the VHF band. In the joint session with SE24 in August 2014, it was agreed to transfer the draft report created in SE24 to SRD/MG. SRD/MG is going to collect more precise information before deciding whether additional investigations in SE24 should be undertaken. See the questionnaire in the SRD/MG progress report to WG FM in FM(14)081 (Annex 5). Administrations in WG FM are also kindly requested to provide information and may be contacted by the SRD/MG Chairman, if not represented in SRD/MG and having an implementation for ALDs in the VHF range.

**4.9.11 Cochlear Implant Systems (LP-CIS) in 2.5 GHz**

1. Based on the information from ETSI and WG SE, WG FM agreed to the proposal of the SRD/MG to close the SRD/MG work item on LP-CIS. The proponents did not see a chance to continue this work due to unwanted emissions from mobile services above 2500 MHz into this kind of audio application. WG FM noted that the corresponding work item in WG SE was also closed.

**4.9.12 Review 5805-5815 MHz**

1. WG FM noted that SRD/MG is waiting for the study results in WG SE / SE24. The compatibility studies between TTT/DSRC systems and radio services operating within 5.805-5.815 GHz (SE24\_49) are aimed at clarifying limits and operational conditions for TTT/DSRC in this frequency band.

**4.9.13 ALD/TRS further harmonisation possibilities**

1. WG FM agreed to the proposal from SRD/MG to request WG SE to initiate spectrum sharing studies in the frequency range 1656.5-1660 MHz for Telecoil Replacement Systems (TRS) using the information from documents SRD/MG(14)028rev1 (deployment information) and the ETSI TR 102 791 (ETSI systems reference document). WG FM agreed the liaison statement to WG SE as in **Annex 21**.
2. The SRD/MG Chairman outlined that a sufficient number of administrations supported this proposed work in SRD/MG. Following detailed discussions, the frequency range 1656.5-1660 MHz had been identified as a candidate band, providing the potential for global harmonisation, e.g. for TRS systems deployed inside of airports, railway stations or inside public buildings.
3. Key parameters are: fixed installations, 10 mW e.i.r.p max., downtilt aerials, coverage typically up to 20 m around the base transmitter. Demand for max. 6 x max. 600 kHz non-contiguous channels (optimal audio quality), 200 kHz are also possible implementations, indoor restricted.
4. ITU-R allocation status is for all 3 ITU Regions the same for this frequency range and the range 1656.5-1660 MHz is outside of the GMDSS and aeronautical mobile use as can be seen from the footnotes.
5. The main concern of the proposed studies will be to find out the deployment densities and restrictions possible for TRS to not cause undue aggregated interference into MSS satellite receiver front ends.
6. WG FM noted the input document from ITU-R WP5A (doc. FM(14)116) concerning a new question on VHF and UHF public access systems supporting hearing aid systems and tasked the SRD/MG to consider the document and to provide feedback on how this fits to the activities in WG FM / SRD/MG on ALDs/TRS.

**4.9.14 Regulation on LAES and LT2**

1. Mr Weber reported that based on the request from ETSI in the liaison statement, doc. FM(14)056, the SRD/MG agreed to an SRD/MG internal questionnaire to administrations investigating the implementation status and usage opportunities for LAES (Location Tracking Applications for Emergency Services) and LT2 (Location Tracking Type 2) applications as set out in the two ECC Recommendations (11)09 and (11)10 for the LAES and LT2 applications (see Annex 11 of the SRD/MG progress report in FM(14)081).
2. Mr Weber further explained that the current implementation of both ECC Recommendations is practically zero. Therefore, SRD/MG intends to review the situation after the collection of information by means of the internal questionnaire.
3. Furthermore, Mr Weber explained that SRD/MG had discussed during the last meeting that most LT2 installations would be big installations for which an individual licensing approach would not be a problem for the market participants. On LAES, it was noted that the requirements for coordination are much less (only training sites).
4. Based on the results of the SRD/MG internal questionnaire, SRD/MG may propose in the future to WG FM how the two ECC Recommendations may be amended. The possibility of a review was already set out in CEPT Report 45.
5. France indicated that it is currently reviewing the impact of LAES on radio services and investigating the implementation of the LAES regulation for use by adequate governmental bodies. France considers that there is no issue with the “authorisation regime” for governmental usage. LAES is to be understood as an application providing an extension of existing location applications for dedicated personal responding to emergency situations inside building (typically fire-fighters). Specific registration provisions are needed for permanent training sites, which are foreseen only in limited numbers.
6. France expressed concerns relating to the LT2 regulation which provides basically an extension of the generic UWB regulation allowing fixed outdoor installations for location-tracking applications. Industry stakeholders have not expressed any demand for this application in France. The concern remains that LT2 could potentially be deployed in various contexts (industry, office, logistic platforms, etc.) and that such deployment could challenge the objective of minimizing UWB outdoor use. Proposed registration and coordination procedure provided in ECC Report 167 may simply be impracticable and raises concerns about the handling of future deployment of primary stations in the vicinity of an existing LT2 site.
7. Germany concurred with the view expressed by France.

**4.10 ECC PT1 (MFCN)**

**4.10.1 Progress Report**

1. ECC PT1 had submitted a progress report to WG FM which provided an overview of the ECC PT1 activities on issues which are relevant for WG FM (FM(14)111). This report was introduced by the WG FM Chairman.
2. ECC PT1 had invited WG FM to consider its liaison statement on ”Technical conditions for the potential usage of PPDR 2 x 5 MHz in addition to 2 x 30 MHz MFCN in the 700 MHz band”. This issue was considered under agenda item 4.4.2 (FM49).
3. The meeting noted the progress which had been achieved within ECC PT1.
4. Hungary informed the meeting that an input to ECC PT1 had been considered on the needs to include 410-430 MHz and 450-470 MHz bands in a draft ECC Recommendation on frequency cross-border coordination for MFCN covering various mobile bands. However, ECC PT1 was not able to respond to this proposal because there is no ECC harmonisation of the frequency bands 410-430 MHz and 450-470 MHz for MFCN within CEPT. ECC PT1 had agreed that this issue will be reported to WG FM.
5. Hungary emphasised that the implementation of Broadband MFCN is under consideration in Hungary and therefore it would be suitable to also cover the 400 MHz bands in the new ECC Recommendation on cross-border coordination. It was also mentioned during the discussion that, from a technology point of view, this seems to be appropriate, because LTE could be implemented in the 400 MHz bands (also for PMR/PAMR or BB PPDR) and there is already an IMT identification in Article 5 of the ITU Radio Regulations for the 450 MHz band. On the other hand, the 400 MHz bands are not harmonised within CEPT for MFCN.
6. WG FM will report on that issue to the ECC. If BB systems are implemented in a country, then a cross-border coordination issue between BB systems in one country and narrow or wideband systems in a neighbouring country is very likely. Therefore a regulation related to these coordination issues seems to be appropriate.
7. For coordination matters, the 400 MHz bands are currently covered by ERC Recommendation T/R 25-08 which encompasses land mobile services in the frequency range 29.7-960 MHz. However, this Recommendation addresses mainly narrowband systems and, to some extent, also wideband systems.

**4.10.2 Revision of ERC/ECC Decisions**

1. The review of ERC/ECC Decisions and Recommendations which are under the responsibility of ECC PT1 was discussed under agenda item 5.3.

**4.11 EFIS Maintenance Group**

**4.11.1 Progress Report**

1. Mr. Thomas Weber (ECO) presented the EFIS/MG progress report as in doc. FM(14)085 and Annex 1.
2. He outlined that EFIS/MG progressed on EFIS related work such as ERC/REC 70-03 in EFIS, electronic questionnaire data presentation in EFIS, new EFIS web interface, rights of use in the ECS bands in EFIS (ECO Report 03), fixed service (FS) Information in EFIS (a response liaison statement was sent by EFIS/MG to SE19 containing an amended proposal), guidance on RIS models and graphical visualisations in EFIS.
3. Regarding FS related information in EFIS (frequency bands, channel arrangements and implementation information), Mr Weber explained that this is to become a similar solution to ERC/REC 70-03 which is now live in EFIS. The final specifications for FS related information had been agreed by SE19 and WG SE in May 2014, i.e. ECO will work on the implementation of this in EFIS during summer 2014. The aim is to improve the FS related information in EFIS with a limited effort needed from the administrations.

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

1. No proposals for change during WG FM #80.

**4.11.3 RIS Models**

1. No change proposals during WG FM #80. The RIS models adopted at WG FM #79 had been uploaded in EFIS.

**4.11.4 EFIS Presentation**

1. The meeting was provided with an EFIS presentation as in doc. FM(14)084.
2. Mr Weber (ECO) provided WG FM with a live demonstration of the new EFIS functions.

**4.11.5 Appointment of a new EFIS MG Chairman**

1. WG FM appointed Mr Stefan Mayer-Bidmon from BNetzA Germany by acclamation, following the suggestion from the EFIS/MG.

**4.12 Forum Groups**

**4.12.1 Maritime Forum Group**

1. The Chairman noted the convention that the Maritime Forum Group would only report to WG-FM in a period of approximately one year to 18 months, and that no progress report (from the FM Maritime FG) was due for this meeting of WG FM.
2. Mr Weber (ECO) noted that the current work programme of the FM Maritime FG listed a number of work items (WIs) for the Maritime Forum Group, some of them with a target date in 2014. Whilst ECO stated that it was normal practise to extend the date where a target date is not likely to be met, it was not clear whether all the WIs were still required.
3. The Chairman acknowledged this point and reflected that there did indeed appear to be a large number of WIs related to the FM Maritime FG. He encouraged the FM Maritime FG to review the current list of WIs, under their responsibility, and liaise with the ECO accordingly.

**4.12.2 Radio Amateur Forum Group**

1. Mr Weber (ECO) presented the progress report of the Radio Amateur Forum Group, FM(14)108, on behalf of the current Chairman Mr Alexander Gulyaev (ECO). The meeting was invited to approve for public consultation the draft new ECC Recommendation (14)05, on “Amateur Radio Licence Examinations for Persons with Disabilities” (see Annex to doc FM(14)075). The draft new ECC Recommendation (14)05 was approved for public consultation and is attached as **Annex 22**.
2. ECO then invited the meeting to accept Japan, as a first step, with its national first class radio amateur operator licence into ERC Recommendation T/R 61-02 (Annex 1 doc FM(14)108) and, as a consequence, to approve for public consultation this draft revised ERC Recommendation (Annex 2 doc FM(14)108). ECO noted that where an official application for inclusion from a non-CEPT country is submitted, a public consultation is required. This draft revision was approved for public consultation and is attached as **Annex 23**.
3. ECO noted that it, in recent past, had contact with Industry Canada (IC) on the issue of re-establishment of the equivalence between Canada and CEPT in T/R 61-01. A few exchanges between IC and ECO took place within the period in question and this resulted in identifying possible new entries for Canada, in line with its current radio amateur legislation, in Annex 4 of T/R 61-01. The next step in this process will be a discussion in the RAFG Forum of the preliminary agreed between ECO and IC new entries for Canada in T/R 61-01. WG FM will be informed of the result of this discussion and requested to re-establish the equivalence between the CEPT licence and the appropriate national Canadian licence in due course.
4. Some years ago CEPT and CITEL developed a draft Memorandum of Understanding on the mutual recognition of radio amateur licences granted under the respective frameworks of the two organisations (T/R 61-01 in CEPT and IARP in CITEL). Since then ECO (formerly ERO) has been keeping a dialog with CITEL on behalf of CEPT. Details of the recent dialogue are outlined in the RAFG progress report.

**4.12.2.1 Appointment of a new RA FG Chair**

1. ECO noted that current RA FG Chairman, Mr Alexander Gulyaev (ECO), is at the end of his term in the Office and will be leaving ECO on 31 July 2014. It was noted that this announcement was at a relatively short notice and administrations were invited to provide candidates for this position. As no candidates were nominated during this meeting, WG FM appointed Mr Thomas Weber (ECO) as RAFG acting Chairman until the next meeting.

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

**5.1 Civil-Military meeting**

1. The recommendations of the last Civil-Military meeting in Dublin (November 2013), to be taken into account in WG FM’s activity, were presented in the previous WG FM meeting (Budapest, 3-7 February 2014) and are available in document Civ-Mil(13)18.
2. The Chairman of WG FM invited views on any issues related to future Civil-Military meetings. At this time, no comments or suggestions were made.
3. The WG FM Chairman informed the meeting that the date of the next Civil-Military meeting is not yet settled. It was noted that the preparatory process for the next Civil-Military meeting was not yet initiated and that perhaps there is no need to start developing, during the next year, the draft agenda for the forthcoming Civil-Military meeting.

**5.2 Update of the ECA Table**

1. Mr. Thomas Weber (ECO) informed the meeting that ECO in accordance with the procedure for the update of the ERC Report 25 (doc. FM(14)089 and Annex) developed a proposal for updating the ERC Report 25 with factual information (updates of the information on harmonised standards and update references to ECC/ERC Decisions and Recommendations in the ECA Table). He explained the changes to the meeting.
2. WG FM reviewed the proposals from the ECO and adopted the amended ERC Report 25 as in **Annex 24**.
3. WG FM authorised ECO to publish the updated ERC Report 25 after the final approval of the relevant ECC Decisions at the next ECC meeting, taking into account possible changes to these ECC Decisions.
4. Mr Thomas Weber explained that the next update can be foreseen for 2015. Change requests can be made to WG FM by using the action point list in **Annex 25**.
5. France mentioned that the description of the broadcasting-satellite service allocation in the frequency range 1452-1492 MHz should be improved in the next future revision due to the fact that ECC/DEC/(13)02 has withdrawn ECC/DEC/(03)02.

**5.3 General review of ECC/ERC Deliverables**

1. Based on the proposals from ECO in doc. FM(14)107, WG FM updated the list of ERC/ECC Decisions of the regular review process. Mr Thomas Weber (ECO) explained also updates on the related information about standardisation activities in relation to work items in WG FM. The result is in **Annex 26**.
2. In addition, WG FM reviewed the work item list in the ECC PT1 progress report. The aim is to combine the WG FM (**Annex 26**) and the amended ECC PT1 lists (**Annex 27**) into one document for submission to the ECC and to be presented by the WG FM Chairman.

**5.3.1 New ECC decision on withdrawal of ECC/DEC/(02)07**

1. WG FM approved the draft new ECC Decision on the withdrawal of ECC/DEC/(02)07 for submission to the ECC for final approval for publication. The draft new ECC Decision is in **Annex 28**. The office confirmed to have not received any change requests or objections during the public consultation (see doc. FM(14)067).

**5.4 Unpaired 2 GHz bands (EC Mandate)**

1. The Correspondence Group (CG) on the Unpaired 2 GHz bands’ convener, Ms Cristina Reis (POR), presented the progress report of the CG (document FM(14)115).
2. It was reminded that, during the 79th meeting of WG FM, the CG was instructed to proceed with the development of the final CEPT response to the EC Mandate “*To undertake studies on the harmonised technical conditions for the 1900-1920 MHz and 2010-2025 MHz frequency bands (“Unpaired terrestrial 2 GHz bands”) in the EU*” on the basis of the two scenarios agreed in WG FM’s meeting in Budapest (see Annex 31 to document FM(14)054). Therefore, the CG scheduled since then five web-meetings (14/2, 31/3, 29/4, 9/5 and 21/5 2014), in which the CG:

* evaluated the progress of the studies undertaken at CEPT;
* considered, in particular, contributions and results from the Project Teams involved (from WG SE and WG FM) and other interested parties;
* discussed the open issues related to the unpaired 2 GHz bands; and
* concluded the Final Draft CEPT Report in response to the EC Mandate on the “*Unpaired terrestrial 2 GHz bands*”.

1. WG FM was invited to consider the final draft CEPT Report in response to the EC Mandate on the “Unpaired terrestrial 2 GHz bands”, as proposed by the CG (document FM(14)112), with the aim to approve it for submission to ECC #37, 24-27 June 2014.
2. A number of documents, containing elements for the Draft CEPT Report, were as well submitted to the 80th WG FM meeting:

* 079r1 (Sections 4.2 and 6.1), provided by FM PT 48;
* 093 (Section 7 to Annex 3), provided by FM PT 51;
* 081 (Section 13 of the Progress report), provided by SRD/MG;
* 081 (Annex 7 to the progress report), provided by SRD/MG;
* 097, LS from WG SE on 2 GHz unpaired bands;
* 098, LS from WG SE on PMSE video links studies.

As their contents were already taken into account by the CG in the Draft CEPT Report, no additional presentation of those was required.

1. The Final Draft CEPT Report in response to the EC Mandate on “*Unpaired terrestrial 2 GHz bands*”, as in document FM(14)112, was introduced to WG FM. In particular, it was highlighted that:
2. Sections 0 to 3 reflect the contents, slightly updated, of *“The outline of the response to the Commission in respect of the development of a CEPT response to the EC Mandate “To undertake studies on the harmonised technical conditions for the 1 900 – 1 920 MHz and 2 010 – 2 025 MHz frequency bands” ”*,previously agreed (WG FM’s meeting in Budapest);
3. Sections 4 to 9 were based on the structure outlined in document FM(13)171, Annex 35 (78th WG FM meeting); some amendments to that structure were needed to reflect the results of the studies carried out in CEPT, as well as the conclusions that could be derived from those studies.
4. The final draft CEPT Report in response to the EC Mandate on the “*Unpaired terrestrial 2 GHz bands*” (document FM(14)112) was considered in detail by the meeting.
5. WG FM notedthat studies had been carried out with regard to the candidate applications as described in the EC Mandate by considering various scenarios. The results of all these studies are provided in detail in other CEPT deliverables (ECC Report 209 and draft ECC Report 220). The results and conclusions as reflected in the final draft CEPT Report on the “*Unpaired terrestrial 2 GHz bands*” considered only the two scenarios as described in section 5 of the Draft CEPT Report, as a result of the discussions and decisions made at the 79th meeting of WG FM (see document FM(14)054, section 5.5). This was also a result of the responses to the ‘Call for Inputs’ carried out at the end of 2013. Relevant compatibility and sharing aspects were taken into account with regard to these two scenarios, which provided the possibility of spectrum sharing amongst radio applications as required in Task 3 of the EC Mandate. Therefore, it was considered by the CG, and endorsed by WG FM, that there was no need to complete all other studies which were not in line with the two selected scenarios.
6. After introducing the amendments resulting from the views expressed during the debate, WG FM agreed to the text of the final draft CEPT Report 52 as in **Annex 29**.
7. The final CEPT response to the EC Mandate on “*Unpaired terrestrial 2 GHz bands*” is expected to be delivered to the Commission in June 2014 subject to subsequent public consultation, in accordance with the EC Mandate schedule. Therefore, WG FM agreed to submit the final draft CEPT Report to the forthcoming ECC meeting in June 2014.
8. The final Report from CEPT to the Commission, taking into account the outcome of the public consultation, is due in November 2014. The CG was tasked to consider the comments received during the public consultation and revise accordingly the final draft CEPT Report 52, if required. Consequently, an additional meeting or web-meeting of the CG is tentatively scheduled for the 19th of September.
9. Ms Cristina Reis brought to the attention of WG FM a subject that was raised in the CG, namely if CEPT (WG FM or ECC) needs to provide its view / preference with respect to any of the two scenarios considered in the final draft CEPT Report or if any future decision shall be left to the market. It was emphasised that the final draft CEPT Report reflects in detail, on a factual manner, the two scenarios that were agreed in Budapest’s WG FM meeting and the corresponding analysis. The CG considered inappropriate to indicate, in the final draft CEPT Report, any preference with respect to one or the other scenarios detailed in the report and kept its text and conclusions simply factual.
10. It was underlined that the views collected in the CG are rather limited, as the number of participating Administrations is small. As WG FM is attended by a higher number of Administrations, participants were invited to express their views on the matter. After an extensive debate that took place in the Plenary, WG FM concluded that, as a principle, the prioritisation of any applications for a specific frequency band, involving a designation of spectrum, shall not be left to the market but is Administrations’ responsibility. On the other hand, the choice between competing technologies of a same application, encompassing the evaluation of the performance and other parameters, shall be left to the market.
11. Further, it was highlighted that the selection of the mode of operation of Broadband DA2GC (either FDD or TDD) in the bands 1900-1920 MHz and 2010-2025 MHz, which in principle is up to the market, will impact the conditions of operation of the other applications that are, or may in the future, be accommodated in that spectrum.
12. As complementary information, it was referred that a pan-European selection process of a European DA2GC operator might need to be put in place, which, together with the definition of the regulatory framework for DA2GC, might take some time.
13. It was as well mentioned that, as long as no further decisions are taken with respect to the unpaired 2 GHz bands, VLCC may proceed its operation on a national basis in the upper band (2010-2025 MHz), as of today, on a temporary basis. In this respect, France pointed out that the PPDR part of VLCC could not invest in equipment to operate without long term visibility, so only PMSE was in a position to progress.
14. However, it was also noted that VLCC equipment can operate within a wider tuning range including 2010-2025 MHz.
15. As the Draft CEPT Report 52 is expected to be sent to public consultation very soon, the interested parties are encouraged to use that opportunity to further express their views on the subject.

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

1. The Chairman of the CG presented the progress report given in document FM(14)074.
2. Following initiative from WG FM, WG SE / SE19 has started interference and compatibility studies and ETSI has started the preparations of a harmonised standard.
3. The work with MBR is in good progress, but there is still a lot of work to be done. WG FM noted the progress report and tasked the Correspondence Group to continue its work in accordance with the terms of reference given by WG FM #78.

**5.6 RLANs at 5 GHz (EC Mandate)**

1. The Chairman noted that the Correspondence Group (CG) Chairman (Mr Andrew Gowans, UK) was unable to attend due an ITU commitment which clashes with this WG FM meeting. In his absence the Chairman noted that Mr Stephen Talbot (UK) would introduce the progress report of the Correspondence Group activities. He further added that the previous WG FM meeting (#79) had taken the decision to convert the CG into a Project Team. Mr Talbot noted that there had been no activities of the CG (as per doc. FM(14)110) since the previous WG FM Meeting (#79).
2. The Chairman noted that there were 5 contributions (FM(14)073r1, 092, 096, 100 and 110), and one INFO document (INFO08r1) for the meetings consideration.

**5.6.1. Progress Report**

1. Document FM(14)110 was introduced and it was noted that there had been little activity, in the CG since the last WG FM meeting and that this was mainly as a result of there being no sharing study material from other groups (WG SE, CPG PTD) that could be used to update the draft CEPT Report (in response to the Mandate).
2. Documents FM(14)073r1 (LS from PTD on sharing between WAS/RLANs and other radio services), and FM(14)100 (LS from WG-SE on studies in the 5.8 GHz band), were noted.
3. The Chairman introduced Mr Marko Jandrisits of ASECAP (‘Association Européenne des Concessionnaires d’Autoroutes et d’Ouvrages a’ Péage’). He further added that a LoU (Letter of Understanding) was recently signed between ASECAP and the ECC. ASECAP explained (FM(14)092) the role of the organisation and its interest in the 5.8 GHz band, with respect to road tolling and enforcement. ASECAP expressed its support to the principles defined and agreed in CEPT when carrying out compatibility and sharing assessments between WAS/RLANs and SRDs operating in the 5725-5875 MHz band according to the Commission Decision (2006/771/EC).
4. ASECAP appreciates the possibility to participate to the WG FM as a new LoU partner of ECC. ASECAP (the European Association of Operators of Tolled Infrastructures) has 173 members who are constructing and operating more than 46 000 km of high level roads in Europe; 5.8 GHz DSRC or TTT is a tool to finance these investments and is been done since the early 90’s. The construction, operation and tolling is a duty of the states, the members have taken that over via fixed long term contracts.
5. ASECAP is particularly concerned about the possible impact of future WAS/RLANs on the performance of the tolling systems. ASECAP would like to underline that tolling in the EU is based upon the Directive 2004/52/EC that clearly and undoubtedly mandates the use of the 5.8 GHz band. However ASECAP is willing to express its support to the principles defined and agreed in ECC that there will be a similar approach to deriving the appropriate level of protection of the incumbent primary radio services, among them SRDs, in general and road tolling systems in particular.
6. Around 20 000 transceivers and 20 million pieces of on-board equipment are currently deployed for TTT and are generating revenues in the range of overall 26 billion Euros for states like: Czech Republic, Slovak Republic, Slovenia, Portugal, Poland, Norway, Italy, France, Denmark, Russian Federation, Germany, Austria etc.
7. Germany presented document FM(14)096, dealing with the use of the frequency range 5795-5815 MHz by Dedicated Short Range Communications (DSRC) technology in particular for electronic tolling systems in CEPT and EU member states. It points out that the use of the 5.8 GHz by DSRC technology is required by the EU legal framework (i.e. EU Directive 2004/52/EC on the interoperability of electronic road toll systems and EU Regulation 165/2014 on tachographs in road transport). Regarding the use for tolling purposes it highlights the sensitivity to potential interferences caused by new applications in the 5.8 GHz band.
8. The meeting agreed to take into account the information given within the development of the draft CEPT Report on 5.8 GHz and invited Germany to forward its input document to WG SE24. Furthermore, the list of references attached to document FM(14)096 was considered useful in particular for the future work of SRD/MG.
9. The Chair invited Dr Markus Richter of The European Automobile Manufacturers’ Association (ACEA) to present FM(14)INFO8r1. ACEA outlined the role of the association, the manufacturers it represented and the contribution made in terms of direct and indirect jobs, net trade contribution and tax revenues. ACEA noted the interest of its members in terms of the use of the 76 GHz band for automotive radars and in the 5.9 GHz band for a system referenced as Corporative ITS. In discussion it was reflected that it was important not to confuse terms and frequency bands between those used in the USA and those in Europe. The European Commission reassured the ACEA representative that road safety related ITS was a European priority. The Czech Republic noted that road safety related ITS was outside the ITU Radio Regulations definitions for a safety service. The Chairman thanked the ACEA for their presentation.

**5.6.2 Establishment of a new FM Project Team**

1. The Chairman reflected on the decision reached at the previous WG FM meeting (#79) to turn the 5 GHz Correspondence Group into a Project Team.
2. ESA noted that it appeared that little could currently be done in the PT and noted that no finalised information on the technical and compatibility studies had been made available and that a number of groups, in CEPT, had a joint interest in the matter. ESA felt that the 5 GHz discussion should remain within a CG.
3. The Chair reflected that the ECC Meeting (#35) in November 2013 had decided that a PT might be needed as the work progress and after the initial draft response (to the Commission Mandate) delivery in March 2014. He added that his experience with the CG on GSM-R illustrated that, to get quality output, a CG without physical meetings was not practicable. Sweden agreed with this view and noted 20+ participants addressing sensitive matters were difficult to manage under a correspondence group and using web-meetings only.
4. ESA noted that the CG was merely a collection of information and that Task 3 of the Mandate was a long way in the future.
5. The Chair noted that the work related to the response to the Mandate was more than just a copy and paste of information. Germany supported the establishment of a PT, along with Sweden and the Czech Republic. The Chair stated that general PT Terms of Reference note regard electronic working, be added to the PT Terms of Reference. This was agreed by the meeting.
6. Austria stated that it was important that the RLAN parameters used for the technical studies have to be stable and recommended this point be added to the ToR. The Chair noted that this was better reflected in the technical and compatibility work which was not within the scope of the work of the CG and therefore out of the scope of the proposed PT. Sweden recommended that this issue be raised in WG SE / SE24. The representatives of the Wi-Fi Alliance stated they would relay the concern stated on parameters and mitigation techniques into WG SE / SE24 as the Wi-Fi Alliance stated they participate in the group. In discussion it was noted that the results and output of the ITU-R JTG 4-5-6-7 work would be captured via CPG PTD and the Task 3 of the Mandate would be addressed after the WRC (WRC-15).
7. The draft ToR for the new Project Team (FM55) were presented. These were revised by the meeting and approved and are attached at **Annex 30**. The meeting then approved, by acclamation, Mr Andrew Gowans (UK) as the Chairman of the new group.
8. The ECO will establish a website for FM55 as it is also available for the other Project Teams. Future meeting dates, for physical or web-meetings of FM55, will be scheduled by the FM55 Chairman and will be shown on the website.

**5.7 PMR/PAMR electronic questionnaire, 400 MHz**

1. Mr Thomas Weber (ECO) presented the ECO summary of the PMR/PAMR Questionnaire in doc. FM(14)104. Responses from 32 administrations (part A of the Questionnaire) and 13 entities from industry and users (part B of the Questionnaire) had been received. One further response is outstanding due to the ETSI internal consultation process from ETSI TC ERM / ERM TG DMR. Mr Weber explained a short first overview summary and that there is the need that a Project Team should assess the information collected via the questionnaire.
2. In addition, in relation to the concerns expressed in doc. FM(14)054 from ETSI, Mr Weber explained that the dominant usage in the 400 MHz PMR/PAMR frequencies is for narrowband PMR/PAMR applications and that the same concern was expressed by several respondents of the questionnaire with regard to the unwanted emissions from LTE-based systems in the 400 MHz range; this would also need to be discussed by the Project Team assessing the results of the questionnaire. The on-going studies in SE7 for BB PPDR would also address this issue.
3. WG FM tasked FM54 with the assessment of the responses received on the PMR/PAMR Questionnaire (400 MHz).
4. Mr Weber informed WG FM that about half of the respondents used the electronic questionnaire while the other half preferred to provide answers on paper. The exercise and the experience gained now will certainly help the Office to improve the electronic questionnaire tool in the near future.

**6 New work items**

**6.1 New EC Mandate on 1.5 GHz**

1. The EC Councillor, Mr Giuseppe Rizzo (DG Connect), introduced the EC Mandate on 1.5 GHz (see document FM(14)59rev1) sent to the ECC in April 2014. Through this Mandate, CEPT is tasked to develop harmonised technical arrangements and conditions for wireless broadband usage of the 1452-1492 MHz frequency band as well as related harmonised sharing and compatibility conditions, wherever necessary, with incumbent services/applications in the same or in adjacent bands, including at the EU outer borders.
2. Considering the schedule associated with the Mandate (July 2014 as date to deliver the draft CEPT Report and December 2014 for the final CEPT Report), it had been agreed to set up a Correspondence Group under WG FM, coordinated by Dr Benoist Deschamps (F), with the task to develop the draft CEPT Report for consideration at this WG FM meeting.
3. Mr Bruno Espinosa (ECO) introduced with document FM(14)077rev1 the report from the Correspondence Group on behalf of the coordinator. The CG only worked by correspondence using a dedicated e-mail reflector with approximately 40 persons registered to it.
4. The CG managed to complete the draft CEPT Report in response to the Mandate. It was elaborated on the basis of the existing deliverables already adopted by the ECC in relation to WBB SDL, namely the ECC Reports 188 and 202 and the ECC Decision (13)03 and further refined, taking into account on-going activities within CPG PTD and ECC PT1.
5. Within the CG, some discussions took place on the issue of compatibility between SDL and fixed links operated below 1452 MHz or above 1492 MHz. This was solved, using ECC Report 202 as a basis, with the addition of text providing the possibility for the concerned administrations to implement at national level some specific measures to address this coexistence issue, if required.
6. The meeting considered the information provided by CPG PTD (FM(14)072) on the coexistence between SDL and aeronautical telemetry and by WG SE (FM(14)102) on their on-going studies addressing adjacent channel compatibility within the band 1452-1492 MHz between T-DAB and SDL and cross-border coordination between SDL and other systems (T-DAB and aeronautical telemetry). It was highlighted that these elements had been taken on-board by the CG in the latest version of the draft CEPT Report. Furthermore, Sweden highlighted the importance of a definition, or at least a clear description, of aeronautical telemetry in this context and may address this issue during the public consultation of the draft CEPT Report.
7. The meeting considered the draft CEPT Report as contained in Annex 1 of document FM(14)077Rev1. It was agreed to add a footnote reflecting information from WG SE on the recommended coordination threshold for cross-border coordination between T-DAB and MFCN SDL. With a few additional modifications improving the text, WG FM approved the draft CEPT Report 54 (**Annex31**) in response to the L-band EC Mandate. It is submitted to the ECC for approval for public consultation.
8. In case of approval for public consultation by the ECC, WG FM tasked the Correspondence Group to address the responses submitted to the public consultation.

**6.2 New EC Mandate on 2.3 GHz**

1. The EC Councillor, Mr Giuseppe Rizzo (DG Connect), introduced the EC Mandate on 2.3 GHz (see document FM(14)60rev1) sent to the ECC in April 2014. It contains two tasks:

**Task 1:** Develop common and minimal (least restrictive) technical conditions for wireless broadband usage of the 2300-2400 MHz frequency band.

**Task 2:** Where appropriate develop common technical sharing solutions for the shared use of the 2300-2400 MHz band for WBB and incumbent services/applications.

1. Taking into account the schedule outlined in the EC Mandate, FM52 had developed the draft CEPT Report 55 in response to Task 1 (Annex 1 of document FM(14)076). This is mainly derived from the technical conditions described in ECC Decision(14)BB (see section 4.6.2).
2. WG FM considered and endorsed the draft CEPT Report 55 (**Annex 32**) with some modifications consistent with the modifications brought to the draft ECC Decision(14)BB. It is submitted to the ECC for approval for public consultation.
3. The FM52 Chairman reported about the concerns expressed in FM52 that the results contained in CEPT Report 55 in response to Task 1 do not provide the full picture of the issue and that activities within the EC on harmonisation measures for WBB in the band 2.3-2.4 GHz should take into account the results related to both Task 1 and Task 2. It was identified that this may be addressed in the covering note from the ECC when sending the draft CEPT Report to the EC.
4. The FM52 Chairman also reported about the preliminary discussions on the work required under Task 2:

* With regard to Task 2.1, FM 52 proposes to take as a starting point the results from the questionnaire issued by WG FM on the current and future usage of the frequency band 2300-2400 MHz (available as FM(12)017Rev1).
* With regard to Task 2.2, FM 52 proposes, for each of the incumbent services, to conduct a case study to identify the possible sharing solutions, based on the information provided by national administrations on the usage conditions of the incumbent services.

This was endorsed by WG FM and interested CEPT administrations are invited to take part in FM52 activities.

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

**7.1 EC recent activity**

1. The EC Councillor, Mr Giuseppe Rizzo, highlighted the following points:
2. RSC meeting #47 (19-20 March 2014), see Infodoc. 002:
3. The text of a Commission Decision on the 3.6 GHz band was debated and finally approved. It is an Implementing Decision amending Decision 2008/411/EC on the harmonisation of the 3400-3800 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community. Following the RSC approval it was adopted by the Commission on 2nd May and has got the number 2014/276/EU. It was published in the OJ L139/18 of 14 May 2014.
4. After approval by the RSC #47, the Commission submitted to CEPT a Mandate on the 1.5 GHz band (FM(14) 059r1). The purpose of the mandate is to contribute to achieving EU policy objectives laid down in the Radio Spectrum Policy Programme and the Digital Agenda for Europe in terms of providing additional spectrum resource for wireless broadband and promoting innovation in spectrum sharing. The scope of the Mandate is limited to the 1452-1492 MHz frequency band. A short-term deliverable is foreseen for December 2014.
5. A further Mandate was submitted to CEPT after approval by RSC #47. It concerns the development of harmonised technical conditions for the 2300-2400 MHz (2.3 GHz) frequency band in the EU for the provision of wireless broadband services (FM(14) 060r1).
6. On PMSE The Commission services presented a document (RSCOM14-04) containing draft elements for a Commission Implementing Decision on the technical conditions for radio spectrum use by wireless microphones and associated applications for programme making and special events (wireless audio PMSE equipment) in the European Union.
7. Concerning the Spectrum Inventory, Member States were informed about the state of preparation of the Commission Report to the European Parliament.
8. On Short Range Devices, the Commission presented the guidance document for the 6th update of the SRD decision. The document was later submitted to the 61st meeting of the SRD/MG to gather the group's views and feedback.
9. Next RSC meeting will be on 2-3 July 2014.
10. RSPG meeting #33 (19 February 2014), see Infodoc. 001:
11. The rapporteur of the working group on the preparation of WRC-15, Mr Rainer Wegner, provided an update on the discussion in particular on the agenda items 1.1 and 1.2 on spectrum for wireless broadband. With regard to other EU policy areas he reported that the working group agreed on first elements for common policy objectives. Furthermore, Mr Wegner reported on the intention of the group to identify potential agenda items for future conferences at a very early stage taking into account both the need to ensure long term consistency with EU policy and the impact of European proposals on WRC-15 agenda items.
12. On bilateral coordination, the Rapporteur, Mr Eric Fournier (ANFR, France) introduced the progress report of the working group summing up the on-going cases in the RSPG "good-offices" in particular providing updates on Italy-Malta, Italy-Slovenia and Germany-Belgium trans-border interference issues.
13. On Wireless Broadband, the Commission gave an oral update on recent developments related to the proposed regulation concerning the Telecoms Single Market.
14. Participants of the EU projects METIS and MiWave gave a presentation on the current status of activities and main objectives on 5G research projects. An exchange of views took place with RSPG Members.
15. Following a discussion the RSPG agreed by unanimity on the updated RSPG Work Programme.
16. At the RSPG meeting, the Commission representative gave an oral update on the launch of the High-Level Group on the future of the UHF band. He reported that the group has been set up, the first meeting took place in January 2014 and the final report by the chairman Mr Pascal Lamy is planned to be made public by July 2014. He pointed out that the group has decided not to report publicly on on-going discussions or interim findings.
17. Concerning the WG on efficient award and use of spectrum, RSPG Members commented on the need to include legislative provisions in addition to license conditions when considering non-technical usage conditions, the need for a bottom-up approach in identifying best practices, and the usefulness of an informal peer-review process between Member States with regard to spectrum awards procedures and rules.
18. Mr Didier Chauveau provided an overview of the outline document with regard to the planned consultation meeting with the defence sector. He stressed the link to previous RSPG work on public use of spectrum and the relevance of spectrum issues linked to defence for the spectrum inventory. He then proposed a plan for the way forward to set up the format and agenda of the meeting, which will take place on 11 June 2014. He invited RSPG members to attend accompanied by a national representative from the Defence sector.
19. Next RSPG meeting will be on 12 June 2014.
20. Adoptions/Publications:
21. The Commission adopted on 22 April the Report to the European Parliament and the Council on the implementation of the Radio Spectrum Policy Programme (WG FM #80 Info 003). A final report on the first RSPP and progress towards the targets set is planned for the end of 2015.
22. Studies/Workshops:
23. The study "Use of commercial mobile networks and equipment for mission-critical high-speed broadband communications in specific sectors" (SMART 2013/0016) was awarded to SCF Associates Ltd and the Study was launched in January 2014. The objective of the Study is to determine whether use of commercial mobile networks and equipment for ‘mission-critical’ high-speed broadband communications in the following sectors is viable: for Public Protection and Disaster Response (PPDR) services, utilities and intelligent transport safety and management services (ITS). A stakeholder workshop took place in Brussels on 30th April. An interim report has already been transmitted to the Commission and the final version should be available in October 2014.
24. Calls for Tenders for 2 Studies have been published:
25. i) The socio-economic benefits of network sharing (SMART 2014/0024) and
26. ii) Research of the market with spectrum-dependent ICT equipment operating in unlicensed frequency bands (SMART 2014/0012).
27. The Radio Equipment Directive (RED) which repeals the R&TTE Directive was adopted on 16 April (see Infodoc. 005). It has the number 2014/53/EU (OJ L153/62 of 22 May 2014). Member States will have to apply the new rules as of 13 June 2016.
28. The EC Councillor also reported shortly about the latest COCOM MSS WG meeting which took place in Brussels on 23 May:
29. In the first part of the COCOM meeting there was a presentation of a study on MSS authorisation regimes, authorisations and enforcement in the EU Member States (similar studies were already performed by other consultants in the past). It is expected that the study will be finalised soon and thereafter be available online.
30. The second part of the meeting was dedicated to a number of issues, including an update on enforcement action undertaken by Member States and a discussion on concepts used in the EU rules such as the concept of complementary ground components.
31. The chair of the COCOM MSS WG reports to the COCOM regularly. The next COCOM is planned for 30 June in Brussels.

**7.2. ETSI activity**

1. Mr Weber presented doc. FM(14)105 (ETSI/ECO), the ETSI/ECC Group Reference Matrix. The ECO updated the list during WG FM #80 to reflect the new PTs FM54 and FM55 (see **Annex 33**). The list will be forwarded to the ECO contact for WG SE who works together with the ETSI on updating the matrix.
2. The ETSI Liaison Officer explained that the ETSI link with the SRdocs under creation or revision was not updated but that an update is expected soon. Several SRdocs are in the ETSI internal consultation and may soon come to the WG FM. *Note: The most recent information on SRDoc work items and draft SRdocs can also be found in the EFIS database under documents -> draft SRdocs.*
3. Finally approved for publication:  
   - ECC Recommendation (14)04 on ‘Cross-border coordination for MFCN and between MFCN and other systems in the frequency band 2300-2400 MHz’;  
   - ECC Report 214 on ‘Broadband Direct Air To Ground Communications’;  
   - Amended European Common Allocation (ECA) Table (ERC Report 25), publication after the ECC meeting in June 2014;  
   - Results on radio interference statistics (on the ECO website).
4. Approved for public consultation:  
   - Draft new ECC Recommendation (14)05 on 'Amateur Radio Licence Examinations for Persons with Disabilities';  
   - Draft revised ERC Recommendation T/R 61-02 on ‘Harmonised Amateur Radio Examination Certificate’;  
   - Draft revised ECC Report 44 on ‘frequency management during major events’;  
   - Draft new ECC Report 219 on ‘digital video links for PMSE (wireless equipment for Programme Making and Special Events)’.
5. WG FM invited ETSI to note the above mentioned ECC deliverables.

**8. Vice Chairmanship of WG FM**

**8.1 Reappointment of a Vice Chair**

1. The current Vice Chair Ms Cristina Reis (POR) was appointed by acclamation for a new term.
2. She thanked the participants for the confidence placed in her.

**8.2 New appointment of a Vice Chair**

1. The WG FM has received a nomination from the UK. The meeting appointed by acclamation Mr Stephen Talbot as new WG FM Vice Chairman. He thanked the participants for the confidence placed in him.

**9. Any Other Business**

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

1. Mr Weber presented doc. FM(14)082 on the ECO assistance to WG FM.
2. He explained concerning the last ECO Bulletin to the ECC, that additional information was added regarding direct-air-to-ground communications in the USA about AT&T seeking regulatory approval for DA2GC in the USA. AT&T wants to use frequencies of the 2.3 GHz Wireless Communication Service (WCS) band in the USA. AT&T will need permission from the FCC to make use of the spectrum in that way. FAA approval process can take longer time than indicated in the article. AT&T has 5 MHz up and 5 MHz down, US nationwide, in the WCS band. AT&T plans to build ≥1 000 towers (ground stations) for such a system in the USA. The system would be a second DA2GCS in the USA (after the existing Gogo-system). This information may also be relevant for inclusion in ECC Report 214 which was on the agenda for final approval for publication in WG FM #80. WG FM agreed to include a short text in the approved ECC Report 214.
3. Mr Weber informed the WG FM that the Office will take part in a special session on New Trends in Spectrum Engineering during the 56th International Symposium ELMAR-2014, which will be held on 10 to 12 September 2014. The following presentation will be made: “Existing results and near future work in CEPT on cognitive radio solutions for wireless applications under general authorization regime”. The motivation for the presentation is the current activity within SRD/MG regarding the 6th update of the EC Decision for SRD and current plan to check usability of cognitive systems in SRDs applications. This action was originally proposed by the United Kingdom in the SRD/MG.
4. The WG FM noted the information included in doc. FM(14)082 and endorsed the action described above.

**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. WG FM Chairman reminded that Chairmen of PTs, CGs and FGs in cooperation with Mr. Thomas Weber (ECO) have to 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. WG FM Chairman invited all delegates, Chairmen of PTs and FGs to review ECC work programme database and report about any mistakes or missing information with respect to the work items (WI) of WG FM to Mr. Thomas Weber (ECO).

**11.2 Schedule of Meetings**

1. WG FM Chairman invited the participants to note the schedule of meetings in 2014/2015 and to consider possible venues for WG FM meetings in 2014 and 2015.
2. The next WG FM meeting will be held from 6-10 October 2014 at ETSI in Sophia-Antipolis / France. The official invitation will be provided by ETSI. Information on how getting to ETSI and other related practical information is also available on the ETSI website: <http://www.etsi.org/about/getting-to-etsi>
3. The schedule for future WG FM and Project Team meetings with indicating ECC, ECC PT1 meetings is as follows:

| Meeting | Date | Place |
| --- | --- | --- |
| 12th FM Maritime FG | 17 – 19 June 2014 | ECO, Copenhagen |
| 37th ECC | 24 – 27 June 2014 | Aarhus, Denmark |
| 8th FM 52 | 30 June – 01 July 2014 | ECO, Copenhagen |
| 13th FM 51 | 02 – 03 July 2014 | ECO, Copenhagen |
| 7th FM 53 | 08 – 09 July 2014 | Maison-Alfort, France |
| 16th FM48 | 08 – 09 July 2014 | Mainz, Germany |
| 31st FM 44 | 17 – 18 June 2014 | Mainz, Germany |
| 62nd SRD/MG | 27 – 29 August 2014 | Biel, Switzerland |
| 34th EFIS/MG | 10 – 11 September 2014 | Biel, Switzerland |
| 9th FM 52 | 10 – 12 September 2014 | TBD |
| FM CG 2GHz Unpaired | 19 September 2014 | TBD (web or physical) |
| 42nd FM 22 | 23 – 26 September 2014 | ECO, Copenhagen |
| 16th FM 49 | 30 Sept – 02 Oct 2014 | TBD |
| **WG FM 81** | **06 – 10 October 2014** | **ETSI; Sophia-Antipolis, France** |
| 10th FM 52 | 04 – 06 November 2014 | TBD |
| 17th FM 49 | 11 – 13 November 2014 | TBD |
| 38th ECC | 25 – 28 November 2014 | Switzerland |
| 63rd SRD/MG | 10 – 12 December | Mainz, Germany |
| **WG FM 82** | **09 – 13 February 2015** | **TBD** |
| 39th ECC | 03 – 06 March 2015 | Hungary |
| **WG FM 83** | **18 – 22 May 2015** | **TBD, Germany** |
| 40th ECC | 30 June – 3 July 2015 | Finland |

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

**12 Minutes of the Meeting**

1. WG FM approved the minutes of the meeting. It was agreed that the WG FM Chairman and Secretariat could improve the text and correct mistakes as necessary following the meeting.
2. The WG FM Chairman proposed only to attach new or changed Terms of Reference of Project Teams in the Annexes of the Minutes of WG FM meetings in the future. He remarked that all up-to-date versions of the Terms of Reference of the Project Teams can be found on the ECO webpage. The meeting agreed on the proposal.

**13 Closure of the Meeting**

1. The WG FM Chairman thanked the Norwegian Administration, especially Ms Cathrine Solheim from NPT for the marvellous organisation of the meeting and ordering such a sunny weather. The meeting facilities including the catering were impressing, he remarked. He also thanked for the social event, which took up the participants on an interesting guided tour to Nidaros cathedral followed by a nice boat trip on Nidelven River and Trondheimsfjorden to Munkholmen. There the participants metamorphosed into monks, enjoyed locally brewed beer and the evening ended up with a delicious dinner.
2. The Chairman thanked the WG FM delegates, the Project Team Chairmen, the ECO (Mr Thomas Weber) and the Vice-Chairs, Ms Cristina Reis (POR) and Mr Stephen Talbot (UK), WG FM secretaries (Ms Hannelore Schwarz (D), Mr Silvio Schwarz (D)) for their assistance and wished all the delegates a safe journey home.

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