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| ECC Logo Plenary | Doc. ECC(17)117 Rev2  |
| 46th ECC Meeting |  |
| Bucharest, 14th – 17th November 2017 |  |
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The 46th meeting of the Electronic Communications Committee (ECC) was held in the city of Bucharest, Romania, at the kind invitation of the National Authority for Management and Regulation in Communications of Romania (ANCOM).

# Opening of the meeting

The ECC Chairman, Mr Eric Fournier (F), opened the meeting and welcomed the participants.

The Chairman gave the floor to Mr Bogdan Iana, Vice President of ANCOM.

Mr Iana stated that the Romanian Authority is proud to host such an important meeting, as the Electronic Communications Committee is Europe’s focal point for information on electronic communications, with extensive expertise in managing scarce resources, where the CEPT positions are achieved for the work in ITU, as well as in cooperation with the European Commission, ETSI, and other relevant international organisations.

Mr Iana emphasized the busy agenda and the important issues that the meeting will have to address with many CEPT reports and ECC decisions for adoption or sending into Public consultation. He also mentioned the CEPT roadmap on 5G and stressed that the complex work done in the ECC working groups and project teams is paving the way towards an increasingly interconnected ecosystem of communications throughout Europe.

Mr Iana concluded by wishing to all participants a successful ECC plenary and by stating that they will try to make the meeting as pleasant as possible for all participants. He wished to all a fruitful working experience and a nice stay in Bucharest!

Mr Fournier thanked Mr Iana for his kind words and for the invitation in Bucharest. He stressed his experience of the Romanian sense of hospitality he enjoyed in previous meetings and thanked for the support and expertise that ANCOM is bringing in the ECC activities.

The meeting was attended by 78 delegates representing 31 Administrations, the European Commission, the Office and 9 observers. The list of participants can be found in Annex 02. The list of output documents is given in Annex 01

# Adoption of the Agenda, Schedule of work

The Chairman informed the meeting about the last update of the draft agenda. The meeting adopted the agenda as given in Annex 03.

# Reports on ECC and other activities

##  Minutes of the 45th Steering Group meeting

The Chairman presented the minutes of the 45th Steering Group meeting (document ECC(17)080) drawing the attention of the meeting on several issues:

* The next ECC/PT1 meeting being in December 2017, the public consultation for ECC/ PT1 deliverables will end after the next ECC/PT1 meeting. However, it is expected that the resolution of comments could be carried out by correspondence.
* The ECC SG agreed, on the basis of an input from ECO, a draft revision of the CEPT 5G roadmap. In addition, the SG discussed the need to update the list of bands for priority studies for WRC-19 and concluded that this issue of substance should be dealt through a multi-country proposal to ECC.
* The proposed arrangement to enable CEPT to provide elements of response to the technical questions raised following the RSC#61 meeting on railways issues in the context of consideration of SRD in the 800/900 MHz band,
* The ECC Report 272, currently in public consultation which will replace ECC Report 66 and lead to a revision of several ECC decisions including restrictions on VSAT around airports
* The need to liaise with ETSI in relation with the studies and the sharing solutions needed to respond to the new ITS mandate
* The task given to ECO to prepare a document to review the previously agreed action points on interference from RLAN to 5 GHz meteorological radars
* The process of revision of ERC Rec.74-01 and the request to WGSE/ECC PT1 chairmen to prepare a liaison statement to ETSI to address the discrepancy between ERC Rec.74-01 limits and 3GPP assumptions on spurious emissions for 5G equipment.
* The suggestion for a workshop on spectrum for drones in June 2018
* The agreement in the Steering Group for a draft update of the Working Method, on the basis of a document submitted by ECO.
* The review by ECO of the MoU/LoU and the partnership with Forum Europe on 5G conference
* The survey on the new ECO website and the proposal to change the meeting registration options.

These elements as well as some other elements discussed within the Steering Group are addressed in the relevant sections.

## Minutes of the ECC-EC meeting

The ECC Chairman introduced document ECC(17)081, containing the minutes of the EC-ECC consultation meeting, held in Brussels on 24 October 2017, which mainly dealt with the details and the arrangements to respond to the various EC mandates, most of them being covered within the Agenda of this ECC meeting.

## ECO Bulletin on on-going/new issues in other regions or organisations

The ECO introduced document ECC(17)082 the ECO’s regular bulletin on developments outside the ECC. Particular attention was drawn to the following issues:

* Update from APT;
* Net neutrality in the US;
* Additional 1700 MHz of spectrum in support of 5G innovation in the US;
* The FCC consultation on spectrum for WAS/RLAN.

The relevant ECC entities were identified and they will be invited, via the relevant ECO expert, to consider the ECO Bulletin in more detail.

# Report from RSCOM, RSPG and TCAM

The EC Counsellor presented document ECC(17)088 covering the activities of the European Commission since the last meeting. Most elements presented were discussed in the relevant sections of the minutes.

# Report from ETSI

Michael Sharpe and Georges de Brito presented the ETSI Technical Activities Report to CEPT/ECC (document ECC(17)089), emphasising the following points:

ETSI has published Harmonised Standards implementing the majority of the work programme under the Radio Equipment Directive (RED), which have been cited in the OJEU in most cases. Document ECC(17)089 summarises the schedule of those Harmonised Standards which have not yet been published, and those which are under review. It also provides links to where the Harmonised Standards can be downloaded.

ETSI reported that the issue of Harmonised Standards not being cited in the OJEU is a general issue covering many Directives under the New Legislative Framework (including the RED). The central standardisation unit (DG GROW B.3) has agreed an Action Plan with the three European Standardisation Organisations. The central unit will set up a centralised system of Harmonised Standards Technical Consultants (HASTAC) who will represent the Commission within the ESOs during the drafting of Harmonised Standards and will also carry out the evaluation of the Harmonised Standards representing the Commission with the ESOs.

Regarding the specific issues affecting the RED, ETSI reported on a specific meeting that Commission had organised with ETSI, CENELEC and the TCAM delegations to identify specific issues affecting the RED. The issues affecting ETSI Harmonised Standards affect primarily the treatment of measurement uncertainty, the selection of parameters to characterise receivers and revisions of standards where parameters had been “worsened” (made less technically constraining). ETSI reported that measurement uncertainty had been studied in detail, including meetings with the ADCO group, and significant progress seems to have been made. Regarding “worsening requirements”, it was recognised that standards resulting on less technically constraining limits may be appropriate in some cases (for example, where it reflects a similar evolution of CEPT/ECC deliverables) – this needs to be considered in a case-by-case basis (via special meetings with TCAM & RSCOM as necessary). ETSI reported that many of the issues regarding the selection of receiver parameters affect Ultra-Wide Band systems (including “short-range radar”) which are “underlay” systems which need to be specified using different parameters to those used for traditional radio. ETSI announced that it had started **Specialist Task Force 541** to develop “signal interferer handling” to characterise such receivers. ETSI specifically invited ECC Administrations to monitor the work of this group to be sure that UWB receivers meets the requirements for efficient and effective use of the spectrum to the satisfaction of radio spectrum managers.

ECC noted that ETSI is inviting administrations to be more engaged in the standardisation activity and that Harmonised Standards Technical Consultants (HASTAC) could intervene in future ETSI drafting process of Harmonised Standards supporting the assessment of conformity to the RE-Directive. During the discussion, it had been mentioned that the ETSI Technical Working Procedure (TWP) are under a revision process. This could be an opportunity to improve the TWP in order to incorporate the existing provisions of the CEPT-ETSI MoU, in particular that ETSI shall respect the results of CEPT sharing studies when the drafting an HS and to clarify the final evaluation process in ETSI of the Harmonised Standards before publication at the OJUE. This process involves the Commission with ETSI. The recent discussions between ETSI, the Commission and the Member states on the need to resolve the Commission’s comments on proposed HS before submission for publication in the OJEU were noted. The ECC chairman invited the administrations to consider, when appropriate, the above issues when contributing to the ETSI process to revise to ETSI TWP.

ETSI identified the status of System Reference Documents under preparation within ETSI, some of which are referred to under specific agenda items, and also presented liaison statements that had been agreed at the recent TC ERM.

## ETSI-ECC cooperation

ECO presented in document ECC(17)110 a proposed update of the ECC-ETSI brochure on the introduction to the regulatory environment in Europe for radio equipment and spectrum. ECC endorsed the proposed changes and tasked the ECO to finalise the publication of the new version of the brochure.

Furthermore, the ECC noted the additional information on the ECC-ETSI cooperation as contained in document ECC(17)110. In particular, the meeting outlined the importance of the process set up for the monitoring of ETSI harmonised standards and the corresponding [spreadsheet](https://cept.org/files/7326/List_of_Harmonized_standards_related_to_ECC_work-October%202017.xlsx) (last update in October 2017), in order to support the consistency between ETSI Harmonised Standards and related ECC deliverables, with the involvement of the concerned ECC groups (in particular WG SE and its Project Teams and also ECC/PT1 when appropriate).

# Draft ECC Decisions

## Final Approval of Draft new ECC Decision (17)06 on theharmonised use of the frequency bands 1427-1452 MHz and 1492-1518 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL)

The ECC PT1 Chairman presented ECC(17)087 Annex 2. This draft ECC Decision is for the use of MFCN in the frequency bands 1427-1452 MHz and 1492-1518 MHz, which were identified for IMT at WRC-15. This was discussed alongside draft ECC Report 269 and draft CEPT Report 65.

The Decision provides a frequency arrangement based on extension of the 5 MHz raster from the 1452-1492 MHz band with national flexibility for partial availability of either frequency band to respond to national needs and market demand. In addition, it implements the block edge masks from the accompanying draft ECC Report 269 and includes specific conditions to address compatibility with other services in the 1400-1427 MHz and 1518-1525 MHz bands. The ECC PT1 Chairman noted that Annex 3 contained the resolution table, showing how the comments had been considered by ECC PT1.

The ECC finally approved ECC Decision (17)06 on the harmonised use of the frequency bands 1427-1452 MHz and 1492-1518 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL) (**Annex 05** / **Temp 03 Rev1**) and tasked the Office to publish it.

24 administrations indicated that they will implement this ECC Decision. 5 administrations informed the meeting why this ECC Decision cannot be implemented;

Germany explained that they have implemented the current version of ECC Decision (13)03, related to the band 1452 - 1492 MHz, but they will not be able to implement ECC Decision (17)06 because of military radio applications below 1452 MHz and above 1492 MHz.

The Netherlands indicated that it is not able to implement the decision because of the use in these bands for national security purposes.

The UK welcomed the adoption of this ECC Decision. However the UK is not able to implement it as it cannot designate the bands for MFCN due to military use in 1427 – 1452 MHz and fixed links in 1492 – 1518 MHz.

The Russian Federation indicated that it is not able to implement the decision because of the use in these bands for aeronautical telemetry.

## **Final Approval** of draft amended ECC Decision (01)03 on ECO Frequency Information System (EFIS)

ECC considered the following input documents:

ECC(17)096, outcome of the public consultation (ECO);

ECC(17)084 - Section 1.1 (WG FM progress report);

ECC(17)084 - Annex 1, draft amended ECC Decision (01)03, provided by WG FM.

Annexes 2 (list of searchable applications) and 5 (EFIS harmonised interface, data formats) of ECC Decision (01)03 on EFIS were approved by WG FM for public consultation in May 2017 (in this case for public consultation because of the additional revisions of the main body of the ECC Decision).

WG FM, during its meeting in October 2017, agreed on a stable draft version and approved Annexes 2 and 5 again for administration consultation because of additional amendments which were needed. No comments were received neither during the public consultation before the WG FM meeting nor during the additional administration consultation**.**

No further amendments were proposed during the ECC meeting.

The ECC finally approved the amended ECC Decision (01)03 on ‘ECO Frequency Information System (EFIS)’ (**Annex 08 / Temp 06**) and tasked the Office to publish it.

The information on the implementation of this ECC Decision will be retained.

## Draft revision of ECC Decision (13)03 on MFCN in 1452-1492 MHz for public consultation

The ECC PT1 Chairman presented ECC(17)087 Annex 9. This was developed in response to the request from ECC to ensure that the revised ECC Decision (13)03 would specify what measures are to be followed if MFCN is deployed immediately below 1452 MHz or immediately above 1492 MHz.

The main changes concern Annex 2 within the Decision and the applicability of the e.i.r.p. limits outside the 1452-1492 MHz band.

The meeting clarified that the more stringent e.i.r.p. limits are deactivated only when the blocks immediately adjacent to 1452 MHz and/or 1492 MHz are used by MFCN.

The ECC approved for public consultation the draft revision of ECC decision (13)03 on MFCN in 1452-1492 MHz (**Annex 09** / **Temp 07 Rev1**)

The meeting noted that due to the short time frame before the next ECC PT1 meeting, it is planned that ECC PT1 will do the review of public consultation comments by correspondence.

## Draft revision of ECC Decision (06)13 on 900-1800 MHzfor public consultation

The ECC PT1 Chairman presented ECC(17)087 Annex 10, which was developed in response to the ECC request, following publication of ECC Report 266. This draft revision of ECC Decision (06)13 includes technical conditions for the use of IoT cellular systems in the 900/1800 MHz bands. In particular, it includes the additional technical conditions to accommodate the introduction of standalone and guard band NB-IoT in the bands covered by this ECC Decision.

Some corrections were made to replace the reference to the harmonised standard for WCDMA repeaters with the correct reference to the harmonised standard for LTE repeaters. In addition, the title was revised to refer to IoT cellular systems; this change was also reflected in Decides 4.

In respect of the question of whether there is a need to maintain technical conditions for WiMAX in this ECC Decision, the meeting decided to highlight it in the covering letter of the public consultation and to invite views on whether WiMAX should be kept in this ECC Decision. The covering letter for the public consultation is contained in **Annex 10 / Temp 14**.

In addition, a question was raised on whether the current cross-border conditions are also applicable for the new IoT technologies. ECC PT1 was asked to consider this.

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| ECC PT1 is asked to look at whether the current cross-border conditions are also applicable for the new IoT technologies |

The ECC approved for public consultation the draft revision of ECC Decision (06)03 on 900-1800 MHz (**Annex 11** / **Temp 09 Rev2**)

The meeting noted that due to the short time frame before the next ECC PT1 meeting, it is planned that ECC PT1 will do the review of public consultation comments by correspondence.

## Editorial update of ECC Decision (05)02 on a harmonised frequency plan for the use of the band 169.4-169.8125 MHz

ECC considered the following input documents:

ECC(17)084 - Section 1.2 (WG FM progress report);

ECC(17)084 - Annex 2, draft amended ECC Decision (05)02, provided by WG FM.

WG FM had adopted updates of various ECC Decisions, including ECC Decision (05)02. The editorial changes include updates to the new format for ECC Decisions, changes following the transition from the R&TTE Directive to the RE Directive, updating the references to harmonised standards or adding a footnote on the cover page to inform about EC Decisions with equivalent technical requirements, where applicable.

A public consultation was not needed for such an update according to the ECC RoP.

The ECC meeting agreed on a new considering in ECC Decision (05)02, to clarify that the former EC Decision 2005/928/EC had been repealed (transferred into the EC Decision on SRD).

The ECC finally approved the updated ECC Decision (05)02 on ‘a harmonised frequency plan for the use of the band 169.4-169.8125 MHz’ (**Annex 12 / Temp 08 Rev1**) and tasked the Office to publish it.

There is no impact on the implementation of this ECC Decision.

## Editorial update of ERC Decision (01)11 on harmonised frequencies, technical characteristics and exemption from individual licensing of SRD used for Flying Model control operating in the frequency band 34.995-35.225 MHz

ECC considered the following input documents:

ECC(17)084 - Section 1.3 (WG FM progress report);

ECC(17)084 - Annex 3, draft amended ERC Decision (01)11, provided by WG FM.

For the same reasons as mentioned under agenda item 6.5, WG FM had adopted an updated version of ERC Decision (01)11.

The ECC meeting agreed on some additional editorial amendments.

The ECC finally approved the updated ERC Decision (01)11 on ‘Harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Flying Model control operating in the frequency band 34.995 - 35.225 MHz’ (**Annex 13 / Temp 10**) and tasked the Office to publish it.

There is no impact on the implementation of this ERC Decision.

## Editorial update of ERC Decision (01)12 on harmonised frequencies, technical characteristics and exemption from individual licensing of SRD used for Model control operating on the frequencies 40.665, 40.675, 40.685 and 40.695 MHz

ECC considered the following input documents:

ECC(17)084 - Section 1.4 (WG FM progress report);

ECC(17)084 - Annex 4, draft amended ERC Decision (01)12, provided by WG FM.

For the same reasons as mentioned under agenda item 6.5 WG FM had adopted an updated version of ERC Decision (01)12.

The ECC meeting agreed on some additional editorial amendments.

The ECC finally approved the updated ERC Decision (01)12 on ‘Harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Model control operating on the frequencies 40.665, 40.675, 40.685 and 40.695 MHz’ (**Annex 14 / Temp 11**) and tasked the Office to publish it.

There is no impact on the implementation of this ERC Decision.

## Editorial update of ERC Decision (01)17 on harmonised frequencies, technical characteristics and exemption from individual licensing of Ultra Low Power Active Medical Implant (ULP-AMI) communication systems operating in the frequency band 401-406 MHz on a secondary basis

ECC considered the following input documents:

ECC(17)084 - Section 1.5 (WG FM progress report);

ECC(17)084 - Annex 5, draft amended ERC Decision (01)17, provided by WG FM.

For the same reasons as mentioned under agenda item 6.5 WG FM had adopted an updated version of ERC Decision (01)17.

The ECC meeting agreed on some additional editorial amendments.

The ECC finally approved the updated ERC Decision (01)17 on ‘Harmonised frequencies, technical characteristics and exemption from individual licensing of Ultra Low Power Active Medical Implant (ULP-AMI) communication systems operating in the frequency band 401 - 406 MHz on a secondary basis’ (**Annex 15 / Temp 12**) and tasked the Office to publish it.

There is no impact on the implementation of this ERC Decision.

## Editorial update of ECC Decision (11)02 on Industrial Level Probing Radars (LPR) operating in frequency bands 6-8.5 GHz, 24.05-26.5 GHz, 57-64 GHz and 75-85 GHz

ECC considered the following input documents:

ECC(17)084 - Section 1.6 (WG FM progress report);

ECC(17)084 - Annex 6, draft amended ECC Decision (11)02, provided by WG FM.

For the same reasons as mentioned under agenda item 6.5 WG FM had adopted an updated version of ECC Decision (11)02.

The ECC finally approved the updated ECC Decision (11)02 on ‘Industrial Level Probing Radars (LPR) operating in frequency bands 6 - 8.5 GHz, 24.05 - 26.5 GHz, 57 - 64 GHz and 75 - 85 GHz’ (**Annex 16 / Temp 13**) and tasked the Office to publish it.

There is no impact on the implementation of this ECC Decision.

# CEPT Reports in response to EC Mandate

## EC mandate L band 1427-1452 MHz and 1492-1518 MHz

### Final approval of CEPT Report 65 “to develop harmonised technical conditions in additional frequency bands in the 1.5 GHz range for their use for terrestrial wireless broadband electronic communications services in the Union”

The ECC PT1 Chairman presented ECC(17)087 Annex 4 in response to the EC mandate. This version followed the review of public consultation comments. The resolution table was provided in ECC(17)087 Annex 5. This was discussed alongside draft ECC Decision (17)06 and draft ECC Report 269.

Draft CEPT Report 65 concludes on a harmonised frequency arrangement based on 5 MHz blocks. National flexibility is afforded by the use of the downlink-only frequency arrangement, which allows Member States to decide whether to make some or the entire spectrum from these bands available for wireless broadband communications.

In response to a question from the Commission about the partial use of 1 427-1 452 MHz or 1 492-1 518 MHz, ECC PT1 had provided separate clarification in ECC(17)087 Annex 6. The meeting decided to provide the necessary clarification in the draft CEPT Report on the conditions to be applied when WBB ECS is used immediately below 1 452 MHz or immediately above 1 492 MHz. The meeting also concluded that an administration should have the flexibility to introduce wireless broadband communications only on some blocks, taking into account that there is a clear preference for contiguous use and that there should be considerations at national level such as the need for sufficiently wide blocks.

The meeting agreed to include some text provided in a contribution from France (ECC(17)112) referring to the need to limit the maximum in-band power in the top 5 MHz block. It was also clarified that this requirement applies in all locations, not just in the vicinity of ports and airports. Sweden requested to maintain such flexibility in the CEPT Report, but this comment, already made during the public consultation had not been agreed during the resolution of comments and could not be agreed by the ECC.

The meeting considered the proposal from Slovenia in ECC(17)115 for a different measurement bandwidth for the out-of-block limits. ECC/PT1 already considered this proposal and had not been able to agree to modify it. There was opposition in ECC to this proposed change from a number of administrations and so it was not accepted.

The ECC approved the CEPT Report 65 “to develop harmonised technical conditions in additional frequency bands in the 1.5 GHz range for their use for terrestrial wireless broadband electronic communications services in the Union “ (**Annex 06 / Temp 04 Rev2**) and tasked the Office to publish it.

Statement from Sweden

Sweden is of the view that the level of protection of the reception of a service in a country is a national decision, provided that no other country is affected. The requirement on in band e.i.r.p. within the block 1 512–1 517 MHz in CEPT Report 65 intends to ensure compatibility between wireless broadband electronic communication services in the block and mobile satellite services (downlink) operating in the frequency band 1 518-1 525 MHz. Thus, our view is that regulations should provide national flexibility with regard to the in band power limit in consideration of national as well as cross-border circumstances.

## EC mandate on 5G – 3.5 GHz and 26 GHz

The ECC PT1 Chairman reported that the current schedule will require ECC PT1 to produce two draft CEPT Reports at its December ECC PT1 meeting for adoption at the February meeting of ECC for public consultation. ECC PT1 is currently developing two working documents towards draft CEPT Report A (3 400-3 800 MHz) and draft CEPT Report B (24.25-27.5 GHz) in response to the mandate.

## EC mandate on IoT/M2M 900/1800 MHz

### Draft CEPT Report “to review the harmonised technical conditions for use of the 900 MHz and 1800 MHz frequency bands for terrestrial wireless broadband electronic communications services in support of the Internet of Things in the Union” for adoption for public consultation

The ECC PT1 Chairman presented ECC(17)087 Annex 11 in response to the EC mandate. This had been produced alongside the draft revision of ECC Decision (06)13. The draft Report includes the additional technical conditions to accommodate the introduction of standalone and guard band NB-IoT in the bands covered by this ECC Decision.

Some corrections were made to replace the reference to the harmonised standard for WCDMA repeaters with the correct reference to the harmonised standard for LTE repeaters. The meeting agreed to highlight the question of whether there is a need to maintain technical conditions for WiMAX in these frequency bands in the covering letter to the Commission (**Annex 17 / Temp 17 Rev1**) and in the cover note for the public consultation (**Annex 18 / Temp 17 Bis**).

The ECC approved for public consultation the draft new CEPT Report “to review the harmonised technical conditions for use of the 900 MHz and 1 800 MHz frequency bands for terrestrial wireless broadband electronic communications services in support of the Internet of Things in the Union” (**Annex 19** / **Temp 15 Rev2**)

The meeting noted that due to the short time frame before the next ECC PT1 meeting, it is planned that ECC PT1 will do the review of public consultation comments by correspondence.

## EC Mandate on ITS

The new Mandate on ITS (“Mandate to CEPT to study the extension of the Intelligent Transport Systems (ITS) safety-related band at 5.9 GHz”) was introduced by the Counsellor of the European Commission, Mr Andreas Geiss (ECC(17)098 and 099).

The WG FM chairman introduced the latest activities within WG FM and SRD/MG (ECC(17)084 - sec. 1.7).

Work on the extension of the frequency band for ITS had been initiated already some time ago, triggered by the ETSI SRdoc on Urban Rail (CBTC). The working assumptions as defined by WG FM and set out in the liaison statement to ETSI from WGFM#87 (February 2017) are still valid with regard to shared spectrum use. The new Mandate on ITS had already been expected by WG FM. Work arrangements had been set up, an SRD/MG web-meeting had been planned for 20 November 2017 and an extraordinary SRD/MG meeting for 11 - 12 January 2018, focussing on this subject. The interim report is required until March 2018 according to the Mandate. The schedule for the revision of ECC/DEC/(08)01 on ITS needs to be aligned with the schedule of the EC Mandate.

As requested by the ECC SG, a contribution from the SRD/MG, WG SE and WG FM chairmen was introduced by the WG FM chairman (ECC(17)114). It provided a proposal for a liaison statement from ECC to ETSI, describing which contributions are expected from ETSI to support the development of the response to the Mandate. Detailed information was provided in two Annexes (short action plan and background document), which were proposed for submission to ETSI as part of the intended liaison statement.

During the discussion it was concluded that the liaison statement to ETSI should encompass the most relevant aspects, but should neither describe too many details nor cause the impression that any solution may be prejudged. The major aim is to trigger the work at ETSI. A further exchange of information is anyway possible based on the usual working process between the ECC working groups, project teams and ETSI.

The chairman of WG SE highlighted that the schedule according to the Mandate is rather tight and therefore challenging. The work within SE24 will start after the expected liaison statement from WG FM in February will have been received.

The meeting agreed that the interim report to the European Commission due by March 2018 should aim to be concise and provide a focus on the following items:

* technology neutrality for road ITS and Urban Rail and its consequences;
* safety-related requirements for road ITS and Urban Rail;
* preliminary elements on coexistence scenarios and mitigation techniques.

It was also indicated during the discussion that the outcome of WG SE will not be needed for the interim report to the Commission.

The meeting agreed on the liaison statement to ETSI as provided in **Annex 20 / Temp 18**.

The ETSI representative, Dr Michael Sharpe, highlighted the need for the members of ECC delegations to also contribute to the ETSI work.

WG FM and SRD/MG may also further consider an action plan, similar to the one as proposed in Annex 1 to doc. ECC(17)114, until the next ECC meeting in March 2018.

## Guidance letter to CEPT on the 7th update of the SRD Decision

The WG FM chairman provided an update regarding the 7th update of the EC Decision on SRD. Elements for the 7th update of the EC Decision on SRD were already identified in CEPT Report 59.

The [guidance letter](https://cept.org/Documents/wg-fm/39476/fm-18-004_guidance-letter-to-cept-on-7th-update-of-ec-decision-on-srd) for the 7th update cycle was endorsed by the RSC meeting in October 2017 (after the WG FM meeting) and was submitted to CEPT. WG FM and SRD/MG will immediately start with the related work. See also agenda item 8.15.

# Decisions on ECC Decisions in progress, newly proposed or under review and other issues from the subordinate bodies

## Update on Final Approval of draft amended ECC Decision (15)05 on the harmonised frequency range 446.0-446.2 MHz, technical characteristics, exemption from individual licensing and free carriage and use of analogue and digital PMR 446 applications based on the results of the public consultation

The WG FM chairman informed the ECC meeting about the discussions at the WGFM#89 meeting (ECC(17)084 - sec. 1.9).

WG FM had decided to wait with the final approval of ECC Decision (15)05 on PMR446 for one meeting cycle as requested by ETSI (because the new harmonised standard EN 303 405 had not been listed in the OJEU) with the understanding that the proposed changes in the ECC Decision are considered as adopted and will not be re-discussed at the next WG FM meeting. Taking into account the results of the public consultation, the content of the draft revised ECC Decision had been considered as stable.

The ECC endorsed this way forward.

The ECC noted the decision of WG FM not to increase the power limit for PMR 446 in the regulation.

During the discussion it was emphasised that the current problem regarding the ECC Decision (15)05 on PMR446, caused by the fact that the specific harmonised standard for PMR 446 had not been cited in the OJEU, is only one example. There are similar cases with regard to other radio applications.

The WG FM chairman informed the meeting that the new harmonised standard EN 303 405 is also relevant for achieving more robust receiver capabilities.

## Update on Final Approval of draft new ECC Decision (17)EE on harmonised prefixes and short codes in national numbering plans based on the results of the public consultation

ECO presented in document ECC(17)109 the results of the public consultation on draft ECC Decision 17(EE). One response has been received and has been considered at the recent meeting of NaN PT FNI. The revised version of the draft Decision(17)EE will be further considered at the coming WG NaN meeting, 21-23 November 2017 and is expected to be considered at the 47th ECC Plenary in February 2018 for approval for publication.

## Final approval of the ECC Report 269 on “Least restrictive technical conditions for Mobile/Fixed Communications Networks in 1427-1452 MHz and 1492-1518 MHz” based on the results of the Public Consultation

The ECC PT1 Chairman presented ECC(17)087 Annex 7. This version followed the review of public consultation comments. The resolution table was provided in ECC(17)087 Annex 8. This ECC Report was discussed alongside draft ECC Decision (17)06 and draft CEPT Report 65.

This ECC Report provides the technical analysis in support of the technical conditions in the new ECC Decision (17)06.

The meeting approved ECC Report 269 on “Least restrictive technical conditions for Mobile/Fixed Communications Networks in 1 427-1 452 MHz and 1 492-1 518 MHz” for publication. This can be found in **Annex 04 / Temp 02**.

## 3.4-3.8 GHz:

• defragmentation

The meeting noted the demand of inputs into ECC PT1 on this matter. The Steering Group had emphasised the importance of ECC Report on defragmentation and also indicated that it should include an analysis of the possibilities for synchronisation between LTE and 5G NR, and any technical implications.

The meeting concluded that ECC/PT1 should develop this report on defragmentation as a technical toolbox. ECC/PT1 will need to remain cautious in regard to possible proposals outside the competence of CEPT, e.g. related to competition issues.

The Russian Federation stressed that cross-border coordination agreements should be taken into account when developing defragmentation guidance, since existing agreements may impact on the possibility of defragmentation.

The Commission encouraged the ECC to give concrete guidance and to clarify in the ECC Report the objectives that administrations should aim to achieve at technical level by this defragmentation.

• revision ECC Decision (11) 06

The ECC PT1 Chairman reported that ECC PT1 is currently documenting all of its technical analysis on the suitability of the current technical conditions in ECC Decision (11)06 to 5G. ECC PT1 is examining the implications of moving from e.i.r.p. to Total Radiated Power (TRP) for out-of-block emission limits from antenna array systems. This reflects the way that away from the wanted channel the correlation between the antenna elements does not apply and so emissions directivity is assumed to be similar to the one of a single element gain. However, ECC PT1 needs to confirm whether there is any additional impact on adjacent band systems.

The material is in a working document based on the ECC Report template. The meeting confirmed that the deliverable for this work item is an ECC Report. The work item description was modified accordingly.

The meeting considered the option for revision of ECC Decision (11)06 or development of a new ECC Decision and concluded that ECC PT1 should develop a revision of ECC Decision (11)06. The corresponding work item in Annex [Temp 24] was approved with a large number of supporting administrations.

*Statement from the Russian Federation*

*The Russian Federation would like to stress that development of new ECC Decision with the view to harmonise frequency band 3400-3800 MHz for IMT-2020 (5G) deployment in CEPT countries contradicts to and violates of ITU-R Radio regulation as the band 3600-3800 MHz in accordance with this regulations was not identified for the IMT deployment in any of CEPT countries. For this reason the Russian Federation object to the development of new ECC Decision. Moreover mobile service has secondary status in the frequency band 3600-3800 MHz in CEPT countries and as a result any IMT deployment in the band 3400-3800 MHz in CEPT countries based on this new ECC Decision should not affect FSS (s-E) which has primary status and used in the Russian Federation.*

• ECC Decision (07)02

WG FM had agreed, following previous correspondence with ECC/PT1 and following a review, that ECC/DEC/(07)02 (ECC Decision on availability of frequency bands between 3400 - 3800 MHz for the harmonised implementation of Broadband Wireless Access systems (BWA)) which addresses the same bands as ECC Decision (11)06, could be withdrawn.

The ECC endorsed the proposed withdrawal. The ECO will provide a draft ECC Decision on the withdrawal of ECC Decision (07)02 for the next WG FM meeting in February 2018. The WG FM chairman referred to the fact that there may be a need for WG SE to consider a possible impact on ECC Recommendation (04)05 (on guidelines for accommodation and assignment of multipoint fixed wireless systems in frequency bands 3.4 - 3.6 GHz and 3.6 - 3.8 GHz), which is referenced in ECC Decision (07)02.

## 26 GHz fixed links and 5G

Following the addition of a new task in the 5G roadmap to develop a toolbox for national administrations to manage the coexistence of 5G and fixed services, the ECC PT1 Chairman provided a new Work Item which was agreed by the meeting as contained in **Annex 21 / Temp 26**.

## CEPT roadmap on 5G

ECO presented in document ECC(17)080Annex3 the revised version agreed by the Steering Group of the CEPT roadmap on 5G. This version includes a change of the roadmap as proposed by ECC/PT1.

The Netherlands introduced document ECC(17)108, a multi-country proposal aiming at revising the actions B1 to B4 related to WRC-19 in order to reflect the progress of the studies and other considerations regarding priorities for studying future 5G bands in Europe.

The document emphasized in particular that all technical studies in TG5/1 have shown the incompatibility between IMT and radionavigation service in the 32 GHz band and industry did not show support to this frequency band for IMT.

The proposal (ie, modifying the bands for priority studies by deleting 32 GHz and adding 66-71 GHz)was endorsed by the meeting.

In addition, ECC agreed to include a new action A3.2 on the development of a toolbox supporting introduction of 5G in 26 GHz with FS in operation.

With regard to item D.4 of the Roadmap (60 GHz band) Switzerland asked for clarification of the current activities in relation with ITS in this range. It was stressed that there are some considerations on modifying the ITS designation in 63-64 GHz band and that CEPT needs to be careful with the messages which are given to the outside world at a time when CPM report is being completed. The WG FM chairman explained that the activities regarding the band 57 - 66 GHz are ongoing within SRD/MG and SE19 and the target is to finalise a regulatory approach in the second half of 2018. This band overlaps with the 63 GHz ITS band, therefore also ECC Decision (09)01 will be considered. Dr Michael Sharpe, as ETSI representative, informed the meeting about the recently-adopted Work Item for the System Reference document (SRdoc), TR 103 583 on “Technical characteristics of multiple gigabit wireless systems (MGWS) in radio spectrum between 57 GHz and 71 GHz”, which updates and replaces TR 102 555 (2007) and TR 102 400 (2006). The ECC Chairman also mentioned considerations on having communication channels in the SRR bands, so as to reuse the same antennas and components in a car. The meeting decided to soften the reference to the ITS frequency band.

As a result, ECC approved the revised version of the CEPT Roadmap for 5G as contained in **Annex 22 / Temp 16).**

## WI MES above 1518 MHz + Letter from ICAO

The United Kingdom presented ECC(17)111 which proposed to revise the Work Item on potential blocking of MSS terminals. The intention was to indicate that studies could consider locations on approaches to ports. France presented ECC(17)INFO 9, which considered the situation in the United States where part of the L-band MSS spectrum is used for a terrestrial network and noted that the studies under this work item could benefit from understanding what solutions had been applied to deal with coexistence between the terrestrial network and MSS in that country.

The meeting did not conclude on any changes to the Work Item at this stage.

The meeting agreed that ECC PT1 should clarify the situation in response to inputs from the UK and France: what solutions are in place in other parts of the world to deal with coexistence between L-band MSS operations and mobile networks in certain areas, and whether administrations have specific MES operational requirements, e.g. regarding inland waterways.

|  |
| --- |
| ECC PT1 is tasked to clarify the situation in other parts of the world regarding coexistence between L-band MSS operations and mobile in certain areas networks and to also clarify any specific MES operational requirements of administrations e.g. regarding inland waterways, and report back to the next ECC meeting. |

The meeting decided that there was no need at this meeting to respond to ICAO. This might be reconsidered at the next ECC meeting.

## WiMAX in 900/1 800 MHz

The meeting considered that although there is no known WiMAX development in this frequency band, there is a need for administrations and stakeholders to carefully consider the impact of withdrawing WiMax from the list of technologies in these 2 frequency bands. Therefore, ECC developed a cover note (**Annex 10 / Temp 14**) to highlight the need for comments on whether there is a need to continue to include WiMAX in ECC Decision (06)13, as part of the public consultation on the draft revision of that Decision.

The meeting agreed to include the same request in the cover for the PC on draft CEPT Report in response to the EC mandate on IoT in the 900 MHz and 1800 MHz bands (**Annex 18 / Temp 17 Bis**).

## GSM-R and future of railways

The WG FM chairman informed the ECC meeting about the current status of work. FM56 had held two meetings so far. The latest version of draft ECC “Report A” on spectrum needs for future railway communication had been presented at the WG FM meeting. WG FM had also noted the liaison statements between CPG PTD and FM56 related to WRC-19 AI 1.11. The next meeting of FM56 will be from 4 - 5 December 2017.

The ECC chairman introduced document ECC(17)100 which had been submitted by the ECC SG.

It was decided during the RSC#61 meeting in October 2017 that Germany would provide three questions related to railway issues, which then would be distributed to the other member states by the European Commission. The responses and comments from the member states will be discussed at the RSC#62 meeting from 6 - 7 December 2017. During the latest ECC-EC meeting, the ECC proposed to give the opportunity to the FM56 meeting from 4 - 5 December to provide support with regard to these questions.

There were controversial discussions during the ECC meeting on the way forward with regard to doc. ECC(17)100. Some administrations, e.g. France, supported to task FM56 to consider the questions and to provide a response to the RSC meeting already in December. Other administrations, e.g. Germany and Switzerland, did not agree to this and emphasised that CEPT contributions to the European Commission should be submitted via the working group and plenary levels.

Germany highlighted that doc. ECC(17)100 was not submitted to the ECC by Germany and there was no intention to discuss this RSC follow-up issue at CEPT level. Also, it should have been taken into account that no Mandate exists with regard to railway issues.

Switzerland had a similar view as Germany and highlighted that, although the planned new Commission Implementing Decision on SRDs and RFIDs in parts of the ranges 870 - 876 MHz and 915 - 921 MHz would not be mandatory in its country, Switzerland would be affected by the implementation of this Decision in neighbouring countries.

France stressed that the technical expertise on these questions is in FM56 and, since some administrations are considering that responses are necessary before RSC can conclude on the SRD harmonisation decision, the proposal from the ECC-EC and ECC SG meetings to send them to FM56 is the most efficient solution and would avoid undue procedural delays.

From Portugal’s point of view this issue regarding the questions from Germany, which had been required by the European Commission, is mainly an RSC matter and based on the RSC#61 follow-up activities.

Finally the meeting decided that:

* The EC may wish to consider, taking into account the responses from MS to the RSC activities in relation with the possible adoption of the EC decision on SRD in the 800/900 MHz band, a list of technical questions relevant to the FM56 work item.
* FM56 will consider these questions at its December and January meetings and will provide the outcome to the WGFM meeting in February. WGFM will then report to ECC. FM56 and WGFM will also address other considerations if raised by administrations.
* ECC will therefore be responsible for sending the responses to the EC at its March meeting.

## Spectrum for drones

The WG FM chairman introduced the latest activities related to spectrum for drones (ECC(17)084 - sec. 1.12).

The outcome of the public consultation of draft ECC Report 268 had been considered by WG FM. WG FM had also been informed that the EASA public consultation (NPA 2017-05 (A)) for the new regulatory approach for UAS in the European Union had been extended to the deadline on 15 September 2017. The results of this consultation were unknown for WG FM, and hence, the application of the RE Directive for UAS was not clear. Therefore, WG FM had decided to wait with the final approval of draft ECC Report 268 until this aspect would be clarified.

Regarding the liaison statement from WG FM to ECC PT1, the ECC PT1 chairman informed the ECC meeting that the possibility to use MFCN for UAS operations will be discussed at the next PT1 meeting in December 2017.

ETSI informed the meeting that with regard to the applicability of the RE Directive and the EASA regulation this is not only related to drones, but also e.g. to wingtip radars, radars for helicopters, etc.

During the discussion also other aspects related to drones were highlighted, e.g. drone detection and jammers.

The ECC SG suggested that a specific workshop on spectrum for drones may be appropriate. Such a workshop could also be supportive with regard to the considerations of frequency bands to be used for drones (ECC(17)080). Additional contributions from stakeholders to the WG FM CG would be needed to finalise the considerations on the frequency bands.

ECC tasked WG FM together with the Office to start organising a dedicated workshop on spectrum issues related to drones. It is foreseen that the workshop would be held mid-2018 in Copenhagen.

## PMSE (Video and Audio)

WG SE had tasked SE7 to study the possible use of low power audio PMSE (excluding airborne use) in the aeronautical frequency band 960 – 1164 MHz. The deadline is May 2019. SE7 had scheduled dedicated meetings to take into account the great interest of the concerned parties in this controversial topic.

With regard to low power audio PMSE in the band 960 - 1164 MHz WG FM had agreed on guidance to FM51 (ECC(17)084 - sec. 1.13). The internal report from FM51 to WG FM should be completed until May 2018.

WG FM had received a liaison statement from ETSI informing about a new SRdoc TR 103 450 on ‘Technical characteristics and parameters for Wireless Multichannel Audio Systems (WMAS)’.

It was explained that these systems comply with the provisions currently included in ERC Recommendations 70-03 and 25-10, however some CEPT administrations limit the bandwidth to 200 kHz or may have other restrictions in their national radio interface.

It had been concluded by WG FM that, as a first step, it should be investigated and confirmed whether the existing ERC Recommendations 70-03 and 25-10 can be used by these wide band WMAS systems.

## PMR /PAMR and Review of ECC Decisions (04)06 and (06)06

The WG SE chairman informed on the progress of the technical studies related to “Broadband PMR/PAMR and NB-IoT sharing and compatibility studies in the bands 410-430 and 450-470 MHz” and “Complementary compatibility and sharing studies for BB-PPDR systems operating in the frequency band 410-430 MHz”. Whereas the BB-PPDR studies are well advanced, further work is required for PMR/PAMR following the request of ECC (45th ECC meeting) to extend the scope of the studies to include LPWAN systems to comply with the technology neutrality principle. The draft ECC Report is expected to be submitted for adoption for public consultation in January 2018.

WG FM had planned to finalise the draft new ECC Decision, which will replace ECC Decisions (04)06 and (06)06, and to approve it for public consultation together with the draft new ECC Report (400 MHz PMR/PAMR frequencies) and the draft revised version of T/R 25-08 during its meeting in May 2018, if WG SE provides stable results (approved for public consultation) on the relevant compatibility and sharing studies until the WG FM meeting in February 2018.

Regarding the planned withdrawal of ECC Decision (11)04, see agenda item 8.13.

## Review of ECC/ERC/ECTRA Decision:

• **ECC Decisions on satellite earth stations (after ECC Report 66)**

WG SE had adopted draft ECC Report 272 on “Earth stations in the frequency ranges 4-6 GHz, 12-18 GHz and 18-40 GHz in the vicinity of aircraft” for public consultation. This Report will supersede ECC Report 66, which was approved in 2005. The new Report contains a set of e.i.r.p. limits for earth stations, which comply with HIRF levels established by EASA to protect aircraft systems. WG FM had decided that, based on the new ECC Report 272, FM44 should revise the related ECC Decisions dealing with satellite terminals as appropriate. This way forward was endorsed by the ECC.

• **Withdrawal of ECC Decision (15)02 on DA2GC**

The need for ECC Decisions (15)02 and (15)03 on Broadband DA2GC had been discussed during the latest WG FM meeting. The ECC#45 meeting had tasked WG FM to have a look especially at ECC Decision (15)02. WG FM had concluded that, also by considering the information provided in the latest ECO Bulletin, there seemed to be a case to retain the ECC Decision (15)03 on Broadband DA2GC in the 5855 - 5875 MHz band for the time being. For ECC Decision (15)02 on Broadband DA2GC in 1900 - 1920 MHz WG FM proposed the withdrawal to the ECC. The band 1900 - 1920 MHz is also under discussion with regard to other radio applications. The ECC endorsed the withdrawal of ECC Decision (15)02. The ECO will provide a draft ECC Decision on the withdrawal for the next meeting of WG FM.

Michael Sharpe (ETSI) reminded the meeting that ETSI had forwarded the SRDoc TR 103 149 proposing that this band should be used for DECT, extending the existing use of the band 1880 to 1900 MHz.

• **Withdrawal of ERC Decision (01)08 on harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Movement Detection and Alert operating in the frequency band 2400 - 2483.5 MHz**

WG FM had decided to withdraw ERC/DEC/(01)08 for 2.4 GHz movement detectors (also covered by ERC/REC 70-03 - Annex 6 and the EC Decision for SRD, and implemented nearly throughout the CEPT). The ECC endorsed the withdrawal of ERC/DEC/(01)08. The ECO will provide a draft ECC Decision on the withdrawal for the next meeting of WG FM.

* **Withdrawal of ECC Decision (11)04 (PMR/PAMR/PPDR terminals)**

The WG FM chairman informed the ECC meeting that WG FM and FM54 are looking for information from external bodies and relevant stakeholders about the possible withdrawal of ECC/DEC/(11)04 (“Exemption from individual licensing of digital terminals of narrowband and wideband PMR/PAMR/PPDR systems and free circulation and use of digital terminals of narrowband and wideband PPDR systems operating in the 80 MHz, 160 MHz, 380-470 MHz and 800/900 MHz bands”). This will be further discussed by WG FM in February 2018. It is intended to draft a Decision for the withdrawal of ECC/DEC/(11)04 with the aim to send it out for public consultation by WG FM in May 2018. The ECC endorsed this way forward.

Also by taking into account the conclusions as described above the ECC endorsed the updated list on the review of ECC/ERC/ECTRA Decisions as provided in **Annex 23 / Temp 23**.

## Interference from 5 GHz RLAN to meteorological radars

WG FM had discussed the outcome of the responses to the questionnaire based on the summary from the ECO and the conclusions from FM22. WG FM had also decided to send a liaison statement to ADCO/RED. ADCO/RED was invited to conduct a new market surveillance campaign for 5 GHz RLANs, considering various types of equipment, including a focus on equipment used for fixed outdoor installations. ADCO/RED already had a meeting after the WG FM meeting in October and the response was provided in document ECC(17)116, which was also sent to WG FM, FM22 and to the ECO.

The WG FM chairman introduced the analysis of WG FM (ECC(17)084 - Annex 08), which had also been submitted to the Joint RSC/TCAM meeting on 19 October 2017, and the response from ADCO/RED.

ETSI (Mr Georges de Brito) informed the meeting that ETSI has developed a couple of template report form, one of which is TR 102 741, and DFS is mentioned in this TR. It may provide useful information on the features implemented in specific equipment.

As instructed by the ECC Steering Group, ECO presented in document ECC(17)101 an overview of the activities carried out in response to the actions identified by ECC in March 2017 to address the the issue of interference from 5 GHz WAS/RLAN to meteorological radars.

ECC also considered the Liaison statement from ADCO RED (ECC(17)101) and the meeting expressed its support to the proposed course of actions from ADCO RED.

On the basis of the discussion, ECC identified the need to revise the ECC action plan. Specifically, ECC participants were invited to request their national authorities responsible for interference management in order to collect appropriate information on the equipment which caused interference. The need for additional activities within FM22 was also emphasised.

The meeting discussed national solutions for implementing the “name and blame” action. Germany explained that a database has been made publicly available in order to provide information on non-compliant radio equipment, including 5 GHz RLANs.

<https://www.bundesnetzagentur.de/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Technik/InverkehrbringenvonProdukten/EuropaeischeVertriebsverbote/EuVertriebsverbote.html?nn=719186>

Hungary also explained that it has made publicly available similar database:

<http://emirpub-prod.nmhh.hu/pubrendszer-web/berendezes-piacfelugyelet/vizsgaltBerendezesList.jhtml#?kategoria=165&gyarto=&orderBy=&order=1>

All administrations are invited to provide detailed information on such action, including the legal basis when relevant. Information are also welcomed on any national initiatives regarding communication/awareness action.

The WG FM chairman informed the meeting that FM22 will initiate the relevant activities immediately after the ECC meeting by using electronic means; the next physical FM22 meeting is scheduled for April 2018.

As a result, ECC agreed the revised list of actions as available in **Annex 24 / Temp 25 Rev2.**

ECC also agreed a response to the ADCO RED liaison statement as available in **Annex 25 / Temp 21.**

## Smart tachograph, weight and dimension applications

The WG FM chairman informed the ECC meeting that during the latest WG FM meeting the ETSI Liaison Officer had informed the meeting that already in early 2016, ETSI had approved a new work item to develop an SRdoc for both Smart Tachograph and Weight and Dimension applications (TR 103 441) in 5 GHz. But the work had never started as the person that initially proposed to be the rapporteur could not take the role. Finally, a new rapporteur had presented himself (Mr Dieter Smely from Kapsch) and the work would start within ERM TG37

## Feasibility study on RLAN in 6 GHz

The WG SE reported about the progress of the compatibility and sharing studies with WAS/RLANs in the frequency range 5925 – 6425 MHz, which were carried out by SE24. The primary goal is to protect FS and FSS. There was discussion about the additional consideration of other systems inside or outside of the band and whether Urban Rail systems (such as Communication-Based Train Control (CBTC)) should be considered as a national matter. WG FM had been invited by WG SE to provide guide and confirmed that CBTC should be taken into account in the studies.

WG SE had reconsidered the organisation of the work and decided to create a new PT SE45 which will continue these studies. The chairman is Dr Ivica Stevanovic (OFCOM, CH). The Work Item is transferred from SE24 to SE45. WG FM had been informed about the change of the responsibility.

WG FM had also created a new PT, which is FM57. The chairman is Mr Stephen Talbot (Ofcom UK). The relevant work item now is FM57\_01 (former FM\_52).

SE45 and FM57 will co-operate closely, e.g. by having subsequent meetings at the same place.

The ECC chairman emphasised that firstly the feasibility study should be carried out, as agreed at the ECC meeting in March 2017, then it could be decided how to proceed.

It was noted that a new System Reference document (SRdoc, TR 103 524) is under development within ETSI and a draft Mandate is under discussion in the Radio Spectrum Committee (RSC). The ETSI representative, Dr Michael Sharpe, informed the meeting that the work item to draft the SRdoc had been modified at the recent meeting of TC ERM to address the frequency band 5925 - 6725 MHz. The Counsellor of the European Commission, Mr Andreas Geiss, informed the meeting that it is planned to approve the Mandate at the next RSC meeting in December 2017.

## Review of ERC Recommendation 74-01

The WG SE informed that SE21 has started the review of the ERC Rec 74-01 (Unwanted emissions in the spurious domain).

Active Antenna Systems (AAS) for beamforming and MIMO are important features in the future 5G systems. ECC noted that intensive exchanges of the technical concept and characteristics are ongoing within ECC PT1 and SE21 but also with ETSI and 3GPP, in particular about the concept of total radiated power (TRP) used for integral antennas and related limits for the unwanted emissions.

The limits of the spurious emissions are determined by conducted measurements at an antenna connector. However, such measurements are not possible for AAS because the active element is integrated in the antenna.

ECC notes further the discussion about the limits of the unwanted emissions in the spurious domain from 5G systems (IMT-2020) which is currently ongoing in ITU-R TG5/1 and WP5D. The considered limit in ITU-R WP5D is −13dBm/MHz, which deviates 17 dB from the generic limit defined in ERC Recommendation 74-01: -30dBm/MHz for all frequencies above 1 GHz.

GSA representative informed that some more stringent unwanted emission limits are under study for protecting specific services (eg, EESS at 24 GHz or radars below 3.4 GHz). However, administrations also expressed concerns that a significant relaxation of generic spurious limits for 5G systems could result into harmful interference to other systems.

During the discussion, it appeared that there is an urgent need for ETSI and CEPT to cooperate in order to avoid a situation where harmonised standard using the 3GPP specifications would not comply with the CEPT regulation on the generic limits for unwanted emission in the spurious domain, as provided in ERC Rec 74-01. ETSI should consider the existing European limits and contribute to the work of SE21 in order to assess the need and the impact of any relaxation of generic spurious emission limits.

The meeting agreed on the liaison statement to ETSI as provided in **Annex 26 / Temp 22**

## Update of ERC Report 25 (ECA Table)

The WG FM chairman informed the ECC meeting that WG FM had provided some guidance to the EFIS/MG regarding the update process of ERC Report 25 (ECA Table); see section 3.8.3 in doc. ECC(17)084. The revised ERC Report 25 (ECA Table) was approved by WGFM#89 for publication. Publication by the ECO will take place after the ECC#46 meeting in November 2017. Deliverables planned for final approval at the ECC#46 meeting had already been taken into account by WG FM.

## New ECC Decision(s) on frequencies for the utilisation of VDES

WG FM agreed to the proposal from the FM Maritime Forum Group (MAR FG) to develop two new ECC Decisions for the ‘Harmonised usage of frequencies in the VHF maritime mobile band for vessels’ and on ‘The use of the VHF Data Exchange System (VDES) terrestrial component’. Alternatively only one new ECC Decision covering all related items could be developed. With the new task the Work Item FG\_08 is wider than originally proposed.

The ECC meeting endorsed the development of these two new ECC Decisions or - alternatively - one single ECC Decision and the amendment of the work item.

The WG FM chairman informed the ECC meeting that the MAR FG would have two physical meetings in 2018 to progress the related work.

# Work Programme of the ECC and its subordinated bodies

With regard to new and amended work items within the scope of WG FM, the WG FM chairman referred to section 1.21 of the WG FM progress report (ECC(17)084).

With regard to new and amended work items within the scope of WG SE, the WG SE chairman referred to section 5 of the WG SE progress report (ECC(17)085).

With regard to new and amended work items within the scope of ECC/PT1, the ECC/PT1 chairman referred to annex 15 of the ECC/PT1 progress report (ECC(17)087).

For new or revised work items see the relevant sections above.

# Matters related to European Communications Office, ECO

## ECC Communication

The ECC noted the update on the last edition of the ECC newsletter published in September 2017 and the proposal for the next release of the newsletter with two articles: spectrum for M2M/IoT and update on frequency information covering EFIS and the new DocDb scheduled for November/December 2017.

ECC participants were invited to suggest proposals for articles for the 2018 editions of the ECC newsletter.

Furthermore the ECC noted the information on the recent workshops organised by ECO and informed about the scheduled workshops/trainings sessions planned for 2018 (see document ECC(17)102).

## Other matters on ECO support to ECC

The ECO presented in document ECC(17)103 an overview of the ECO activities in support of ECC with an emphasis on the following points:

* ECO thanked all the ECC participants who responded to the survey on the CEPT portal. The responses to the survey were generally very positive and constructive. The range of comments, observations and suggestions provided a good basis for the further improvements of the portal, in particular on the meeting documents area.
* ECO reminded that the new Documentation Database has been available live for testing since the end of May at: <http://test.ecodocdb.dk/docdb/>. It will replace the current official version of [ECO DocDB](http://www.ecodocdb.dk/) in January 2018.
* The good cooperation with ECC PT1 was highlighted for the implementation of 5G systems into SEAMCAT.
* ECO informed that, as the result of feedback received in particular during the recent EFIS workshop, it is planned to develop in 2018 a new application programming interface (API), which would facilitate the future use and developments of the existing databases (in particular EFIS and Doc DB).

# Remaining issues from the CPG, WG FM, WG SE, WG NaN, ECC PT1

**CPG**

Mr Thomas Ewers introduced, on behalf of the Chairman of CPG, doc ECC(17)083 which contained the progress report of CPG since ECC#45. The meeting noted the progress regarding the preparatory activities towards WRC-19. Specific attention was given to the information on the current procedure within ITU regarding the venue of RA-19 and WRC-19 as the administration of Egypt provided a formal invitation taking full account of the fact that CEPTs preparation of the Council is within the remit of ComITU.

The meeting noted the current vacancy of the position of a Vice-Chairman of CPG due to the change of Mr Alexandre Vallet from ANFR to ITU. CPG provided its sincere thanks to Mr Vallet for all his tremendous efforts to the preparation of many WRC´s.

The next meeting of CPG (CPG19-5) will be held from 8-11 January 2018 in Budapest, Hungary.

ECC administrations were informed that CPG still needs hosting offers for the tentative meetings in 2018 (Autumn) and 2019.

**WG FM:**

The WG FM chairman referred to part 2 of the WG FM progress report (ECC(17)084). He introduced the following items:

LS (response) from WG FM to ITU-R WP 5A on the revision of Recommendation ITU-R M.2015-1 with proposed amendments on the draft revised Recommendation ITU-R M.2015-1 on frequency arrangements for public protection and disaster relief radiocommunication systems in accordance with Resolution 646 (Rev.WRC-15).

Input to ITU-R WP 1A, CEPT contribution on PMR/PAMR issues to Report ITU-R SM.2351-2; submitted by the United Kingdom (Ofcom) on behalf of CEPT.

Presentation by the WG FM Chairman at the General Conference of IARU-R1 in September 2017 in Landshut (Germany), opening plenary on Sunday, 17 September 2017; see <https://cept.org/ecc/deliverables/ecc-presentation-page> ; 142 individual papers were submitted for consideration at the Conference. There were 53 countries represented and in total 130 people were present. The Conference is triennial and the venue was a banking training college on the edge of the town of Landshut.

Presentation by the WG FM Chairman at the Wi-Fi Alliance meeting, Bucharest (Romania), 25 October 2017; see <https://cept.org/ecc/deliverables/ecc-presentation-page>

During the Wi-Fi Alliance meeting there was great interest in Work Item FM57\_01 (former WI FM\_52).

WG FM approved a reply liaison statement to ECC PT1, related to draft CEPT Brief on issue 9.1.8 (Narrowband and broadband machine-type communication infrastructures), by taking into account proposals from FM44, FM54 and SRD/MG.

WG FM, based on the SRD/MG output, agreed that WPT non-beam applications should be included in ERC/REC 70-03. WPT non-beam applications are considered as radio applications within ERC/REC 70-03, either in a separate new Annex or in Annex 9 (inductive applications) to ERC/REC 70-03.

WG FM has to appoint a new Vice Chairman. A call for nominations was sent out after the WG FM meeting in October 2017. CEPT members are invited to consider submitting a candidate for the vacant post of the WG FM Vice Chairman. It is planned to appoint a new Vice Chairman of WG FM at the 90th WG FM meeting in February 2018.

The Chairmen of FM22, FM44, FM51, SRD/MG, EFIS/MG, RA FG, MAR FG need to be appointed / re-appointed in consequence of the changes in the ECC Rules of Procedure (RoP). Because it might be necessary for the current Chairmen / for the candidates to firstly clarify the endorsement within the relevant national administration, the appointment / re-appointment will be done at the 90th WG FM meeting in February 2018.

The next WG FM meeting will be held from 05 - 09 February 2018 in Birmingham / United Kingdom. In the year 2019 only two WG FM meetings are planned because of the WRC-19, overlapping with the CPM meeting in 2019 should be avoided. Administrations are invited to host future WG FM meetings in the years 2019 and 2020.

**WG SE**

The WG SE Chairman reported briefly about the remaining issues from WG SE contained in ECC(17)085. He highlighted the following points:

* WG SE adopted one ECC Report for publication:
* ECC Report 267: Coexistence of Wideband Ultra-Low Power Wireless Medical Capsule Endoscopy Application operating in the frequency band 430-440 MHz
* WG SE adopted three Draft ECC Reports for public consultation:
* Draft ECC Report 270: Sharing studies between Telecoil Replacement Systems (TRS) and MSS in the frequency range 1656.5-1660.5 MHz
* Draft ECC Report 271: Compatibility and sharing studies on NGSO ESOMPs operating in the 14 - 14.5 GHz FSS (Earth-to-space) and 10.7-12.75 GHz (space-to-Earth) allocations
* Draft ECC Report 272: Earth stations in the frequency ranges 4-6 GHz, 12-18 GHz and 18-40 GHz in the vicinity of aircraft
* SE19 is preparing a revision of the ECC Report 173 on Fixed Service in Europe - Current use and future trends post 2016, which is based on a Questionnaire which was issued about 2 years ago. The revision of the Report is expected for adoption for public consultation in January 2018.
* SE24 is performing supplementary studies on NBN SRDs operating in the band 915-921 MHz, in particular on the first RFID interrogator channels at 916.3 MHz. The studies are not restricted to narrowband systems but also open for LPWAN, when a SRdoc is available. For LPWAN-CSS, a SRdoc is currently developed by ETSI TC ERM TG28.
* SE40 was informed that measurements of 8 Iridium NEXT satellites were carried out in July by Leeheim station through SatMoU funding. The results have not yet been available at the previous SE40 meeting. It is expected that a summary and results of the measurements could be considered by WG SE in January 2018.
* WG SE agreed on a new Work Item for SE19 on 57-66 GHz. It is addressed the feasibility of establishing a common set of technical conditions under which fixed service applications (e.g. backhauling) and other outdoor envisaged uses/applications (e.g. SRDs (WiGig) and ITS) may coexist within this frequency range. (see also CEPT Roadmap for 5G, item D.4)
* WG SE organisation
* Creation of a new PT SE45, chaired by Dr Ivica Stevanovic (OFCOM, CH)
* Re-appointment of the SE7 chairman for a new term: Mr Petteri Jokela, FICORA, Finland
* Re-appointment of the SE21 chairperson for a new term: Ms Meta Pavšek Taškov, AKOS, Slovenia

**WG NaN**

On behalf of the WG NaN Chairman (Mr. Johannes Vallesverd) the Vice-Chairman (Mr. Florin Dragomir) informed the assembly on the WG NaN related activities since the previous ECC Plenary meeting (document ECC(17)086).

WG NaN has not met since June 2017. Its next (15th) meeting is scheduled for 21-23 November 2017, in Bucharest, Romania, at the kind invitation of the National Authority for Management and Regulation in Communications of Romania (ANCOM).

The next meeting’s agenda includes items for approval:

• Draft ECC Decision (17)EE – Harmonised prefixes and short codes in National Numbering Plans,

• Draft ECC Recommendation (17)04 – Numbering for eCall,

as well as items for adoption for public consultation:

• Draft ECC Report on the role of E.164 numbers in international fraud and misuse of electronic communications services,

• Draft ECC Report on E.164 Numbering and Over-The-Top (OTT) Services,

• Draft ECC Report on Regulatory Analysis of Over-The-Air Provisioning of E.212 and E.118 Resources.

The WG NaN Vice-Chairman also highlighted the main activities happened since the previous meeting, the WG NaN SFG, the joint ETSI EMTEL - PT ES workshop and the communications with EC and CFCA on specific numbering related issues. Main activities developed inside its PT’s were also highlighted.

**ECC PT1**

Review of ECC Decision (06)01

The meeting noted that ECC PT1 will consider in December whether there is a need to revise ECC Decision (06)01. The Netherlands indicated that it had raised a point in RSCOM about the technical conditions in the EC Decision which are specified as per-antenna limits, applicable up to 4 antennas per sector. There is a need to consider updating the requirement to take account of massive MIMO deployments.

In addition, the WG SE Chairman raised the question of whether there is any need to review the technical conditions in Dec (06)01, bearing in mind the adjacency to MSS and the discussion on unwanted emissions of AAS.

Cross-border coordination of MFCN systems with aeronautical telemetry systems

ECC PT1 had requested guidance on the appropriate deliverable for the work on bilateral agreements for coordination between MFCN and ATS in L-band: The meeting indicated that ECC PT1 should develop a working document to share information on progress of bilateral negotiations. The work on the coordination framework in preparation for WRC-15 Agenda item 1.2 was recalled. If it becomes apparent that there is a lack of progress, then ECC PT1 can look at what deliverables could provide further assistance or advice.

Other issues

The meeting noted the progress of ECC PT1 on review of ECC Recommendation (08)02 on cross-border coordination, the ongoing interaction with STG and the work towards WRC-19 Agenda item 1.13 and Issue 9.1.8.

# RoP and Working Methods

## Revised ECC Working Methods

ECC considered the revised version of the ECC Working Methods as agreed by the Steering Group in Annex 4 to document ECC(17)080. The purpose of the modifications is mainly to align the Working Methods with the most recent edition of the ECC Rules of Procedure.

ECC approved the revised version of the ECC Working Methods as contained **in Annex 27 / Temp 19.**

## ECC working arrangements

In the context of the update of the Working Methods, ECO reviewed the current status of the various ECC distribution lists and made some proposals to streamline the process. These proposals were endorsed by ECC.

In addition, administrations were invited to check in the Annex of document ECC(17)104 the national contacts included in ECC List A (list of Members, i.e. representatives of CEPT administrations), ECC List C (contact person within each administration) and ECC List D (contact person for questionnaires) and to report any required update to ECO.

# Contacts and co-operation with outside bodies

## Review of LoU/MoU

ECO informed about the outcome of the process of review and assessment of the existing LoU/MoUs, following the instructions from the ECC Steering Group (document ECC(17)106).

The ECC noted the outcome of the assessment of the existing LoU/MoUs and endorsed to close 4 obsolete LoU’s.

The ECC also noted the ongoing process regarding future LoUs with ESA, EUMETSAT and EUROCONTROL. The meeting was informed that the texts of the LoUs with EUROCONTROL (Info11) and ESA (Info08) were almost finalised.

The ECC Chairman informed about a proposal for a new LoU from RAIN RFID (Info10), a global alliance promoting UHF RFID. Taking into account the issues of mutual interest, ECC gave the authority to the Chairman to agree such an LoU with RAIN.

## Co-operation on RED activities (ADCO RED, RED CA, TCAM WG)

ECO introduced in document ECC(17)107 an overview of the recent activities related to the Radio Equipment Directive (RE-D) in which ECO was involved. It covers relevant activities within ADCO RED, RE-D CA and TCAM.

The activity was noted by ECC. See section 8.14 for additional information on the cooperation with ADCO RED on the topic of interference from 5 GHz RLANs into meteorological radars.

# Schedule of Meetings

The schedule of meeting for WG’s and PT for the years 2017-2018 could be found in **Annex 07**.

# Date and Place of next meetings

The following meetings of the ECC are scheduled:

|  |  |
| --- | --- |
| Date: | Country: |
| 27 February – 2 March 2018 | Lisbon, Portugal |
| 12 – 15 June 2018 | Roma, Italy |
| 23 – 26 October 2018 | [City], France |

# Any other business

 None

# Approval of the minutes of the 46th ECC meeting

The ECC approved the minutes of the 46th ECC meeting as given in Document **ECC(17)117 Rev 2**

# Closure of the meeting

The Chairman expressed his gratitude to the National Authority for Management and Regulation in Communications of Romania (ANCOM) for hosting the meeting in the beautiful city of Bucharest and for having organized a momentous social event.

He thanked one more time Mr. Bogdan Iana for his kind words of welcome and Mr. Sorinel Calinciuc our delightful host

He conveyed special thanks to Mrs. Iulia Iancu and Catalina Toma for the perfect organisation, without forgetting Mrs. Mihaela Tanos for the overall organisation.

He also expressed his special appreciation to the excellent support of ECC Vice-Chairmen Mr. Jaime Afonso and Mr. Sergey Pastukh and to the Working Group and Project Team Chairmen. He stressed the key role of the Secretary, Mr. Christian Rissone, before, during and after the meeting to facilitate the work of all ECC delegates and make the meeting successful.

At the end, he thanked the ECC participants for their contributions and their willingness to compromise. With that he wished all participants a safe trip home.

The Chairman then closed the 46th ECC meeting.