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| 44th ECC Meeting | |  | |
| Dublin, 28 February- 3 March 2017 | |  | |
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The 44th meeting of the Electronic Communications Committee (ECC) was held in the city of Dublin, Ireland, at the kind invitation of the Commission for Communications Regulation (ComReg) of Ireland.

# Opening of the meeting

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

The Chairman gave the floor to Dr Samuel Ritchie, Spectrum Advisor to the Commission, who welcomed the delegates and observers to Dublin.

Dr Ritchie states that it’s a pleasure to host this meeting in Croke Park, the third largest sports stadium in Europe with 82 000 seats, which is the home and headquarters of the Gaelic Athletic Association which covers the sports of Gaelic football and Hurling. The roots of the game of Hurling can be traced back 3 000 years and has been played on this spot for the last 133 years.

He wished for fruitful discussions and a pleasant stay in Dublin.

Mr Fournier thanked Dr Ritchie for his kind words and for the invitation in Dublin.

The meeting was attended by 74 delegates representing 30 Administrations, the European Commission, the Office and 14 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.

# Appointment of Chairmen

## Appointment of two ECC Vice Chairman

Mr Sergey Pastukh and Mr Jaime Afonso, Vice chairmen of ECC, were both candidates for a second term of duty. In the absence of any other candidate, both were elected by acclamation by the ECC plenary for their second 3 years term as ECC Vice-Chairmen. As agreed at the previous ECC meeting, the re-election of Mr. Jaime Afonso will apply retroactively to March 2016 and his second term is then due to end in March 2019.

## Appointment of ECC WG FM Chairman

Mr Thomas Weilacher, Chairman of WG FM was candidate for a second 3 years term of duty. He was elected by acclamation by the ECC plenary for his second term as ECC WG FM Chairman.

## Overview of Chairmanships

As a result of the appointments agreed, the ECC updated the overview of ECC Chairmanships proposed by ECO in document ECC(17)20 (see **Annex 04 / Temp 02**).

It was highlighted that the next position for ECC consideration will be the WG SE Chairman position (end of current term: November 2018).

# Reports on ECC and other activities

## Minutes of the 43rd Steering Group meeting

The Chairman presented the minutes of the 43rd Steering Group meeting (document ECC(17)004) drawing the attention of the meeting on several issues, including:

* A draft revision of the RoP for initial consideration by ECC, noting that the adoption could only take place at the June meeting of ECC.
* An updated draft version of the 5G Roadmap prepared by the SG for adoption by ECC.
* The need to explain in a cover note to the EC that the addendum to CEPT report 59 does not take into account future results of studies of the 873-876 MHz / 918-921 MHz band for Future Railway Mobile Communication System (FRMCS).
* The support to the way forward from WGFM on a new single decision on land mobile systems replacing those on PMR/PAMR and which would include guard bands and BEM to ensure coexistence with systems and services in adjacent bands or blocks.
* The need for WGFM to further consider the challenge of coexistence between various technologies and systems in the 5.9 GHz.
* In response to a question on the new channelling arrangements developed by WGSE in frequency bands above 92 GHz, the need for WGFM to envision all demands regarding the bands above 92 GHz, not only for the fixed service, and to examine any need to rationalize the ECA.

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

## Minutes of the ECC-ETSI meeting

The ECC Chairman introduced in document ECC(17)005, the minutes from the 20th ECC-ETSI Officials meeting held in Maisons-Alfort on 15-16 February 2017 and highlighted the main areas of interest, most of them being covered within the Agenda of this ECC meeting.

In particular, ETSI and CEPT agreed on the need for a close cooperation to ensure consistency between ETSI harmonised standards, 3GPP specifications and ECC deliverables in relevant cases.

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

The ECO introduced Document ECC(17)027, the ECO’s regular bulletin on developments outside the ECC.  Particular attention was drawn to the following issues:

* update from APT (new APT Recommendations on IMT and work on the APT strategic plan for 2018–2020);
* incentive auction process in the US;
* an overview on the spectrum situations for 5G in China, South Korea, Japan and Brazil.

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

# Draft ECC Decisions

## Final Approval of amended ECC Decision (05)09 on the free circulation and use of Earth Stations on board Vessels operating in fixed-satellite service networks in the frequency bands 5 925 – 6 425 MHz (Earth-to-space) and 3 700 – 4 200 MHz (space-to-Earth)

ECC considered the following input documents:

• ECC(17)019, draft amended ECC Decision (05)09 as sent to public consultation (ECO);

• ECC(17)007 - Section 1.1 (WG FM progress report);

• ECC(17)007 - Annex 1, draft amended ECC Decision (05)09 provided by WG FM.

The public consultation on the draft amended ECC Decision (05)09 ended on 4 January 2017 without receiving any comments. The relevant WRC-15 results were taken into account in the amended version.

WG FM proposed to finally approve and publish this amended ECC Decision as provided in Annex 1 to doc. ECC(17)007.

The ECC finally approved the amended ECC Decision (05)09 on ‘The free circulation and use of earth stations on board vessels operating in fixed-satellite service networks in the frequency bands 5 925 – 6 425 MHz (Earth-to-space) and 3 700 – 4 200 MHz (space-to-Earth)’ (**Annex 06 / Temp 03**) and tasked the Office to publish it.

There is no impact on the implementation status on the ECC website.

## **Final Approval** of amended ECC Decision (11)01 on the protection of the Earth exploration satellite service (passive) in the 1 400 – 1 427 MHz band

ECC considered the following input documents:

• ECC(17)019, draft amended ECC Decision (11)01 as sent to public consultation (ECO);

• ECC(17)007 - Section 1.2 (WG FM progress report);

• ECC(17)007 - Annex 2, draft amended ECC Decision (11)01 provided by WG FM.

The public consultation on the draft amended ECC Decision (11)01 ended on 20 December 2016 without receiving any comments. The relevant WRC-15 results were taken into account in the amended version.

WG FM proposed to finally approve and publish this amended ECC Decision as provided in Annex 2 to doc. ECC(17)007.

Based on a proposal from the Russian Federation the ECC meeting decided to reinsert footnote 3 in the table in the Annex of the ECC Decision with the following text: “WRC-15 took the decision to set-up mandatory unwanted emission limits in the band 1 400-1 427 MHz to be applied to IMT stations operating in the 1 427-1 452 MHz band.”

ECC PT1 was tasked to take that into account when the spectrum regulation for the band 1427-1452 MHz will be developed.

The ECC finally approved the amended ECC Decision (11)01 on ‘The protection of the earth exploration satellite service (passive) in the 1 400 – 1 427 MHz band’ (**Annex 07 / Temp 04**) and tasked the Office to publish it.

There is no impact on the implementation status on the ECC website. The ECO will align the ECC Decision with the up-to-date template for ECC Decisions before it will be published.

## Final approval of amended ECC Decision (06)10 on transitional arrangements for the Fixed Service and tactical radio relay systems in the bands 1 980-2 010 MHz and 2 170-2 200 MHz in order to facilitate the harmonised introduction and development of systems in the Mobile Satellite Service including those supplemented by a Complementary Ground Component

ECC considered the following input documents:

• ECC(17)019, draft amended ECC Decision (06)10 as sent to public consultation (ECO);

• ECC(17)007 - Section 1.3 (WG FM progress report);

• ECC(17)007 - Annex 3, draft amended ECC Decision (06)10 provided by WG FM.

The public consultation on the draft amended ECC Decision (06)10 ended on 4 January 2017 without receiving any comments. The Russian Federation had provided a comment after the public consultation which was considered by WG FM.

WG FM had some discussions on the need of this draft amended ECC Decision because the extent of usage of the bands 1 980 – 2 010 MHz and 2 170 – 2 200 MHz by the fixed service is not completely clear.

Therefore WG FM proposed to finally approve and publish the amended ECC Decision (06)10 as provided in Annex 3 to doc. ECC(17)007, but to carry out the next review already within two years. After the assessment of the real FS usage, it should be decided whether this Decision needs to be maintained.

During the discussion it was agreed to delete the text “which are incompatible with Mobile-Satellite Service operations within the territory of CEPT administrations” in Decides-2 of the ECC Decision.

The Russian Federation recalled that they do not see the need for this ECC Decision.

The ECC finally approved the amended ECC Decision (06)10 on ‘Transitional arrangements for the fixed service and tactical radio relay systems in the bands 1 980 – 2 010 MHz and 2 170 – 2 200 MHz in order to facilitate the harmonised introduction and development of systems in the mobile satellite service including those supplemented by a complementary ground component’ (**Annex 08 / Temp 05**) and tasked the Office to publish it.

It was decided to reset the implementation status on the ECC website.

The meeting also decided that the next review should be carried out within two years and WG FM would then determine whether this ECC Decision is anymore needed.

21 administrations indicated that they will implement this amended ECC Decision. Two administrations informed the meeting that they will not implement this ECC Decision; Portugal, because the original decision was not adopted as there was no FS usage in Portugal, and the Russian Federation, because not all the spectrum (2 x 30 MHz) is needed for MSS from Russian Federation point of view.

## **Final approval of draft ECC DEC(17)01** on the withdrawal of ECC Decision (01)01 on ‘phasing out analogue CT1 and CT1+ applications in the 900 MHz band and ECC Decision (01)02 on phasing out digital CT2 applications in the 900 MHz band’

ECC considered the following input documents:

• ECC(17)019, draft ECC Decision (17)AA as sent to public consultation (ECO);

• ECC(17)007 - Section 1.4 (WG FM progress report);

• ECC(17)007 - Annex 4, draft amended ECC Decision (17)01 provided by WG FM.

The public consultation on the draft amended ECC Decision (17)01 ended on 20 December 2016 without receiving any comments.

WG FM proposed to finally approve and publish this new ECC Decision as provided in Annex 4 to doc. ECC(17)007.

The ECC finally approved the ECC Decision (17)01 on ‘The withdrawal of ECC Decision (01)01 on phasing out analogue CT1 and CT1+ applications in the 900 MHz band and ECC Decision (01)02 on phasing out digital CT2 applications in the 900 MHz band’ (**Annex 09 / Temp 06**) and tasked the Office to publish it.

## **Final approval of draft** ECC Decision (17)02 on the withdrawal of Decision ECTRA/DEC/(97)02 on ‘Harmonisation of Authorisation Conditions and Co-ordination of Procedures in the field of Satellite Personal Communications Services (S-PCS) in Europe, operating within the bands 1 610-1 626.5 MHz, 2 483.5-2 500 MHz, 1 980-2 010 MHz and 2 170-2 200 MHz´

ECC considered the following input documents:

• ECC(17)019, draft ECC Decision (17)BB as sent to public consultation (ECO);

• ECC(17)007 - Section 1.5 (WG FM progress report);

• ECC(17)007 - Annex 5, draft amended ECC Decision (17)02 provided by WG FM.

The public consultation on the draft amended ECC Decision (17)02 ended on 20 December 2016 without receiving any comments.

The Netherlands informed the meeting that there is a reference to Decision ECTRA/DEC/(97)02 in the ECC Decision (09)02 on ‘The harmonisation of the bands 1 610-1 626.5 MHz and 2 483.5-2 500 MHz for use by systems in the Mobile-Satellite Service’.

The meeting agreed that the ECC Decision (09)02 should be editorially corrected by adding the following footnote to the reference to ECTRA/DEC/(97)02, in the Background section of ECC/DEC/(09)02: ‘ECTRA/DEC/(97)02 has been withdrawn on 3 March 2017’.

WG FM proposed to finally approve and publish this new ECC Decision as provided in Annex 5 to doc. ECC(17)007.

The ECC finally approved the ECC Decision (17)02 on ‘The withdrawal of ECTRA Decision ECTRA/DEC/(97)02 on harmonisation of authorisation conditions and co-ordination of procedures in the field of satellite personal communications services (S-PCS) in Europe, operating within the bands 1 610 – 1 626.5 MHz, 2 483.5 – 2 500 MHz, 1 980 – 2 010 MHz and 2 170 – 2 200 MHz’ (**Annex 10 / Temp 07**) and tasked the Office to publish it.

# CEPT Reports in Response to EC Mandates

## **Final Approval of the draft** Addendum to the CEPT Report 59 in response to the EC Permanent Mandate on the ”Annual update of the technical annex of the Commission Decision on the technical harmonisation of radio spectrum for use by short range devices”; Possibilities for a harmonisation approach for the bands 870-876 MHz and 915-921 MHz, also taking into account new opportunities in the band 862-868 MHz **based on the results of the Public Consultation**

ECC considered the following input documents:

* ECC(17)014, ECO Summary of the Public Consultation of the Addendum to CEPT Report 59 (ECO);
* ECC(17)007, section 1.6 on “Final approval of Addendum to CEPT Report 59 (6th SRD Update)” (WG FM);
* ECC(17)007 – Annex 6 on “Draft Addendum to CEPT Report 59” (WG FM);
* ECC(17)007 – Annex 7 on “Comments on ECC Deliverable Draft Addendum Report 59” (WG FM);
* ECC(17)009, section 1.1 on ECC Report 246 on “Wideband and Higher DC Short Range Devices in 870-875.8 MHz and 915.2-920.8 MHz (companion to ECC Report 200)” (WG SE);
* ECC(17)009, section 1.2 on ECC Report 261 on “Short Range Devices in the frequency range 862-870 MHz” (WG SE);
* ECC(17)009, section 4.1 on “NBN SRDs operating in the band 915-921 MHz” (WG SE).

Also the relevant part of the SG meeting report (ECC(17)004) was considered by the ECC meeting.

WG SE had approved the ECC Report 246 and ECC Report 261 for SRDs for publication. The ECC Report 246 complements the ECC Report 200 that addressed possibility of using the frequency bands 870-876 MHz and 915-921 MHz for various Short Range Devices (SRDs) and Radio Frequency Identification (RFID) applications. The ECC Report 261 considered the feasibility of introducing new proposed Narrowband/Wideband Networked SRD applications in the band 862-868 MHz. It is differentiated between certain applications in the band 862-868 MHz.

WG FM had requested WG SE / SE24 to perform additional studies on the possible introduction of high power (500 mW) Narrowband Networked (NBN) SRDs, including Network Relay Points (NRPs), operating in the RFID interrogator channels within the band 915-921 MHz. It is concluded that NBN can be implemented in the 915-920 MHz band, limited to RFID interrogator channels, with the exception of the first channel in order to provide necessary protection to LTE operating below 915 MHz.

The results of these studies were forwarded to WGFM to be included in the Addendum to CEPT Report 59.

The draft Addendum to the CEPT Report 59 (6th SRD update) was finalised by WG FM at its latest meeting. The outcome of the public consultation and the proposals from the SRD/MG were taken into account. The public consultation ended on 4 January 2017.

The results in WG SE / SE24 set out in ECC Reports 246 and 261 as well as on NBN SRD in the band 915-921 MHz were taken into account by SRD/MG and WG FM.

The WG FM chairman informed the ECC meeting that WG FM had also agreed on a liaison statement to ETSI regarding the associated standardisation activities which are needed, based on the results of ECC Reports 246 and 261. The SRD/MG had already started to work on new entries in the Annexes 1, 2 and 3 of ERC/REC 70-03, taking into account the Addendum to CEPT Report 59, ECC Report 261 and ECC Report 246.

The draft Addendum as provided by WG FM was discussed, especially the Annex 3 to it and the Executive Summary and Conclusions sections.

Sweden asked why the proposals in Annex 3 of the draft Addendum do not contain an indoor restriction for cases where this was assumed by WG SE in the scenarios. The WG FM chairman explained that this had already been discussed during the WG FM meeting and emphasised that the studies had been based on typical scenario assumptions in particular concerning indoor use, but the aim had not been to apply indoor regulatory restrictions.

Sweden asked why some footnotes are references in Annex 3, (i), (ii), (iii) etc., while the text of the footnotes is not available. The WG FM chairman explained that these footnotes are already in the latest version of the EC Decision on SRDs and no change to them are proposed. Therefore there is no need to copy and paste all these footnotes into the Addendum again.

The Counsellor of the European Commission, Mr Andreas Geiss, appreciated that CEPT had provided this response (Addendum) to the permanent Mandate within this short time frame, although the task had been challenging. The proposals in the Addendum (ie, Annex 3) provide a suitable balance between harmonisation and flexibility. He also emphasised the interest of the industry, especially with regard to the range 915-921 MHz because of the global importance of this band.

He proposed to reference footnote x1 also in the relevant entries in the column ‘Additional parameters’ and not only in the column ‘Other usage restrictions’. Furthermore, he proposed to amend the text in footnote x1, especially with regard to the definition of ‘data network’ and to shift the text of footnote x7 directly into the relevant places in the table.

Portugal proposed to align the text in the Executive Summary and in the Conclusions sections with the proposals in Annex 3 of the Addendum, also by taking into account the content of the footnotes to the table.

The APWPT raised concerns about the protection of audio devices in the range 863-865 MHz.

Switzerland proposed to also consider how cross-border issues could be solved. The GSM-R usage will be extended in the near future in Switzerland and the E-GSM-R spectrum must not be interfered by SRD usage in a neighbouring country. Switzerland emphasised its concerns about the intended SRD usage in these bands.

The meeting agreed that the cross-border issue will be addressed in the cover letter to the Addendum.

During the discussion it was also questioned what would be the most appropriate way forward by transferring the proposals of the Addendum into an EU wide harmonisation measure. The meeting agreed that this question needs to be discussed during the forthcoming Radio Spectrum Committee meetings, but not within CEPT.

Some administrations expressed concerns that the Addendum would not provide a basis for a binding EU wide harmonisation measure, and doubts about the protection of primary users of the bands (ie, military radio applications and GSM-R). However, other administrations had a different view and saw a need for providing a solution to the market soon.

ECC also discussed in length the footnotes x5 and x6 in Annex 3 of the Addendum which provide flexibility for Member States for selecting 1.6 MHz and 2.8 MHz for SRD in the frequency ranges 870-875.6 MHz and 915.8-920.8 MHz respectively. It has to be highlighted that the possibility for a national preference for non-specific SRD (i.e., 2.8 MHz in the frequency range 915.8-920.8 MHz) could be challenging in terms of enforcement and harmonisation effectiveness in the single market context. For SRD in data networks, it would be easier for Member States to implement and enforce frequency-specific regulations.

Based on the discussions the following amendments were made in the draft Addendum:

* In the Executive Summary and in the Conclusions sections: additional text behind the bullet points (alignment with Annex 3);
* In Annex 3 to the Addendum: Footnote x1 is now also referenced in the column ‘Additional parameters’ where necessary (and be kept in the column ‘Other usage restrictions’);
* Editorial amendment in the table: term ‘data network’ instead of ‘radio network’ (alignment with the text of the footnote x1);
* Text of former footnote x7 now is in the table itself (where relevant) and the footnote x7 and the references to it were consequently deleted;
* Amendment in the footnote x1 itself, including the definition for ‘data network’.

The ECC approved the Addendum to CEPT Report 59 (6th SRD update) on ‘Possibilities for a harmonisation approach for the bands 870-876 MHz and 915-921 MHz, also taking into account new opportunities in the band 862-868 MHz’ (**Annex 11 / Temp 08**) and tasked the Office to publish it.

The ECC also approved a cover letter to the European Commission (**Annex 12 / Temp 12**).

*Statement from APWPT:*

*APWPT would like to express its concern regarding the potential future deployment of new LPWAN systems in the cordless audio band 863-865 MHz. Despite raising concerns within both SE24 and SRD/MG, these concerns were not taken on board. 863-865 MHz is home to millions of cordless audio devices and Assisted Listening Devices throughout CEPT member states. APWPT believes that these audio devices will face a serious risk of harmful (audible) interference from any new LPWAN devices deployed across the 863-865 MHz band. APWPT kindly suggests that perhaps lessons could be learned from the situation highlighted at ECC#44 by EUMETNET.*

*Statement from Germany, Italy, Switzerland and the Netherlands*

Germany, Italy, Switzerland and The Netherlands abstained in the adoption procedure. Statements in several documents as well as in previous meeting minutes, explaining the concerns of our Administrations, are still valid. It is key that any harmonisation measure for SRD´s on ECC level as well as on EC level has to guarantee the protection of the primary service(s) and to leave unaffected the national sovereignty to use spectrum for public purposes and defence. We are not convinced that - even if appropriately described from a technically viewpoint in the Addendum to CEPT Report 59 - the protection of primary and military usages will factually be given when respective SRD equipment circulates on the European market. The requirements of the military user and for the protection of the radio services in the ranges 870-876 MHz and 915-921 MHz will be the basis for any decision on a possible future designation for SRDs in these ranges on national level.

*Statement from Liechtenstein, Austria and Belgium*

Liechtenstein, Austria and Belgium do not operate any military or defence services in the mentioned bands. Nevertheless, Liechtenstein supports the statement by Germany, Italy, Switzerland and The Netherlands concerning the need to protect the primary service(s).

# 5G mandate – 3.6 GHz and 26 GHz

The EC introduced its mandate to CEPT on 5G, covering the two pioneer bands: 3.6 GHz and 26 GHz.

ECC noted the initial activities from ECC-PT1 in response to the Mandate and the expected schedule for activities.

* 1. CEPT roadmap on 5G

The ECC-PT1, the WG FM and the WG SE Chairmen informed ECC about the status of activities in their respective group in response to the actions identified in the CEPT Roadmap on 5G.

ECC PT1 reported about the outcome from the questionnaire on the usage of the band 3.4-3.8 GHz and identified elements that could be considered to address the defragmentation of the band. ECC tasked ECC PT1 to develop an ECC Report aiming at providing guidance to administrations on these elements and agreed a new PT1 work item on the matter.

The WG FM chairman explained that the outcome of the 5G workshop (November 2016) and of the latest ECC plenary meeting in November 2016 and the Mandate on 5G were introduced at the latest WG FM meeting, especially section C of the roadmap, which is related to the vertical sectors, and section D on ‘Other spectrum challenges’. He introduced the discussions with regard to the bands at 400 MHz, 57-66 GHz, 3400-3800 MHz and satellite based solutions for 5G during the latest WG FM meeting (section 1.7 in doc. ECC(17)007).

With regard to the band 3400-3800 MHz, the ECC meeting concluded that this is a MFCN band and therefore all proposals, also from stakeholders representing vertical sectors, should be submitted within that scope to ECC PT1. It is not intended to provide spectrum within this range (parts of it) on an unlicensed basis.

The meeting further noted that WG FM had approved a new Work Item on satellite based solutions for 5G (FM44\_32).

As a result of the discussions in WGFM, ECC/PT1 and CPG, and also taking into account the proposal from the Steering Group in document ECC(17)24, ECC approved an updated version of the Roadmap (see **Annex 05 / Temp 09**) which reflects the activities within ECC since the 43rd ECC Plenary.

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

## **Final Approval of draft ECC Report 263 on** Adjacent band compatibility studies between IMT operating in the frequency band 1492-1518 MHz and the MSS operating in the frequency band 1518-1525 MHz **based on the results of the Public Consultation**

The ECC PT1 Chairman presented the output of the most recent ECC PT1 meeting which had completed the resolution of the public consultation on draft ECC Report 263.

He also informed the plenary that ECC PT1 took the results of this work into ITU-R WP 5D and WP 4C with a proposal to incorporate the conclusions into the working document towards a draft new ITU-R Recommendation on adjacent band compatibility at 1518 MHz.

In addition, ECC PT1 responded to a further liaison from ETSI to confirm the coexistence conditions for IMT base stations and land mobile earth station receivers to be:

1. −30dBm/MHz EIRP unwanted emissions level from IMT BS above 1520 MHz[[1]](#footnote-1),
2. −30dBm blocking for land MES receivers operating above 1520 MHz

The plenary noted the liaison statement to ETSI.

The ECC finally approved the ECC Report 263 as submitted by ECC PT1 **(Annex 16 / Temp 10)** and tasked the Office to publish it

## **Approval for public consultation of the d**raft ECC Report on the suitability of the current ECC framework for MFCN in the frequency bands 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300MHz, 2600 MHz, 3400-3600 MHz and 3600-3800 MHz for the future usage of LTE-based M2M and Narrowband M2M.

ECC PT1 has prepared a draft report (ECC(17)011 A3) on Machine-to-Machine and the suitability of the current ECC framework for use of these technologies in MFCN frequency bands.

It has emerged during the process that there are still some open questions, particularly on which MFCN bands are targeted for M2M technologies

In response to the comments from Portugal, the meeting modified the title in line with the ECC#43 conclusions and completed the executive summary with a table detailing the different technologies and scenarios which have been studied. Some further editorial modifications were brought to the text.

It was noted that the executive summary of the report focuses mainly on the compatibility aspects of the studies. It would be beneficial in the final version of the Report to highlight the conclusions on the suitability of the existing regulatory framework during the public consultation process.

ECC noted that the framework for the band 900 and 1800 MHz does not seem to cover all scenarios for NB-IoT. ECC therefore requested ECC/PT1 to prepare the relevant work item(s) if it is concluded in the ECC Report that some modifications of ECC decisions are necessary.

ECC also requested PT1 to carry out adjacent band compatibility studies at 925MHz between GB NB-IOT and GSM-R (below 925MHz) but also at 915MHz between GB NB-IOT with RFID, IOT and LPWAN (above 915MHz) prior to modifying the regulatory framework. It was noted that technical inputs on this issue could be considered during the public consultation and the results included in the final ECC Report.

The EC Counsellor noted this development which may require an additional mandate to CEPT in order to adapt the relevant Commission implementing decisions.

The ECC approved for public consultation the draft ECC Report 266 on the suitability of the current ECC framework for the future usage of LTE-based M2M and Narrowband M2M in the frequency bands 700 MHz, 800 MHz, 900 MHz, 1800 MHz, 2100 MHz, 2300MHz, 2600 MHz, 3400-3600 MHz and 3600-3800 MHz **(Annex 17 / Temp 11)**

## L Band 1 427 – 1 518 MHz

The ECC/PT1 Chairman explained that an ECC Decision is being drafted in response to the work item agreed at ECC#43. Concerning this work Portugal reminded the conclusion of ECC#43 on the need to consider appropriately the flexibility in particular to take into account the national availability of the sub-bands 1 427-1 452 and 1 492-1 518 MHz and the related timescales.

Work has also begun to develop a draft ECC Report on studies to develop least restrictive technical conditions for 1 427-1 452 and 1 492-1 518 MHz. The content of the draft ECC Report will need to be aligned with ECC Report 263, once approved by ECC. The discussion also highlighted the question of in-band e.i.r.p. as the outstanding technical issue for the development of the technical conditions for the 1 427-1 452 MHz and 1492-1518 MHz bands.

A liaison was sent to inform 3GPP TGS RAN and TGS RAN WG4 on the on-going activities in ECC PT1.

## Mobile indoor coverage

ECC PT1 reported about the information gathered thanks to the questionnaire on best practices for mobile indoor coverage. On this basis, ECC discussed how to progress the work and whether guidelines can be drawn.

Although all administrations recognized the importance of the issue, it was also felt unrealistic and inappropriate to develop an ECC Report on the basis of the results of this questionnaire. It was therefore decided that, at this stage, ECC/PT1 should continue to gather information from administrations on technical options and solutions available to address indoor coverage issue for mobile services and to report regularly to ECC meeting. ECC/PT1 should also discuss the technical aspects of solutions consisting in allowing indoor base stations or repeaters under a general authorization regime (ie licence exempt regime).

The relevant work item of PT1 was modified accordingly.

## GSM-R and future of railways

The WG FM chairman informed about the latest activities related to railway applications.

WGFM#87 finally approved the amended version of ECC Recommendation (05)08 on ‘Frequency planning and cross-border coordination between GSM Land Mobile Systems (the GSM 900, GSM 1800, and GSM-R)’, based on the outcome of the public consultation and based on proposals submitted by FM54, in cooperation with ECC PT1.

The new SRdoc TR 103 333 on GSM-R networks evolution was introduced during the latest WG FM meeting by ETSI.

WG FM decided to establish Project Team FM56 on radio spectrum for railway applications, agreed on the ToR for this PT and amended the ToR for FM54. The first Work Item for FM56 was approved.

Further information is provided in section 1.8 of the WG FM progress report (ECC(17)007).

This was noted by the meeting.

## PMSE (Video and Audio)

The WG FM chairman informed the meeting about the recent activities.

The outcome from the questionnaire on ERC Recommendation 25-10 and the way in which the collected national information, submitted in the responses to the questionnaire, should be reflected in the tables in Annexes 4 and 5 of ERC/REC 25-10 was considered by WG FM. Replies had been sent to the ECO from 27 administrations. ERC/REC 25-10 is now available in EFIS (http://www.efis.dk/).

WGFM#87 had an intensive discussion regarding the band 960 - 1164 MHz. Finally the following course of action was approved:

* WG FM had sent a letter to ICAO, copied to others;
* FM51 should further develop the regulatory and legal aspects;
* FM51 may make improvements to the draft LS to WG SE;
* WG FM will forward the LS to WG SE at the May WG FM meeting.

WG FM approved the draft amended Annex 10 of ERC Recommendation 70-03 for public consultation. This Annex 10 now includes a new entry for radio microphone use in the band 1518 - 1525 MHz.

WG FM and FM51 are still working on best practises for video PMSE in the 2.7-2.9 GHz band.

This was noted by the meeting.

Austria asked for the reasons for the deletion of the entries for ALDs in the range 915-921 MHz. The WG FM chairman clarified that because the ALD demand in 915 921 MHz had not materialised or is unlikely to materialise in the future, it had been decided at the latest WG FM meeting to delete the relevant entries from the amended draft Annex 10 in ERC/REC 70-03.

Further information is provided in section 1.9 of the WG FM progress report (ECC(17)007).

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

WG SE / SE7 is performing two sets of additional studies to complement the studies in ECC Report 240:

* Sharing and compatibility studies for Broadband PMR/PAMR (including NB-IoT) using LTE technology in the bands 410-430 MHz and 450-470 MHz to address the impact on the other existing systems using different technology and on DTT above 470 MHz.
* Sharing and compatibility studies for BB-PPDR systems operating in the frequency band 410-430 MHz to address the impact on radiolocation in this band and on RAS below 410 MHz.

The WG SE chairman informed the meeting that the approval for public consultation of this draft ECC Report may be expected for the meeting of WG SE in May 2017.

ECC suggested presenting the results of the PMR/PAMR studies in a technology neutral way, e.g. depending on the bandwidth rather than on the system type, with elements such as necessary guard bands and/or BEM applying to the various bandwidth category for ensuring coexistence with different systems in adjacent bands or blocks. It was pointed out that the WGSE should consider in its studies all different bandwidth, in line with the WGFM work item. The WGSE Chairman reminded that the work will be contribution driven.

The WG FM chairman introduced the outcome of the latest WG FM meeting, based on the FM54 proposals.

WG FM proposed that a new ECC Decision for land mobile systems was the best way forward, replacing the current ECC Decisions (04)06 (wideband) and (06)06 (narrowband). The intention would be to have a single ECC Decision that took into account NB, BB, M2M, digital, analogue and other considerations in the 400 MHz bands as well as the related VHF PMR/PAMR bands. The new ECC Decision for land mobile systems would then encompass analogue and digital systems in the frequency ranges 68-87.5 MHz, 146-174 MHz, 406.1-410 MHz, 410-430 MHz, 440-450 MHz and 450-470 MHz. The new ECC Decision should be technology neutral as far as possible and backwards compatible to the current regulation. The relevant background for the new regulation will be provided by the ECC Report (draft) on current use, future opportunities and guidance to administrations for the 400 MHz PMR/PAMR frequencies, which is currently under discussion and which will also take into account the expected outcome from WG SE (SE7).

The ECC endorsed this way forward, especially with regard to the development of the new ECC Decision. It was further decided that this new ECC Decision should, based on the outcome of the WG SE studies, contain conditions to ensure coexistence among various systems/technologies and also to ensure compatibility with other usages in adjacent bands.

It was indicated during the discussion that M2M/IoT and 5G technologies should be considered during the activities within WG SE and WG FM.

The Russian Federation proposed that also ECC Report 25 on ‘Strategies for the European use of frequency spectrum for PMR/PAMR applications’ (approved in 2003) should be considered by WG FM (FM54). The WG FM chairman explained that this ECC Report as well as other deliverables are taken into account during the process and are addressed in the draft new ECC Report on current use, future opportunities and guidance to administrations for the 400 MHz PMR/PAMR frequencies, which is under development.

Germany emphasised the need for the backwards compatibility of the new ECC Decision, especially with regard to E-GSM-R.

The meeting agreed that what has been possible so far, based on ECC Decisions (04)06 and (06)06 should also be possible in the future.

The WG FM chairman also informed the meeting that if no objection is submitted until the next WG FM meeting in May 2017, the Recommendation T/R 32-02 (UHF frequencies on-board vessels) will be withdrawn. With this respect investigations had revealed that ITU-R Radio Regulations’ footnote 5.287 and Recommendation ITU-R M. 1174-3 contained all the necessary information.

The ETSI Representative conformed that the relevant Harmonised Standards EN 300 720 refers to the ITU-R Recommendation M.1174-3, and that the withdrawal of Recommendation T/R 32-02 would cause no difficulties.

## Review of ECC/ERC/ECTRA Decisions

The WG FM chairman introduced the updated list on the review of ECC/ERC/ECTRA Decisions and referred especially to some ECC Decisions.

WG FM agreed on a work plan, proposed by SRD/MG, for the revision of ECC Decision (08)01 on ITS in the 5.9 GHz range which also includes the creation of a new draft ECC Report in parallel. ECC#43 had already agreed that the revision of this ECC Decision should be focused on the implementation of a solution for Urban Rail.

The ECC chairman asked for clarification about the scope of the new ECC Report. The WG FM chairman introduced the major items for the ECC Report:

* Summarise important spectrum and operational requirements for Urban Rail. Sharing aspects ITS/Urban Rail (and towards other applications in the spectrum, e.g. Urban Rail CBTC needs to be detected by other current or potential future (e.g. RLANs) applications in the same way as ITS);
* What should be defined in standards, what needs to be included in the regulations (ECC and EC Decisions, while the EC Decision should not exclude Urban Rail Systems);
* Recognise existing implementations in the band 5915-5935 MHz;
* Outline the concept for future regulation and possible need for a transition period, if needed;
* The ECC Decision should be technology-neutral (technology-agnostic) as much as possible;
* Definitions used by the regulatory framework (ITS, Urban Rail, e.g. CBTC) have to be clear.

This was noted by the meeting.

An early review date, until the end of 2017, was agreed when the ECC Decision (15)02 on ‘The harmonised use of broadband Direct Air-to-Ground Communications (DA2GC) systems in the frequency band 1900-1920 MHz’ and the ECC Decision (15)03 on ‘The harmonised use of broadband Direct Air-to-Ground Communications (DA2GC) systems in the frequency band 5855-5875 MHz’ were finally approved. WG FM intended to start the discussions on the review at its next meeting in May 2017. This was supported by the ECC meeting.

ECC was invited to endorse the updated list on the review of ECC/ERC/ECTRA Decisions. The updated list, also containing the decisions drawn during this ECC meeting, was endorsed and will be used by WG FM as a basis for the future (**Annex 13 / Temp 16**).

## Interference from 5 GHz RLAN to meteorological radars

Mr Philippe Tristant (Eumetnet) introduced the letter to the European Commission (DG Connect and DG Grow), copied to the ECC (doc. ECC(17)018), and the additional contribution to the ECC meeting (doc. ECC(17)032) describing an increase of the number of interference events to meteorological radars in most European countries, due to non-compliant and illegal use of RLAN 5 GHz equipment.

The WG FM chairman introduced the discussions coming from the latest WG FM meeting, where the letter had also been discussed (section 1.12 in doc. ECC(17)007). He also referred to the new questionnaire on interference statistics regarding the interference cases in the year 2016, which had been sent out by the ECO recently. WG FM had also invited administrations to provide relevant proposals on enforcement issues directly to future FM22 meetings.

During the discussion Austria clarified how the number of interference cases in Austria, also mentioned in the contribution from Eumetnet, should be understood. .The “interference events” mentioned in the document does not correspond to the number of interference cases. The discussion in Austria mainly concentrates on one radar station in the vicinity of the Vienna airport. Austria also brought to the attention of the meeting the issue of cross border interference cases, where the enforcement gets even more complex.

The ETSI representative, Dr Michael Sharpe, confirmed that according to the latest version of the harmonised standard EN 301 893 the user of the RLAN cannot change the software and hence DFS cannot be deactivated.

The Counsellor from the European Commission, Mr Andreas Geiss, informed the meeting that the Commission will support the efforts to improve the situation. He also referred to possibilities according to Article 5 of the RE Directive, under which manufacturers will have to register their radio equipment.

Germany informed the meeting that the prohibition of specific products will be published in the future in the official gazette of BNetzA and on the website.

Portugal highlighted that appropriate measures require resources on national level, for a-priori (e.g. awareness campaigns) as well as for a-posteriori measures. This is challenging because of the high number of RLAN equipment. In this context, they also noted that the several reports on market surveillance campaigns has shown a very high level of non-compliance (technical and/or administrative) of RLAN as well other type of equipment (e.g. RPAS, radio controlled toys); it is felt that these facts demands a high level reflection and a quick action of the involved entities.

From Denmark’s point of view some service providers using WAS in the 5 GHz range are small companies which are possibly not completely informed about the details of the regulation and therefore it might be helpful to try to inform them in the future.

France emphasised that activities are required to improve the situation and it should be taken into account for the future that a regulation has to be enforceable.

The outcome of the discussions and the agreed way forward are reflected in **Annex 14 / Temp 14 Rev2**. This Annex will also be published on the ECC website, annexed to the ECC Report to RSCom and brought to the attention of ADCO RED by ECO.

## Civil/military meeting

The WG FM chairman informed the ECC meeting about the civil-military meeting in 2016.

An overview on the presentations during the civil-military meeting (23-24 November 2016 in Prague) and on the results (doc. FM(17)005-Annex 05) was introduced during the latest WG FM meeting.

A public version of the NJFA was provided for the ECC meeting (Info 001). This will also be useful for the forthcoming update of the ECA Table (ERC Report 25). It is planned to approve an amended version at the WGFM#88 meeting in May 2017 for public consultation.

The working methods for the Civ/Mil meeting (last revision was in 2010) will be reviewed by WG FM.

## Smart tachograph, weight and dimension applications

WGFM#87 discussed how to proceed with the activities on smart tachograph, weight and dimension applications. This will be an issue for the 7th update of the EC Decision on SRDs. It was already indicated in CEPT Report 59 that smart tachograph, weight and dimension applications in the 5.8 GHz band should be studied during the 7th update cycle for the EC Decision on SRDs. The aim is to add provisions for these applications to the Annex of the EC Decision, which currently restricts the TTT usage in 5795-5815 MHz to road tolling systems.

WG FM had already asked WG SE to open a new Work Item for conducting the necessary studies. The published EU regulation includes information about the ‘communication profiles’ for roadside inspections in Appendix 14 of Commission Implementing Regulation (EU) 2016/799.

WG FM was also informed that ETSI had started work towards an SRdoc in support of the studies in WG SE. ETSI informed that it had not been possible to make progress as no further input had been received from the JRC If this SRdoc is available in due time, it will also be used as a basis for the work during the 7th update cycle.

The WG SE chairman preferred to receive an SRdoc for carrying out the relevant technical studies.

## Fixed service above 92 GHz

WGFM#87 agreed that it would be preferable that all demand (in this case fixed service and SRDs or under the existing radiolocation service allocations) be considered at the same time. A better coordination between WG FM and WG SE is needed in this regard. WG SE / SE19 had already agreed to develop two new ECC Recommendations on channelling arrangements for the 92-114.5 GHz and 130-174.8 GHz bands, and one ECC Report covering both bands, but there may also be other spectrum demand than for FS, e.g. for radiolocation and short range sensor applications.

Information about ongoing activities was also provided in the report from ETSI (doc. ECC(17)30), related to EN 305 550, covering SRDs in 40 GHz - 246 GHz, and in the ECO Bulletin (ECC(17)027) regarding activities in the USA related to the range 95-475 GHz.

It can be seen in the 60 GHz range, that designations to the fixed service can cause restrictions to other radio applications later on, e.g. on WiGig in this case. The 60 GHz range is currently under review.

The ECC meeting concluded that an ECC Recommendation for the fixed service should not be understood as an exclusive designation.

ECC also invited WGFM to consider spectrum uses and spectrum demands in the higher bands and to identify proactively potential incompatibilities or conflicts in the process of the review of the ECA Table. This could lead WGFM to request further technical studies by WG SE.

## 700 MHz Information repository

Mr. Bruno Espinosa (ECO) presented in document ECC(17)23 the new version of the repository, including the latest improvements implemented late 2016. Positive feedback was expressed by ECC. CEPT administrations were invited to upload the relevant information into the repository. The new version of the repository will be brought to the attention of the next meeting of the UHF band South European Digital Dividend Implementation Forum (SEDDIF) to inform them about the 700 MHz Information repository.

## 6 GHz

A multi country proposal from Belarus, Estonia, Liechtenstein, Lithuania, Russian Federation, Slovenia, Switzerland was introduced by Mr René Tschannen from Switzerland (doc. ECC(17)012rev2). It was proposed that the ECC plenary tasks WG FM to conduct studies in view of developing harmonised usage conditions for WAS/RLANs in the 6 GHz band. A proposal for a Work Item was attached to this contribution.

Mr Alexander Roytblat (Wi-Fi Alliance) introduced the contribution from the Wi-Fi Alliance (doc. ECC(17)015). This contribution expressed Wi-Fi industry support for the proposal to initiate studies to develop harmonised regulatory solutions to accommodate Wireless Access Systems including Radio Local Area networks (WAS/RLAN) in the 6 GHz band.

During the discussion some additional administrations supported the proposed work item in principle, whereas some others had the view that it would be too early to initiate specific technical studies and general considerations should be carried out firstly.

The 6 GHz range is used for FS and FSS (uplink), therefore some administrations had doubts about possible sharing opportunities. Therefore those administrations had the view that, if at all, firstly the feasibility should be studied before detailed activities on a spectrum regulation may be started.

Some administrations expressed concerns about a possible impact on the preparation of WRC-19 agenda item 1.16.

Luxembourg referred to ECC Report 244 which also covers studies between RLANs and FSS (and other services / applications) in the range 5725 - 5925 MHz and stressed the conclusions that the sharing is not feasible unless there are severe limitations in terms of eirp and indoor use restriction. These conclusions would be equally applicable to the 6 GHz band.

The Russian Federation mentioned elements of this Report showing that certain conditions and mitigations techniques may be envisaged to enable sharing. The WGSE Chairman also recalled that the ECC Report 244 is stating that further studies are necessary.

Luxembourg also noted, as the work on AI 1.16 is not yet completed, that it would be premature to start a new work item already now as this work item would prepositioning of 1.16 at WRC-19.

The ECC meeting agreed that any overlapping between this work item and the WRC-19 agenda item 1.16 should be avoided.

Then the discussions were mainly related to the frequency range which should be addressed by the new Work Item, i.e. 5925-6425 MHz, 5925-6700 MHz or 5925-6725 MHz. The Wi-Fi Alliance had a preference to study the complete range from 5925-6725 MHz and to decide later on, depending on the results of the technical studies, which part of this range may be designated for WAS/RLANs.

Some administrations had the view that studying the range from 5925-6725 MHz, even with the working assumption that FS and FSS must not be interfered by WAS/RLANs, would create a wrong signal, especially by taking into account that some administrations are going to move their FS usage from lower parts of the spectrum into the 6 GHz range. It was also pointed out that extending the WAS/RLANs band by 500 MHz would already provide a significant increase of spectrum and that it would be better to limit the consequences in case the sharing solution with fixed service does not work as well as expected, like for the 5 GHz meteorological radars interference. It was therefore decided to limit the studies to 5925-6425 MHz.

The result will be presented in an ECC Report.

Also the organisation of the work was discussed. The UK proposed to establish an ECC Task Group for this issue. It was finally decided to retain the normal process. It is expected that WG FM at its next meeting in May 2017 will ask WG SE to carry out the relevant compatibility and sharing studies. WG FM and WG SE will also decide how to organise this work within their groups.

After some discussions the meeting approved the Work Item for WG FM as provided in **Annex 15 / Temp 13 Rev1**. The WI FM-52 was supported by the following countries: Austria, Belarus, Estonia, Liechtenstein, Lithuania, Norway, Russian Federation, Slovenia, Switzerland and United Kingdom.

# Report from RSCOM, RSPG and TCAM

The EC Councillor presented document ECC(17)029 covering the activities of the European Commission since the last meeting. In particular, he made verbal reference to the following points:

1. The publication of the amendments of the MCA and MCV implementing decisions
2. The final 5G mandate which focuses on the “pioneer” bands 3.4-3.8 GHz and 24.25-27.5 GHz
3. The expected way forward concerning the 6th update of the SRD Decision
4. The new RSPG Opinions on spectrum issues in the proposal for a Directive of the European Parliament and the Council establishing the European Electronic Communications Framework, Spectrum aspects of the Internet of Things (IoT) and Spectrum aspects of Intelligent Transport Systems (ITS).
5. The latest discussion within TCAM notably on the implementation of the RE Directive
6. The 5GPPP Workshop on "spectrum for 5G" on 7th June 2017
7. The launch of the study on fixed - mobile convergence and of a study on spectrum assignments

These elements were discussed in the relevant sections of the minutes. ECC clarified its understanding that the 5G Mandate is restricted to the bands 3.4-3.8 GHz and 24.25-27.5 GHz and that this is reflected in the ECC/PT1 Work Items.

Several ECC members stressed the need to avoid as far as possible any RSC and RSPG meetings the same week as ECC, CPG and WGFM. The list of planned dates of ECC and WGFM for 2018 is now available and the CPG meetings in 2018 are likely to be confirmed at the CPG meeting in 2 weeks. The EC Counsellor will check with the RSC and RSPG provisional dates in 2018 and will try to adjust them in case of conflict.

# Report from ETSI

Michael Sharpe, Helene Schmidt and Georges de Brito presented documents from ETSI, emphasising the following points:

* The Radio Equipment Directive continues to dominate the technical work. The Directive is applied in the EU Member States since June 2016 and compliance becomes compulsory for manufacturers from June 2017.
* ETSI has published 144 Harmonised Standards compared to its original work programme of 163 (including 13 “repeats” where the Commission has requested revisions before citing the Harmonised Standards in the OJEU). A further 63 are either on public approval, or have been approved and will start shortly.
* 51 Harmonised Standards had been cited in the OJEU to date. The report summarises the progress that has been made with the Commission to streamline the ex-post review that has to be carried out before the Commission can cite Harmonised Standards in the OJEU.
* ETSI drew the attention of the meeting in particular to the progress on harmonised Standards for short-range devices, wireless-access systems, IMT and EMC, and noted that the Harmonised Standards affecting automotive applications (DSRC, ITS and TTT) had attracted a significant comments from the Commission.
* ETSI informed the meeting on the progress of developing a Harmonised Standard for Broadband Public Protection and Disaster Relief, which had been initiated following a joint CEPT-ETSI workshop on the subject. In particular this Harmonised Standard will be based on work on 3GPP TSG RAN, who are informed (see document ECC(17)031) of the necessity to develop global specifications that are compatible with the Least Restrictive Technical Conditions (LRTC) identified in ECC Decision (16)02.
* ETSI gave a detailed presentation of TS 103 379 “Reconfigurable Radio Systems (RRS); Information elements and protocols for the interface between LSA Controller (LC) and LSA Repository (LR) for operation of Licensed Shared Access (LSA) in the 2 300 MHz - 2 400 MHz band” (see document ECC(17)025 and document ECC(17)INFO 02 which includes diagrams included in other relevant ETSI deliverables).
* The ETSI procedure for approving System Reference Documents has been updated in January 2017. The full procedure is available from the ETSI portal page [portal.etsi.org/ocg](https://portal.etsi.org/ocg) under “General Information” as “[ETSI Coordination on radio spectrum issues](https://portal.etsi.org/Portals/0/TBpages/ocg/Docs/OCG(17)061_058_Revised_working_procedures_for_coordination_on_ETSI_radio_sp.docx)”
* ETSI has started work on two new System Reference Documents: [DTR/ERM-566](https://portal.etsi.org/webapp/WorkProgram/Report_WorkItem.asp?WKI_ID=51315) (Low Power Wide Area Networks - Chirp Spread Spectrum (LPWAN-CSS) operating in the UHF spectrum below 1 GHz) and [DTR/ERM-569](https://portal.etsi.org/webapp/WorkProgram/Report_WorkItem.asp?WKI_ID=51390) (Short Range Devices (SRD) using Nuclear Magnetic Resonance (NMR) operating in the frequency range 1 MHz to 50 MHz)

# Work Programme of the ECC and its subordinated bodies

* **Update of the WG FM Work programme**

The WG FM chairman introduced the Work Items which had been adopted at the latest meeting (WGFM#87), see section 1.16 in doc. ECC(17)007, items e) to j). This was noted by the ECC meeting.

* **Update of the ECC PT1 Work programme**

The ECC PT 1chairman introduced the following new or modified Work Items:

**New work items**

* ECC Report on Defragmentation of 3400-3800 MHz
* CEPT Report A (3400-3800 MHz) in response to EC mandate on 5G
* CEPT Report B (24.25-27.5 GHz) in response to EC mandate on 5G

**Modified work item**

Best practices on indoor coverage for Mobile services (MFCN), see section 8.4.

These work items were adopted by the plenary and are contained in **Annex 18 / Temp 15 Rev1**.

# Matters related to European Communications Office, ECO

## ECC Communications

ECC endorsed the proposals from ECO (document ECC(17)21) for topics and timing for the newsletters in 2017.

The first edition of the ECC newsletter in 2017 is planned for April and will include 3 articles on the role of sharing and compatibility studies, on recent ECC activities on PMSE and on numbering for eCall, taking into account the related workshop held in ECO on 31 January 2017.

For the July 2017 edition, the plan is to develop articles on status of 5G activities; developments on ITS and migration from PSTN/ISDN to IP-based networks.

Regarding the edition planned for November 2017, possible topics under consideration include spectrum for drones, spectrum for M2M/IoT including the final outcome of the addendum to CEPT Report 59 and outcome from EFIS workshop and new Documentation Database.

ECC members were invited to consider possible issues and to bring them to the attention of the Office.

ECC also noted and endorsed the plans for workshop and training sessions in 2017.

## Other matters on ECO support to ECC

The ECO Deputy Director, Bruno Espinosa, presented in document ECC(17)22 an overview of the ECO activities in support of ECC with an emphasis on the recent and planned developments on the CEPT webportal, EFIS and on the ECO documentation database.

Concerning the CEPT webportal (including the ECC website), ECC members were invited to provide feedback and suggestions related to the upgraded web-portal to the ECO.

The ECO also reminded the various groups within ECC to consider using the relevant templates available [here](http://cept.org/ecc/deliverables/ecc-templates).

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

WG FM

The WG FM chairman referred to Part 2 of the progress report (doc. ECC(17)007). He highlighted the following issues.

Two new draft ECC Decisions were approved for public consultation by WGFM#87:

* Draft new ECC Decision (17)CC on the withdrawal of ERC Decision (98)15 on 'Licensing of Omnitracs terminals for Euteltracs';
* Draft new ECC Decision (17)DD on 'The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.7 - 12.75 GHz and 14.0 - 14.5 GHz’.

It is expected that both draft ECC Decisions will be provided to the ECC#45 meeting for final approval.

The WG FM chairman again requested that administrations should consider a nomination of a candidate for the Radio Amateur Forum Group.

The WGFM#88 meeting will be from 15-19 May 2017 in Dublin. A hosting administration is needed for the WGFM#90 meeting from 05-09 February 2018.

**WG SE**

The WG SE Chairman reported briefly about the remaining issues from WG SE contained in ECC(17)009. He highlighted the following points:

* WG SE approved finally seven new ECC Reports:
* ECC Report 246: Wideband and Higher DC Short Range Devices in 870-875.8 MHz and 915.2-920.8 MHz (companion to ECC Report 200)
* ECC Report 261: Short Range Devices in the frequency range 862-870 MHz
* ECC Report 262: Studies related to surveillance radar equipment operating in the 76 to 77 GHz range for fixed transport infrastructure
* ECC Report 258: Guidelines on how to plan LoS MIMO for Point-to-Point Fixed Service Links
* ECC Report 259: Sharing and compatibility studies between Maritime Broadband Radio (MBR) in the 5850–5900 MHz frequency band and other systems
* ECC Report 257: Compatibility studies between low power transmitters for animal tracking and other existing radiocommunication applications in the frequency band 401-403 MHz
* ECC Report 260: Description of methodologies to estimate the technical impact of Wind Turbines on Fixed Radio Links
* WG SE noted that 36 responses were received to the Questionnaire on the developments in the FS in the millimetre wave bands. The results of Questionnaire will be included in the revision of ECC Report 173. SE19 informed ECC PT1 with regard to the use of FS in the frequency bands discussed in relation to WRC-19 AI 1.13.
* WG SE noted that the first ten satellites Iridium NEXT have been now launched on 14 January 2017. It is expected that the measurements of the unwanted emissions falling in the RAS band could be performed during April/May 2017 by the Leeheim monitoring station.
* The impact of Wireless Power Transmission (WPT), including for charging of electric vehicles (EV) in the band 79-90 kHz, on the radio services and systems in the same and adjacent bands will be performed by SE24. The results will be used by WG FM to update the limits for inductive SRDs in the ERC Recommendation 70-03 and by CPG / CPG PTD to address the WRC-19 Agenda Item 9.1, issue 9.1.6.

WG SE agreed that this study should not be restricted to WPT for EV but also include other WPT applications and the studies should be based on SRdocs and Standards provided by ETSI. WG SE welcomed the initiation of common activities by ETSI and CENELEC (CISPR) to define similar limits for WPT to protect the radio services independent whether WPT is considered as radio or EMC.

* WG SE / SE21 have noted that ETSI ERM is considering a new receiver parameter called “interferer signal handling”, which should be used when the usual receiver parameters as defined in the ETSI EG 203 336 guide, e.g. such as sensitivity, are not very appropriate for certain applications, e.g. for UWB. However, there were several concerns raised related to this parameter, e.g., on impact on the efficient use of the radio spectrum. SE21 and ETSI will co-operate to study the impact on spectrum engineering of this new parameter.
* SE40 is carrying out sharing and compatibility studies on NGSO ESOMPs operating in the 14-14.5 GHz FSS allocation. There is a lack of documented radionavigation service characteristics and/or deployment information in the frequency range 14-14.5 GHz. Therefore, interested administrations are invited to provide those characteristics directly to SE40 in order to conduct the relevant compatibility studies.
* WGSE organisation
* WGSE confirmed Mr Krunoslav Bejuk, Croatia, for the second term per acclamation.

**Review of the organisation of the work related to SRD**

Sweden introduced a proposal to review the organization of the work related to SRD in ECC (ECC(17)028rev1) because topics related to short range devices (SRDs) are fast developing and they usually trigger several work items within ECC. Since many years the regulatory aspects are covered by SRD maintenance group (SRD/MG) and the technical aspects of the work are addressed in SE PT24. Given the current ECC work structure, SRD related topics and the number and scope of the SRD work items that could be foreseen in a near future, it seems necessary to initiate a review of how work could be better organised. Smaller administrations, like in Sweden, may find it challenging to assign resources to follow the work within the current structure.

Therefore, Sweden proposed a review of the organisation of the work related to SRD within ECC with a view to examine the possibilities to establish one single SRD project team directly under ECC plenary covering both regulatory and technical aspects.

The Administrations present in this meeting discussed very detailed this proposal. There is agreement that there are merits in this proposal to strengthen the importance of SRDs and to improve the administrative organisation. Concerns were expressed that excessive burden would be given to ECC, if such a project team would be direct under the Plenary. Other comments preferred to keep the 3 level structures within ECC and to have carried out the technical studies under WG SE and the regulatory aspects under WG FM. There was also the view expressed that the work in a joint FM/SE PT or PT under ECC would not reduce the work load compared to the existing structure.

ECC agreed to keep the current structure of SRD/MG and SE24 but confirmed the need to continue the practice of having SE24 followed by SRD/MG in the same week and at the same location, so as to facilitate the participation of administrations to the SRD technical activities. This does not exclude additional web meetings or physical meetings for dedicated issues.

The WG SE Chairman also announced that he will inform WG SE that WG FM will task WGSE to perform compatibility studies (see 8.14) related to the wireless access systems (including RLAN) in the band 5925-6425 MHz. He will invite the Administrations - well in advance before the next WG SE meeting in May - to consider whether these studies should be addressed by SE24 or in a new SE PT.

ECC PT 1

ECC/PT1 Chairman reported the completion of revisions of ECC Recommendations (05)08, (11)04 and (11)05 as well as the progress on WRC-19 AI 1.13 and AI 9.1 (issues 9.1.1, 9.1.2 and 9.1.8).

CPG

The ECC Chairman introduced, on behalf of the CPG Chairman, the CPG Progress Report (document ECC(17)006). The elements relating to the 5G roadmap have been considered under section 7.1. The ECC meeting also acknowledged with regrets as a matter of principle the retirement of Mr Anders Jönsson (S) which has played a very significant role in ECC.

The attention of the meeting was drawn on the letter from Com-ITU (document ECC(17)008) on ITU-R objectives which will be reviewed by PP-18. All ECC representatives are invited to contact their Com-ITU representatives to assist in responding to the related Com-ITU questionnaire. In addition, CPG will need to consider contributing to Com-ITU, in particular if the issue is discussed within ITU RAG.

The EC Counsellor reminded the meeting about the joint EC-CPG workshop on the preparation of WRC-19 which will be organized on the 11th May in Brussels.

**WG NaN**

The Vice Chairman of WG NaN (Ms. Liz Greenberg) presented the Progress Report from WG NaN.

The WG held its 13th meeting in Brussels on 22-24 November 2016. The WG adopted:

* one new deliverable
* ECC Report 255 on the use of Assisted-Global Navigation Satellite System (A-GNSS) capabilities to improve caller location information for emergency calls originating on mobile devices; and
* three draft deliverables for public consultation
* Draft ECC Recommendation (17)02 on harmonised assignment and management principles for E.212 Mobile Network Codes;
* Draft ECC Report 264 on the feasibility of an ECO-hosted directory of E.164 numbers to facilitate contact between PSAPs in different European countries; and
* Draft ECC Report 265 on migration from PSTN/ISDN to IP-based networks and regulatory aspects.

A description of the deliverables’ subject matter and conclusions was provided and ECC were advised that the consultations on the three draft deliverables closed on 8 February 2017. The relevant Project Teams were considering the responses received before revising the documents as required and presenting them to the 14th WG NaN meeting (30 May – 1 June 2017) for planned final adoption.

A summary of the seven responses received on the draft feasibility report on the ECO-hosting of a PSAP Directory was provided. Following analysis of the submissions and adoption of the Report at the next WG NaN meeting, the findings will be presented to ECC at its June 2017 meeting. Also provided for information purposes only will be an internal paper on PSAP-Directory topics not suitable for public consultation (such as budgetary and internal issues for ECO). In response to a question from Germany, ECO confirmed that it was gathering legal advice in relation to hosting the PSAP Directory and that the outcome would be made available for the June 2017 ECC meeting.

ECC were informed of the useful focus session at the WG NaN meeting on the numbering and networks proposals in the European Electronic Communications Code, at which the European Commission presented its proposals for the revised regulatory framework. WG NaN furthered its considerations of the proposals by holding a dedicated one-day meeting on 3 February to allow WG members to share insights.

The work in progress of the four project teams was mentioned, including an update on the developing ECC Decision on harmonised prefixes and short codes in national numbering plans. It is planned to adopt the draft Decision for public consultation at the next WG NaN meeting.

Finally ECC was told of the success and value of the public workshop on numbering for eCall hosted by ECO on 31 January 2017. The workshop will help to inform the WG’s considerations on developing a Recommendation on appropriate numbering resources to support eCall.

# ECC Rules of Procedures

As a result from the discussions held at the 43rd ECC Plenary meeting, ECC received proposals from the Steering Group (document ECC(17)26) and from Spain (ECC(17)33) to amend the ECC Rules of Procedure, in particular to clarify the process for appointment of Chairmen and Vice-Chairmen.

On this basis, ECO was tasked to produce a consolidated revision of the Rules of Procedure and to make it available to ECC members 2 months before the next ECC Plenary so that it can then be considered for approval.

Sweden indicated its willingness to propose another amendment in article 8 so as to ensure that they could not be any indefinite chairmanship terms. The balance between the flexibility for the WG to manage project team chairmanship terms and the interest of ensuring rotations of chairmanship was briefly discussed by the meeting and Sweden was invited to submit contributions in advance to the next ECC meeting on the basis of the consolidated revision which will be made available soon by ECO.

# Contacts and co-operation with outside bodies

## Possible LoU with 5G-IA

The request from 5G-IA Chairman, Mr. Jean-Pierre Bienaimé, to sign an LoU with 5G-IA was orally presented by the ECC Chairman. 5G-IA is the industry part of the 5GPPP and cooperation already exists between the two bodies.

Sweden noted that a more formal request would have been useful to better consider the proposal. It was agreed by the meeting that this should be the normal practice. However, considering the importance of this cooperation for one of the strategic objective (5G) of ECC, the meeting also agreed to empower the Chairman to sign such an LoU with the 5G-IA without delay.

The ECC Chairman informed the meeting about the progress in the LoU with Eurocontrol. The draft LoU is being reviewed by the legal service of Eurocontrol and the signature will follow.

Germany asked whether the number of observers should be limited given the increasing difficulties in organizing meetings such as WG FM or CPG given the number of participants.

ECO reminded that ECC SG requested ECO to update for the next steering group the status of existing LoU/MoU (ie contact points, need for continued cooperation, …). It pointed out for example that UMTS Forum does not exist anymore so that the LoU should be withdrawn.

The meeting also discussed the rules applying to the invitation of observers and the more general issue of organizing WGFM and CPG meeting. This will be also addressed during the next ECC SG meeting.

# Schedule of Meetings

The schedule of meeting for WG’s and PT for the years 2017-2018 could be found in **Annex 19**.

# Date and Place of next meetings

The following meetings of the ECC are scheduled:

|  |  |
| --- | --- |
| Date: | Country: |
| 27 - 30 June 2017 | The Netherlands, Rotterdam |
| 14 - 17 November 2017 | Romania, Bucharest |
| 27 February – 2 March 2018 | [TBD] |
| 12 – 15 June 2018 | [Russian Federation] |
| 23 – 26 October 2018 | [City], France |

# Any other business

None

# Approval of the minutes of the 44th ECC meeting

The ECC approved the minutes of the 44th ECC meeting as given in Document **ECC(17)034 Rev 2**

# Closure of the meeting

The Chairman expressed his gratitude to the Commission for Communications Regulation (ComReg) for hosting the meeting in a memorable sport stadium of the beautiful city of Dublin, the Croke Park, for enabling delegates to discover Gaelic sports and for having organized a momentous social event.

He thanked one more time Dr Samuel Ritchie for the kind words of welcome.

He conveyed special thanks to Mrs. Suzanne Power for the overall organisation.

He also expressed his special appreciation to the excellent 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 44th ECC meeting.

1. IMT BS operating up to 1517 MHz. [↑](#footnote-ref-1)