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| Plenary |  Doc. ECC(14)021 |
| 36th Meeting |  |
| Cluj-Napoca, 11th – 14th March 2014 |  |
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| Date issued:  | 06 March 2014 |
| Source:  | TG6 Chairman |
| Subject:  | TG6 Progress Report |
| NGroup membership required to read? (Y/N) |
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| Summary:  |
| This report summarises the activities of the ECC Task Group 6 (TG6) - "Long term vision for the UHF broadcasting band".Since the last ECC meeting in November, two TG6 meetings took place. The 2nd meeting of ECC TG6 was held in Lisboa (Portugal) from 3 to 5 December 2013, and was attended by 66 participants including 21 Administrations.The 3rd meeting of ECC TG6 was held in Copenhagen (Denmark) from 11 to 13 February 2014, and was attended by 67 participants including 21 Administrations.The minutes of the meetings are available in TG6 web folder as TG6(13)049 and TG6(14)026, respectively.This report identifies the main discussions as well as the results of the meetings. The working document towards ECC Report on Long Term Vision for the UHF broadcasting band is attached in **Annex 1.** |
| Proposal:  |
| ECC is invited to consider and endorse the activities of TG6. ECC is also invited to give guidance on a possible coordination with the related activities in the European Union.  |
| Background:  |
| The 34th ECC meeting approved the creation of a new Task Group on the long term vision for the UHF broadcasting band – ECC TG6. The Terms of Reference of the task group are described in ECC(13)048 Annex 15.The main objective of TG6 is to conduct studies aiming at the development of a long term vision for the UHF broadcasting band (focusing on the band 470-694 MHz) in Europe, and to prepare a draft ECC Report. |

**1. Introduction**

Two TG6 meetings took place since the last ECC meeting (35th meeting in November 2013). The 2nd meeting of ECC Task Group 6 (TG6) was held in Lisboa from 3 to 5 December 2013, and was attended by 66 participants including 21 Administrations (Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Portugal, Romania, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom), ECO and various organizations/companies.

The 3rd meeting of ECC Task Group 6 (TG6) was held in Copenhagen (Denmark) from 11 to 13 February 2014, and was attended by 67 participants including 21 Administrations (Austria, Belgium, Croatia, Finland, France, Germany, Hungary, Ireland, Lithuania, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom), ECO and various organizations/companies.

**2. Development of the draft ECC Report**

The main objective of TG6 is to conduct studies aiming at the development of a long term vision for the UHF broadcasting band (focusing on the band 470-694 MHz) in Europe, and to prepare a draft ECC Report.

Based on the layout agreed in the 1st TG6 meeting, several contributions have been received dealing with the different sections of the Report. The Working Document towards the ECC Report is contained in annex 1. The following sections highlight the main areas of work in the draft ECC Report.

**2.1 Introduction and Background**

The introduction and background chapters of the draft ECC Report were developed in both TG6 meetings. In particular, concerning the introduction section, some material was included to reflect the motivation for the studies and the creation of TG6. Two new annexes were introduced in the draft ECC Report, one with the ToR of TG6 and the other with information about the regulatory framework for the provision of audiovisual media services.

In the course of the discussions it was emphasized that, taking into account the ToR of TG6, there is a need to define which kind of statistics/indicators are needed as well those indicators are important to monitor and check the assumptions on expected developments. For this purpose a new section addressing “indicators” was also agreed.

Other modifications in the background section were also discussed and agreed, taking specific examples provided by some administrations.

**2.2 Technology, Service and Network Evolution**

The group considered several documents for this Chapter. The group did not have time enough to review thoroughly the whole chapter. The meeting agreed that a more coherent structure was needed for the current chapter as contained in the draft report. Consequently, it was agreed that this Chapter will be developed further via the ECO Forum before the next TG6.

**2.3 Scenarios and Assessment**

The core of the discussions in the TG6 meetings has been focused in the Scenarios and Assessment sections. Several input documents related to these sections have been received. Most of the input documents related to items falling into the following categories: definitions and classification of scenarios, scenarios and their assessment, and studies. The working document towards the ECC report on the TG6 studies was further updated on the basis of input contributions and related discussions. The meeting succeeded to consider the descriptive part of each scenario listed in the working document. However, the assessment part was considered for few scenarios only. This work will continue at the next meeting. The parts of the working document that could not be considered at this meeting are marked with corresponding editorial notes.

**2.4. The Draft ECC Report**

With the inclusion of the new chapter “indicators for the monitoring of expected developments” in the 3rd meeting of TG6 the draft ECC Report has now a new renumbering, namely:

1. Introduction;
2. Definitions;
3. Background;
4. Technology, service and network evolution;
5. Indicators for the monitoring of expected developments;
6. Long term vision issues;
7. Recommendations;
8. Conclusions.

The group has successfully achieved the target, as agreed in the 1st TG6, to finalize in the 3rd meeting the scenarios that will be further assessed. TG6 identified the following scenarios for the development of the 470 – 694 MHz band in the long term:

| **No** | **Service** | **Terminal/user device** | **Usage environment** | **Delivery** |
| --- | --- | --- | --- | --- |
| **Technology** | **Network** |
|  | Standalone scenarios |
| 1 | AV linear, AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor | DTT | HPHT |
| 2 | AV linear,AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor | DTT | LPLT |
| 3 | AV linear,AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor | DTT (outdoor), WiFi (indoor)2 | HPHT/LPLT |
| 4 | AV linear,AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor | DTT (outdoor), WiFi (indoor), DTT chips inside UE | HPHT/LPLT |
| 5 | AV linear,AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor | LTE Broadcast | HPHT |
| 6 | AV linear,AV non-linear | Large screen, small screen/tablet | Stationary, portable outdoor/indoor,mobile | LTE Broadcast | LPLT |
| 7 | AV linear,AV non-linear,Data | Large screen, small screen/tablet | Stationary, portable outdoor/indoor, mobile | LTE Broadcast | LPLT |
| 8 | AV linear,AV non-linear,Data | Large screen, small screen/tablet | Stationary, portable outdoor/indoor, mobile | DTT, LTE | HPHT/LPLT |
| 9 | AV linear,AV non-linear,Data | Large screen, small screen/tablet | Stationary, portable outdoor/indoor, mobile | LTE, LTE Broadcast | HPHT/LPLT |
| 10 | AV linear,AV non-linear,Data  | Small screen/tablet | Stationary, portable outdoor/indoor, mobile | LTE | LPLT |
| 11 | Smart data quantities | Smart communication unit | Stationary, portable outdoor/indoor, mobile | Dynamic cognitive communication | HPHT/LPLT |
|  | Scenarios to occur in combination with Scenarios 1-11 |
| 12 | PMSE AV content production | PMSE equipment | Portable, mobile | Digital/Analogue | Low power links |
| 13 | Public safety | Voice and data, remote video camera | Handheld portable, vehicle mounted, stationary  | LTE | LPLT |

Some further amendments maybe expected in the description of the scenarios as it was not possible to agree the text in all of them.

**ECC is invited to note the progress of the work in TG6.**

**3. Organization of the work**

In order to better organize the development of the draft ECC Report, TG6 has decided to split the work in three main streams (Sub working groups), dealing with the following specific sections of the draft ECC Report:

* **SWG Intro/Back:** Introduction and Background (Chapters 1 and 3 of the draft ECC Report), chaired by Mr. Bruno Espinosa (ECO);
* **SWG Evolution:** Technology, Service and Network Evolution (Chapter 4 of the draft ECC Report), chaired by Mr. Jim Connolly (IRE);
* **SWG S&A:** Scenarios and assessment (Chapter 5 of the draft ECC Report), chaired by Mr. Alexandre Kholod (SUI).

Taking into account the amount of work involved until the completion of the Report and the time pressure to finalize the TG6 tasks, it was decided that progress on the work needs to be made until the next meeting. In that regard, TG6 decided to create three groups in the ECO Forum as illustrated in the following Figure, to deal with specific issues of the draft ECC Report.



TG6 members are invited to participate in the ECO forum groups, namely to further develop the draft ECC report.

**4. Other related activities in the EU**

In the course of the last TG6 meetings, the activities ongoing in EU related to the TG6 tasks were noted. In particular, special attention was given to the mandate of the High Level Group (HLG) on the future use of the UHF band (470-790 MHz) and to the study on “challenges and opportunities of broadcast-broadband convergence and its impact on spectrum and network use”. In the 3rd TG6 meeting it was also noted that the RSPG work programme addressed therein the “long term strategy on the future use of the UHF band (470-790 MHz) in the EU”.

The TG6 participants requested clarification on how the coordination of the activities sponsored by the Commission with the ones ongoing in CEPT, namely in TG6 will be handled. It was pointed out that an overlap of activities with TG6 needs to be avoided and that it would be desirable that the tasks under development in TG6 could take advantage of the work ongoing in the EU. Overall, more detailed exchange of information on these activities is welcomed in TG6.

**ECC is invited to give guidance as appropriate to TG6 on the above issues.**

**5. Data and venue of the next meeting(s)**

The next meetings of TG6 are scheduled as follows:

* ECC TG6 - M4: **02 - 04 April 2014, ECO, Copenhagen,**
* ECC TG6 - M5: **13 -15 May 2014 [tbd]**

**Annex 1**: Working document towards ECC Report on Long Term Vision for the UHF broadcasting band