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| To:  Steve Green  ECC PT1 Chairman  Email : [steve.green@ofcom.org.uk](mailto:steve.green@ofcom.org.uk) |  | ECC/WG SE/STG |
|  | | 09 June 2017 |
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**Subject: 5G implementation in SEAMCAT**

Dear Steve,

First of all, thank you for your liaison statements on 28th of April (document STG(17)075) and 31st of May 2017 (document STG(17)092).

STG would like to inform PT1 that the group has continued the discussions on the implementation of 5G systems in SEAMCAT.

With regards to a possible revision of Recommendation ITU-R M.2101, STG took note of the information provided by PT1 and that PT1 will contribute to ITU-R SG5 at the appropriate point of time to reflect the improvements to the Recommendation, as suggested by STG, for sections 3.3, 3.4.1, 3.4.2 and 8.

* **Definition of sector, cell and cell radius in Report ITU-R M.2292 and in ITU-R Recommendation M.2101.**

STG has updated the SEAMCAT Handbook (ECC Report 252) to reflect the different definitions of sector, cell and cell radius. This will appear soon in the online version of the handbook.

* **Simulation Methodology for IMT downlink and uplink in Recommendation ITU‑R M.2101, section 3.4.**

In order to use time efficiently and to provide a draft implementation of 5G systems in SEAMCAT, at its 56th meeting STG decided to start the work based on the algorithms for IMT downlink and uplink according to the revised flowcharts which have been liaised to PT1.

In the meantime, before the next PT1 meeting in September 2017, if the correspondence group established by PT1 to deal with SEAMCAT issues has further information, it could be liaised directly with the STG Chairman who will keep his group informed.

* **BS and MS activity factor in Recommendation ITU-R M.2101 in sections 3.4.1 and 3.4.2.**

STG took note of the confirmation by PT1 that the activity factors for uplink and downlink need to be aligned and therefore STG will implement in SEAMCAT the same values for uplink and downlink.

* **Definition of the power control algorithm in Recommendation ITU-R M.2101, section 4.1.**

STG took note to reference to the algorithm describing the power control (i.e. 3GPP TS 36.213).

* **Determination of aggregate interference in Recommendation ITU-R M.2101, section 7.**

STG confirms that the implementation in SEAMCAT of aggregate interference is aligned with the description in Recommendation ITU-R M.2101, section 7.

* **Wrap around technique in Attachment 2 to Annex 1**

STG would like to clarify that the definition of wrap around in Recommendation ITU-R M.2101, which defines the MS as being located inside the central cluster but connected to one of the BS outside the central cluster, is well aligned with the current implementation in SEAMCAT.

Regarding the option to locate the reference cell at the left or at the right of the network edge, STG took note of the view of PT1 and will consequently deactivate these options when selecting the wrap around in the upcoming official version of the software.

* **Number of dropped MSs in section 3.4.1 footnote 2.**

STG took note of the view of PT1 that the parameter “OFDMA capacity” could be suppressed in OFDMA UL and DL systems, leading to an effective number of simulated MS equal to the number of active MS (i.e. K=1).

After some investigations, STG can confirm that this parameter does not impact the simulation results therefore can be suppressed from SEAMCAT. Nevertheless, STG will await a final confirmation from PT1 to do that in the upcoming official version of SEAMCAT.

STG looks forward to continuing the cooperation with PT1.

Best regards,

José Carrascosa

STG Chairman

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