**3GPP TSG-RAN WG2 Meeting #116 Electronic DRAFT R2-210xxxx**

**Elbonia, 01 – 12 November 2021**

**Title: [DRAFT]** LS on MPE information signalling

**Response to:** -

**Release:** Release 17

**Work Item:** NR\_FeMIMO-Core

**Source:** Nokia [TSG RAN WG2]

**To:** RAN1

**Cc:** RAN4

**Contact Person:**

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**Attachments:** -

**1. Overall Description:**

RAN2 has discussed the RAN1 parameter list for the Rel-17 FeMIMO WI and noted that there are new signalling aspects for the MPE RRC configuration and MAC CE signallling (i.e. P-MPR reporting in MAC CE for multiple beams according to RRC configuration) as per below:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **WI code** | **Sub-feature group** | **Parameter name in the spec** | **New or existing?** | **Description** | **Value range** | **Per (UE, cell, TRP, …)** | **UE-specific or Cell-specific** | **Comment** |
| NR\_feMIMO-Core | MultiBeam | mpe-Reporting-FR2-r17 | New | Indicates whether the UE shall report Rel17 MPE P-MPR in the PHR MAC control element, as specified in TS 38.321 [3] - This can be in PHR-Config (up to RAN2) 0=no P-MPR report 1=P-MPR report | {0, 1} | Per UE per cell per BWP  in [PHR-Config] | UE-specific | It can be discussed in RAN2 whether a new parameter/structutre is needed or the associated legacy parameter/structure for PHR reporting can be directly reused |
| NR\_feMIMO-Core | MultiBeam | numberOfN | New | Number of reported P-MPR values  In addition to the existing field in the PHR MAC-CE, N≥1 P-MPR values can be reported P-MPRs. This can be in PHR-Config (up to RAN2) | {1,2,3,4} | Per UE per cell per BWP  in [PHR-Config] | UE-specific | It can be discussed in RAN2 whether a new structutre is needed or not. If not, this parameter may be included as a new Rel-17 parameter in the legacy PHR IE structure |
| NR\_feMIMO-Core | MultiBeam | mpe-ResourcePool | New | SSB/CSI-RS resource pool for P-MPR reporting | TBD | Per UE per cell per BWP | UE-specific | Detailed design (location, etc.) is up to RAN2 |

RAN2 would like to understand if these MPE reporting changes would apply to both inter-cell beam management (ICBM) and multi-TRP (mTRP) framework?

**2. Actions:**

**To RAN1 group.**

**ACTION:** RAN2 respectfully asks RAN1 to indicate whether the Rel-17 MPE signalling is applicable to both ICBM and mTRP.

**3. Date of Next TSG-RAN WG2 Meeting:**

3GPP RAN2#116bis-e from January 17, 2022 to January 25, 2022 Electronic Meeting

3GPP RAN2#117-e from February 21, 2022 to March 03, 2022 Electronic Meeting