**Proposal 1.A**: On Rel.17 unified TCI framework, support common TCI state ID update and activation to provide common QCL information and/or common UL TX spatial filter(s) across a set of configured CCs:

* The above applies to intra-band CA
* The above applies to joint DL/UL and separate DL/UL beam indications
* Just as Rel.16, the RS in the TCI state that provides QCL-TypeA shall be in the same CC as the target RS
* The common TCI state ID implies that the indicated TCI states should be configured with the same RS to provide QCL Type-D indication and the same RS to determine UL TX spatial filter across the set of configured CCs
* FFS: The above also applies to inter-band CA
* FFS: TCI state pool for CA
  + Opt-1: sharing a single RRC TCI state pool for the set of configured CCs, e.g., cell-group TCI state pool, or reuse TCI state pool for PDSCH in a source cell;
    - FFS: Whether it is possible that a single TCI state in the pool includes all source RSs from different CCs
  + Opt-2: configuring RRC TCI state pool per individual CC
* FFS: Whether the R17 common beam update across multiple CCs can also apply to beam indication for single channel (e.g. PDSCH only, single CORESET) or a subset of channels

**Proposal 1.B**: On Rel.17 unified TCI framework:

* A joint DL/UL TCI state pool is used for joint DL/UL TCI state update (beam indication).
* FFS: Whether the same joint DL/UL TCI state pool or two separate DL/UL TCI state pools will be used for separate DL/UL TCI state update (beam indication)
* Note: Here, TCI state pool refers to a pool configured via higher-layer (RRC) signaling

**Proposal 2.A**: On Rel.17 enhancements to enable L1/L2-centric inter-cell mobility:

* ...
* FFS: The following enhancement scope is assumed by RAN1:
  + Whether RRC reconfiguration signaling is needed or not when a TCI associated with non-serving cell RS is indicated
    - A non-serving cell RS is an RS that is or has an SSB of a non-serving cell as direct or indirect QCL source
    - This implies no C-RNTI update when UE receives DL channel RS associated to non-serving cell RS as QCL source.
  + Whether some RRC parameters need to be updated without additional RRC signaling, e.g. some RRC parameters are pre-configured, which are associated with TCI states with neighbor cell RS as QCL source
  + The above assumption to be verified by RAN2
* ...

**Proposal 5.A**:  On UE reporting for MPE mitigation for Rel.17, investigate and, if needed, specify the following:

* ...
* ...
* Any additional reporting content: down-select from the following in RAN1#104-e
  + Alt0: no additional reporting content
  + Alt1: Additional reporting content is included (for example P-MPR + L1-RSRP, virtual PHR + L1-RSRP, L1-RSRP/SINR with and without MPE effect, virtual PHR, P-MPR or virtual PHR + CRI/SSBRI, estimated max UL RSRP)
    - Note: Other options are not precluded
    - FFS: For each option, whether the report is triggered by UE or configured by NW

**Proposal 6.A**: Investigate and, if needed, specify *at least* the following enhancements for beam refinement/tracking in Rel.17 (with lower priority than the other five issues and later starting point during the WI phase):

* Group 1: Beam measurement and reporting enhancement via RACH (e.g. RO for measurement and MSG3 for reporting)
* Group 2: Improving efficiency (latency and/or overhead) of beam refinement assuming the unified TCI framework (issue 1):
  + Enabling joint DL TX and RX beam refinement/tracking (P2+P3)
  + Additional UE report to aid P1/P2/P3 related measurement/report configuration (triggering frequency or periodicity)
* Group 3: Beam management with reduced DL signaling assuming the unified TCI framework (issue 1):
  + Dynamic beam update based on beam report (without beam indication)
  + Dynamic beam measurement and report triggered by beam indication (without CSI-RS/CSI triggering)
  + Configuring/indicating to UE multiple SSBs for beam tracking
  + Semi-static/pre-planned (RRC based) beam transition (for, e.g. isolated HST deployment)
  + Reducing activation delay of TCI states (e.g. via storing QCL properties of a subset of source RSs for a time period)

Reduce the scope of investigation (including down selecting or combining) within and/or across the three groups in RAN1#104-e. Considering the dependence on issue 1 and 3, the work on issue 6 should be preceded by sufficient maturity of issue 1 and 3.