EPIC: HIE-ISOLDE working group report

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EPIC Workshop – 04/12/2019

Summary of discussion

- Priority from working group:
  1. Room temperature upgrade to allow for A/Q < 5.5
  2. EBIS developments, we take as granted that developments are on-going
  3. **Reach 10 MeV/*u*** for all masses, requires CM5 under realistic conditions.

- Parallel operation is a must to give HIE-ISOLDE full exploitation.
  - No compromise in the GLM/GHM style
  - Separate ion sources, separators and beam line desired

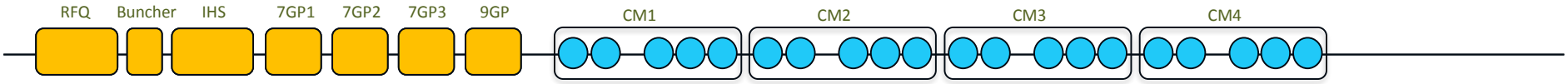
- Buncher comes with room temperature upgrade
  - Chopper must be inlcuded, but high energy version is possible

- Storage ring brings new physics opportunities and beam quality
  - Best to deal with it as an independent project from the EPIC shopping list
  - Bypass line to allow all experimental stations to take direct beam

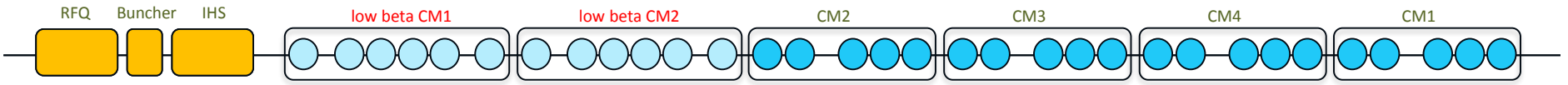
- Purification gains from MR-TOF or upgraded REX-TRAP
  - Manpower and resource intensive, but on the wish list.

Different upgrade options:

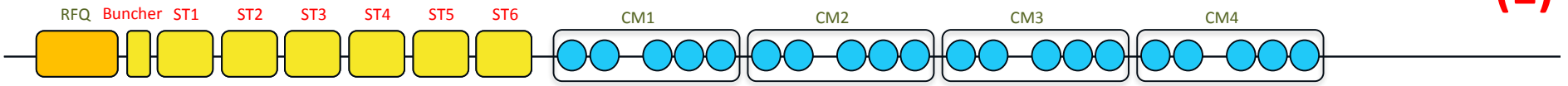
REX/HIE-ISOLDE today:



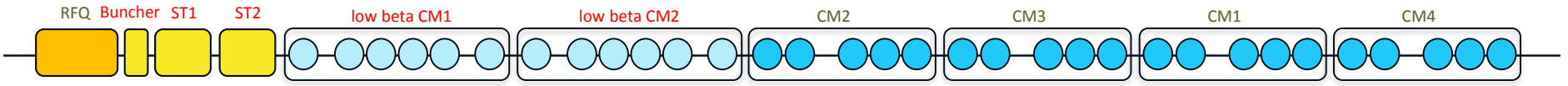
HIE-ISOLDE phase 3:



Room temperature upgrade of REX: **(1)**



HIE-ISOLDE phase 3 + replacement of IHS structure:



Room temperature upgrade of REX + fifth high-beta cryomodule: **(3)**