

Comments/Questions for giving input from WG1 to decision items (20050821 K.Kubo)

- straight or follow earth's curvature?
Can we say any choices are acceptable from beam dynamics point of view?
(Decision will come from alignment and/or cryomodule construction?)
Or do we still need more study?
- DR location: 1st half tunnel, 2nd half, ceiling, under cryomodules, separate tunnel
We should consider low emittance transport (from DR to BC, including possible turn-around). Probably there is no problem (can we say this now or do we need specific study before we give some comments?)
- cavity shape/iris size
WG5 should calculate wakefunctions for each cavity shape.
For short range transverse wake, we can have rough scaling to iris size.
For given wakefunctions, only a little work will be necessary to tell whether they are acceptable or not (or give alignment tolerances).
- Number of bunch compressor stages
Based on our discussion before and at Snowmass, I think, we can agree to recommend the two stage BC.

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- Have 180 turnaround bunch compressor after DR?
We should recommend to have turnaround, unless extremely stable DR extraction (kicker) is guaranteed.
- how many diagnostic sections in linac?
? Need to work, or have someone done?
- MPS design
?
- tail folding octupoles in BDS?
I think yes. Are there any disadvantage?
- collimation strategy - passive? Order of E and beta
Are there any reason that collimation of WG4's "strawman design" should be changed.
- linac focusing strength to optimize wakefield and emittance growth
This will depend on cavity iris size.
We can agree how to decide the recommendation.
- reentrant or cavity BPMs
?