

Meeting Minutes of the 35th FCC-ee MDI meeting and 6th FCCIS WP2.3 meeting

Indico: <https://indico.cern.ch/event/1087021/>
When: 13.12.2021 16:00-18:00 CET

Agenda

Presenter	Title
M. Boscolo	Summary from the FCCIS collaboration meeting and steps going forward

1. General Information

M. Boscolo opens the meeting asking for comments on the minutes of the last meeting (11.10.2021). With no questions or remarks the minutes are approved.

M. Boscolo then proceeds to show a summary of the MDI related discussions from the FCCIS two-weeks collaboration meetings and some follow-ups on these topics. A draft table for the FCC-ee MDI activity plan is presented, containing 5 main ‘tasks’.

An overview of the several presentations related to these tasks during the FCCIS workshop is presented.

As follow-ups on Task 1, the MDI PBS presented by **L. Pellegrino** will be integrated in the general FCC PBS, and **R. Losito** is organising a meeting on this topic to set-up a uniform PDM in accordance with CERN standard.

Some discussion follows about the mechanical model.

M. Koratzinos reminds that the shorter bellow is not possible as it is presented, as the emittance blow-up would be a factor 2 higher. **L. Pellegrino** explains that the proposal is just a reminder of a known problem, and that common effort is necessary to fit everything in that region.

M. Koratzinos points out that testing cold magnets is indeed foreseen, but there is not a date fixed at the moment.

M. Koratzinos says that the current design for QC1 fits the 100mrad cone, as it was one of the constraints used during design. **M. Boscolo** answers that the bare design fits but the services and cables are not taken in consideration. **M. Koratzinos** says that cables will go outside the cone so it shouldn't be a problem. **F. Zimmerman** says that the current design fits in the current design for the cryostat, which is thinner than a “conventional cryostat”. **M. Koratzinos** says that the cryostat he considered is realistic.

M. Koratzinos says that the current design is already SC, so the sentence in slide 12 is misleading. **T. Raubenheimer** comments that that sentence might be related also to the mechanical implementation requirements, as outcome of the internal discussion reported in slide 12. **M. Boscolo** explains that more than “switching to a SC design”, it would have been more correct to

“progress with the SC design”, which will also include a more detailed description of both the magnet and cryostat also on a mechanical level for the integration.

F. Zimmerman comments that the PBS could be extended to include some detectors like BPM, a polarimeter and Beamstrahlung monitor. **M. Boscolo** says that the Beamstrahlung may be outside the current mechanical model of the MDI developed by **L. Pellegrino**. **T. Raubenheimer** says that polarimeter is responsibility of the calibration group, but it’s true that all these systems must interface with each other. **L. Pellegrino** says that the PBS which he presented is just a starting point and is yet to be completed and implemented with comments.

Participants

A. Blondel, M. Boscolo, L. Brunetti, H. Burkhardt, G. Chachamis, T. Charles, A. Ciarma, M. Dam, F. Franesini, F. S. Galan, M. Hofer, B. Humann, P. Janot, M. Koratzinos, E. Montbarbon, C. Niebuhr, A. Novokhatski, B. Parker, L. Pellegrino, E. F. Perez, F. Poirier, T. Raubenheimer, M. Sullivan, L. WatreLOT, F. Zimmerman

Minutes reported by A. Ciarma