

30 participants: Chris Rogers, Daniel Schulte, Akira Yamamoto, Roberto Losito, Akira Sato, Alan Bross, Alex Bogacz, Angele Faus-Golfe, Antoine Chance, Anton Lechner, Christian Carli, Chris Densham, Diktys Stratakis, Eliana Gianfelice, Scott Berg, Jingyu Tang, Katsuya Yonehara, Koichiro Shimomura, Shinji Machida, Alexander Zlobin, , Shinji Machida, Marco Calviani, Roberto Losito, Nadia Pastrone, Roger Ruber, Simone Gilardoni, Rob Ryne, Natalia Milas, Alexej Grudiev

Daniel introduced the latest status of the LDG. He pointed out that we have a deadline of interim report on 16th July. That a new skeleton for the roadmap has been sent out 30 minutes before the meeting start. There was discussion of how the test facility design fits into the LDG interim report and strategic discussion of the muon collider R&D programme. Two design studies in parallel – test stand CDR and facility theoretical design. We will need to decide at what level we need to get the R&D done to convince “most” people that the facility can be built. This will be presented in the plenary in the second day, and in the third day we will start to build a work plan.

Daniel proposed four categories of “work packages” - WPs including hardware; paper studies using synergies; other theory studies; test facility design. Marco pointed out that HiRadMat is not the only hardware thing we will do for targets, and may not need beam. Daniel agrees. Tord noted that the proton accelerator needs to be separate to the muon accelerator. Daniel agrees. Scott reminds us that we need to focus on feasibility. Daniel agrees. He thinks that writing things in terms of R&D objectives may be better and fit better with the funding agency, more maleable. Roberto does not see that neutrino radiation mitigation requires hardware studies. Daniel says he will certainly consider. It’s a good point. He is trying to set out a “light weight” arrangement so that it can be moved if needed. Aim is for first and second day to feed into third day. Antoine points out that there should be an integration activity including e.g. costing. Daniel agrees. Alexej asks how should the work be distributed. Daniel agrees it can happen in the working groups if appropriate. Nadia asked about how the priorities affect the discussion. Daniel agreed yes priorities needs to be included. Also first idea of resources needed. Tord asked that paper studies be called design studies. Suggest that the third group and second group be merged. Daniel points out that the second group is underlying technology that may be delivered elsewhere while the third group is more designs that will be delivered by the muon collider colleagues.

Daniel noted that there will be a meeting on LDG on Friday. Also that there will be a TIARA call on test facility. It seems that there will be a need to do a submission on muon collider. There will not be money outside EU and affiliates. Maximum funding is 3 MEuro over 3 years. Memorandum of Collaboration is now ready. Defining how to handle it at CERN e.g. who signs it/etc. Daniel will distribute the Memorandum of Collaboration. University will sign it. Not legally binding except some details e.g. need insurance to travel to CERN. Rob asked about feedback from DoE. Mark says we are not allowed to sign until DoE give go ahead (i.e. Snowmass/P5 process concludes). Daniel asks if the TIARA study may help – it gives some official listing for example. Also Daniel notes that collaboration board will invite observers, even assuming that they are not formal collaborators.

Daniel listed potential work packages for the demonstrator study. Donatella asked if we should consider a detector for the test facility. Daniel says yes the detector community may be able to help. Tord asked about the proton facility – Daniel

We went on to describe the detailed agenda. Monday will be mostly parallel sessions. Tuesday will be summary sessions. Stakeholder meeting will be on Wednesday, where we discuss the work packages, test facilities at CERN and elsewhere. Nadia proposed moving the test facility discussion to the 2nd day. Wednesday we could potentially put in a TIARA discussion.

We asked for status on each work package. Magnets did not have a representative at the meeting. High Energy Complex have defined tentative work packages; just need discussion. Proton Complex will discuss tomorrow; plan is to consolidate discussion from last time, in particular catch up on ESS activities. Beam Dynamics have had several meetings and believe things are in good shape. Radiation Protection do not yet have a detail agenda. The concept of muon beam wobbling is well advanced. May seek contribution on Civil Engineering. Also like to organise discussion with High Energy Complex and Machine Detector Interface. Machine Detector Interface had a meeting a couple of weeks ago. Focus priority on 3 TeV. Will meet again to define if need speakers. Synergy – only representative was Koichiro Shimomura – he will get in touch with the other conveners. Test facility – four or five talks are foreseen. Roberto will send a list proposing CERN-specific implementation plans. Tord will discuss ESS plans. Roberto noted the need to make a Test Facility common session. Scott asked for a Beam Dynamics and High Energy Complex joint session, also a Beam Dynamics and Cooling. Simone proposed a Proton Complex joint with Beam Dynamics.