
6th Beta-beam Task Meeting

Introduction - Status

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Where do we stand (i)

- **Month 33 in the (initially) 4-year Design study.**
- **EURISOL week in Helsinki September 2007.**
 - **Presentation on simulation tools (tracking & interaction) (EW)**
 - **Brief overview presentation on Beta-beam progress in CB (MB).**
- **Extension of the study by 6 months until end July 2009.**
 - **No additional money**
 - **Possibility to extend each task individually with given resources**
- **For the beta-beam task we extend all milestones and due dates for deliverables by 6 months.**

Where do we stand (ii)

- **No milestones in the last 6 months**
- **Next milestones due in October 2008 (i.e. months 45)**
 - **M2.3 Final design low energy ring(s)**
 - **M3.3 Study of ion acceleration in PS and SPS and potential upgrades**
 - **M4.3 Decay ring design**
- **The remaining deliverables are:**
 - **D1 Design of low energy rings**
 - **D2 Ion acceleration scenarios in PS and SPS**
 - **D3 Design of decay ring**
 - **D4 Conceptual design report for a beta-beam facility**
- **and the new due date is at the end of the study i.e. July 2009.**

Recent developments and activities

- **Production chain (target-ion source-bunching):**
 - Alternative production methods with low energy drivers
 - Talks in the first session
 - **Potential improvement for the ^{18}Ne shortfall**
- **Preparation of collaboration with University Frankfurt for beta-beam post-accelerator linac conceptual design**
- **Start of RP studies for beta-beam accelerators**
 - Presentation on RCS (ST)

Technical issues for the next months

- **Conceptual machine designs finished**
 - Optics, cycling, losses
 - Only exception is decay ring collimation
- **Completion and check of parameter list**
- **Collimation and absorbers in the Decay Ring**
 - Protection of SC dipoles
 - High power momentum collimation
 - Activities launched (CEA, CERN-AB/AT, TRIUMF)
- **Decay Ring RF system - not started**
- **Pre-design and system specifications for main technical systems on all machines**
 - Pre-designs for reports and basis for cost estimates
- **Cost estimates**

Time schedule

- **20 months left until end of the study (July 2009)**
 - **12 months until next milestones (due in October 2008)**
 - **Final design low energy ring(s)**
 - **Study of ion acceleration in PS and SPS and possible upgrade**
 - **Decay ring design**
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- **Next 12 months from previous slide**
 - **12-15 for coherency in overall design.**
 - **15 – 20 for final report & reserve.**

Other issues

- **First PhD inside the Beta-beam study**
 - **Congratulations to Antoine Chance (September 2007)**

- **Personnel change in CERN team**
 - **Markus Stockner started in September to work on DR collimation.**
 - **Adrian Fabich will stop from February 2008**
 - **Thanks a lot for the excellent work**