

Minutes from the 13th ILC@DESY General Project Meeting
on July 29th, 2005

- 1.) General Announcements by Eckhard Elsen:
 - a. Core European GDE Team has met at CERN on Monday, July 25th.
 - i. a CERN site for the ILC will be elaborated
 - ii. CERN offers the usage of the LHC project planning software tools for the use of the ILC.
- 2.) Report from Wilhelm Bialowons of the CERN Meeting:
 - a. B. Foster gave an overview of the European GDE structure
 - b. N. Walker gave an introduction on the ILC design
 - c. Wilhelm gave a talk about the TESLA costing. Especially he tried to find out which of the TESLA costs were site-depending. While some of the costs, e.g. the costs for the Linac, the Cryo, etc. are clearly site-independent, other costs like civil engineering might be different.
 - d. J.L. Baldy from CERN gave a report about the CLIC cost study:
 - i. Civil engineering cost for CLIC are above 2 GCHF, this is a factor of 2.5 above the TESLA estimates.
 - ii. The CLIC cost study foresees a laser straight tunnel, 80-100 m deep in bedrock. The need for a deep tunnel is claimed to arise from geological reasons. Wilhelm states that the situation for TESLA was not very different, but in the TESLA case a cheaper shallow tunnel was proposed. This has to be looked after.
 - iii. Tunnel costs for CLIC are a factor of 2 higher than for TESLA in spite of the smaller diameter of the CLIC tunnel (3.8m instead of 5.5 for TESLA). The reason is not understood as one would assume the tunnelling for the TESLA case to be more complex as the tunnel is floating in the ground water while it does not in the deep CLIC tunnel solution.
 - iv. A second tunnel (which might be needed in the ILC case) adds about 1 GCHF to the costs.
 - v. Cryogenics in a deep tunnel might become more complex and could increase the cost 'non negligible'.
 - vi. A laser straight tunnel will impose requirements on the cryogenics which are also not cheap.
- 3.) Report from the RHUL ILC-Europe Workshop
 - a. R. Amirikas reported on the Beam Delivery Sessions. Main focus are still the crossing angle schemes. While the 20 mrad crossing angle scheme is far advanced, the 2 mrad scheme still needs work, especially in the magnet design. The head-on collision scheme will be followed up if the physics groups claim the need for it.
 - b. K. Buesser reported on the backgrounds and beam dumps sessions. While the backgrounds for the different schemes and detectors are studied by a

lot of people, the beam dumps are still an open issue. M. Schmitz gave a detailed talk at the workshop about the studies which have been performed at DESY for the TESLA beam dumps. His conclusion was that it was not clear that a water based beam dump system for 30 MW of beam power could be handled. He reported briefly about the idea of using a 1km long Argon filled gas beam dump instead. Detailed engineering studies are however missing for this promising idea. T. Markiewicz gave the American view about beam dumps. His claim was that SLAC operates a 2 MW beam dump for the SLC. The extrapolation to 20 MW is believed to be 'not an issue' by the SLAC experts.

- c. E. Elsen reported about the source sessions: While the undulator based positron sources are well under study, a French-japanese group suggested to use Compton backscattering for the production of polarised positrons. This idea is been followed up.

4.) Status of Snowmass Planning (E. Elsen)

- a. The well known Working Group structure of the ILC workshop has been changed for Snowmass. While the WGs 1 to 6 now concentrate on technical parameters of the subsystems, 6 new so-called Global Groups have been formed. Those deal with issues which inter-relate between the subsystems, e.g. global parameters, controls, availability, instrumentation, etc. The Snowmass agenda foresees meetings of the technical Working Groups over the day while in the afternoon the Working Group participants spread out into the Global Groups. It is expected that each WG is represented in the Global Groups.

5.) Next Meetings

- a. On Friday, August 5th, there will be a ILC@DESY project meeting which concentrated on the outcome of the SRF workshop.
- b. On Friday, August 12th, there will be a "Snowmass last chance" meeting to cover up urgent odds and ends before we depart for Snowmass.