TRIAD - Costing Tools

Peter met with three people from Triad Project Management on September 24-25 for 9 contact hours. These included Richard Fischer (CEO), Spencer Curtis (VP with many years of experience developing databases for the petrochemical industry), and Kevin Long (IT – data base expert, who Triad hired from ALMA). I gave them an introduction and "take away" access to the ILC RDR estimate.

Tom Himel joined for about two hours by WEBEX for a discussion of the ILC Costing Tool Functional Requirements document.   This approach builds more complex parts out of less complex components, rather than starting with a top-down tree shaped WBS structure. We require that the tool be able to build and display a WBS-like tree structure.

There were lots of Questions and Answers. Richard Fischer reminded us that they are not building a parametric estimate. We will have to do parametric studies, e.g. varying learning curves and business models, as variant cost inputs to the tool. However, we will have variable inflation and exchange rates built into the tool from the start. There were many questions on applying TAGS for roll-ups, especially how extensive (how many levels of tags) we need.

Triad expects to finish this tool within 6 months. Barry is pushing for sooner.   We are trying to set up a webex next week where Triad will indicate what they have learned, ask more questions, and present the program plan on how to proceed, including milestones.

I sent an e-mail introduction to Lars Hagge and Triad, and sent the marked-up PowerPoint notes from the July EDMS webex to Triad. Lars will set-up a webex between Triad and DESY/EDMS next week.

CLIC-ILC Cost & Schedule Group

We will have a meeting at CERN next Friday after the CLIC Workshop. Hans Braun is the workshop chairman and will only be able to join us on Friday. Hopefully, John Carwardine and Peter will have some discussion with Sylvain Weisz and Katy Foraz during the workshop. There are strong correlations with CFS and the ILC costing at the "Technical Issues, Integration, and Cost" working group, e.g. Fabio Corsenego – Safety of Underground Structures and Jurgen De Jonghe – CERN proposal for cost estimating tool.

With Barry's approval, I gave "take-away" access to the details of the BDS-only part of the RDR cost estimate. The BDS has the closest correlation between ILC and CLIC.

Hans Braun visited John Carwardine and Peter Garbincius during a visit to Fermilab on August 18-19. We exchanged proposed WBS schemes and templates for individual parts' cost estimates. CLIC requests

four estimates for each part – for a final 500 GeV CLIC (for comparison to ILC configuration and estimate), and for the 500 GeV and 1 TeV intermediate configurations, as interim steps on the way to the final 3 TeV configuration.

We agreed to work toward a parametric model of estimating the costs of conventional room temperature magnets (Cherrill Spencer at SLAC also wanted to do something like this but has not shown anything yet). Hans sent a 1970's era (very complete and very complicated) parameterization by Giorgio Brianti, and I sent a simple power law based on weights of steel and coil by the ALS group at LBL (plus a parameterization of SC magnet costs by Bob Palmer). We also suggested that CFS and CLIC work on a common set of safety assumptions. We exchanged Fabio Cosenego's CLIC document and NFPA 520. Other than these exchanges, there has been not much progress on these tasks.

Hans asked some questions on how ILC RDR determined the electrical power requirements for conventional infrastructure systems and on how we performed the estimates. These were formulated collaboratively between Clay Corvin (SLAC - laid-off), John Pedersen (CERN - reassigned), and John Santic (Fermilab - deceased). Peter will discuss these with Hans at CERN next week.

Peter