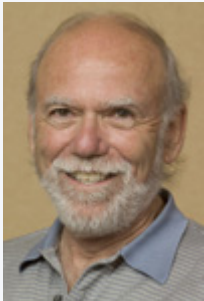


Director's Corner

21 June 2007



Barry Barish

Report of the International Cost Review of the ILC

What could be better than Paris in springtime? Maybe having enough free time to enjoy it! Last month, many of us in the GDE went to Paris (to Orsay to be precise) for our long anticipated International Cost Review of our ILC Reference Design and plans for the future. The International Linear Collider Steering Committee and the Funding Agencies for Large Colliders jointly sponsored the cost review, each selecting members to sit on the review committee. This committee of senior international reviewers held a very intensive review from 23 to 25 May. The review [report](#) was released last week in advance of the coming FALC meeting in Rome on 11 July. The result of the review was very gratifying regarding the methodology we are using, our efforts for cost reduction, and the RDR costing we have accomplished. It also presents a number of valuable suggestions for the next steps.

The Machine Advisory Committee, formed by the ILCSC, technically reviewed us four times in a little more than a year. They reviewed both our reference design and our R&D programme, both giving us some important advice and providing validation for the technical design. This helps to give us confidence that the RDR will provide a good basis to begin and guide the ILC engineering design.

It is equally important for us to have external validation of our costing method and RDR cost estimates, as we plan to optimise important cost to performance during the engineering design phase. Such an evaluation is not an easy task because of the different meaning and approaches to costing in different countries. We have tried to take these differences into account by doing our costing using an international value system, similar to what was done for ITER. This costing must be translated to any particular country's system as required.

The international cost review report provides us with important costing validation, as well as some very good advice. On our value costing of the RDR, they comment: *"The Committee notes that the GDE has reduced the ILC cost by over 25% since July 2006."* On our costing methodology, they conclude that *"the costing methodology is as good as can be done at the present time. For more accuracy on some items, further R&D and a designated site location for the ILC is needed."* They also give guidelines for our future costing directions: *"The Committee, together with the GDE, sees further possible cost savings based on expected R&D results and further optimization of the following areas: the Main Linac, RF system, Damping Ring layout, tunnel diameters, the number and size of vertical access shafts, tunnel water cooling parameters, and potential adjustments in the fabrication and construction schedule."*

This successful review was the last big step toward completing the RDR phase of the ILC design. We are now finalising the RDR report for submission to FALC in July and to ILCSC and ICFA in August. We are optimistic that the RDR will be accepted and approved, and that our plans toward producing an Engineering Design Report in 2010 will be endorsed. I will be writing much more about our goals and approach toward the EDR in the coming months.

-- Barry Barish



Lucio Rossi (CERN) and Lyn Evans (CERN LHC Project Leader), who served as chair of the ILC cost review.



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