

## Director's Corner

4 June 2009



Barry Barish

### The value of being reviewed

Last week, one of our ILC project managers, Nick Walker, wrote a guest Director's Corner about what he called the "review season" that we have recently been through, and he included some remarks about the review conducted by our Accelerator Advisor Panel (AAP), chaired by Bill Willis and Eckhard Elsen. The AAP is an "inside" panel that is augmented by some outside experts and has the mandate of continually monitoring, reviewing and giving me advice on the technical aspects of our work. Today, I add a few comments about the AAP review that complement Nick's remarks.

I direct my weekly column at both our broad ILC NewsLine readership and our core Global Design Effort groups. Serving both audiences presents me with a bit of a balancing act and as a result some of my articles are aimed primarily at our internal audience and others more toward our broad readership. I also invite one member of our GDE Executive Committee (EC) to write a guest Director's Corner the last Thursday of each month to provide our ILC readership with other points of view from our senior leadership. In that spirit, I never suggest topics to the guest authors and as a result I am sometimes surprised by their guest columns.

Last week, the guest Director's Corner was written by Nick Walker on the "review season." When I first saw his title, I thought I better choose a different subject for this week. But, after reading his column, it reminded me how different our perspectives are, especially on the AAP review. Nick's column is coming from the point of view of a project manager who is being reviewed, while mine is coming from someone soliciting in-depth technical assessments and advice.

In Nick's column he made the following interesting statement: *"As anybody who has been involved in such reviews will tell you, the greatest benefit to those being reviewed is in the preparation itself."* He also pointed out that international reviews (like the AAP review) are important for accountability of the entire effort being reviewed, something that cannot be provided by the regional funding agency reviews. What Nick did not discuss in his nice article is the actual content of the AAP review report and how it may affect what we do.

To follow up, I briefly focus today on the type of recommendations made to me in their report. The report has extensive discussions, conclusions and recommendations regarding our work and plans. We will now open a dialogue with the AAP on some of the key issues brought out in their report and work interactively with them over the coming months to best take into account their concerns and recommendations. Below, I briefly single out a few specific recommendations to illustrate how they will influence work on our side, including ongoing discussions on these topics with the AAP.

**1) Management and communication:** The AAP comments that the project managers should *"actively and visibly (to the GDE team at large) rebalance the objectives so that they are more focused on the milestone-related goals and less emphasize an ever broadening R&D program."* This recommendation brings out one of the most difficult and tricky problems we have in developing our ILC design. Much of our efforts are within large laboratories and are heavily influenced by the labs' own priorities and programmes.



Eckhard Elsen, co-chair of the AAP

Support in these labs is most natural for R&D on their test facilities, while this recommendation points out the need to mobilise more laboratory support for our actual design effort. This is a problem we are aware of and their comment serves to support our continuing efforts (and struggles) in this direction.

**2) Plug compatibility:** *"The AAP fully supports the plug-compatibility concept for the SCRF R&D and suggests introducing an element of competition by maintaining a score list of advantages and disadvantages of individual design variants for cavity, coupler and tuner."* The AAP has been very interactive as we have developed a plug compatibility concept and their support of the concept helps validate the philosophy and approach we have taken during the R&D phase. Their new suggestion is to competitively compare variants on the design, meaning that now we will need to explore with them how this might be practical and useful. They also comment on or question how plug compatibility will work during the construction phase, and even with all the uncertainties as to where and under what organisational arrangements the ILC will be built, we must address that issue soon, in order to be best prepared with realistic plans for industrialisation, construction and even operations.

**3) Electron cloud:** *"The AAP would like to see a plan laid out showing how the damping ring group plans to arrive at a decision for the viability of the ILC damping ring choice with respect to electron-cloud immunity."* We are gratified that the AAP endorsed the electron cloud programme on CEsrTA, and we note their urgings that we strive toward reliable inputs for the simulations that will be needed to extrapolate to ILC parameters.

There is much more in the AAP report, but this gives a sense of the type of useful comments they are giving us. We look forward to working very interactively with the AAP over the coming months to address some of the key issues they raise. I expect that such continuing interactions between the AAP and project management, even between reviews, will enable us to work the identified issues most productively. This is another innovation of our AAP internal review process that will make for high quality in-depth AAP technical inputs to help guide our efforts towards the ILC.

-- Barry Barish



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