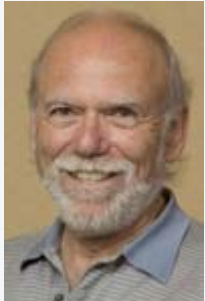


## Director's Corner

7 February 2008



Barry Barish

### US Budget: Reviving the ILC R&D programme

President Bush released his budget request for the US fiscal year 2009 (FY09) earlier this week. The three-trillion dollar budget proposal contains increases for research in the physical science in the US. The National Science Foundation (NSF) budget is to be increased by 14 percent, the National Institute of Standards and Technology (NIST) budget by 22 percent and within the DOE, the Office of Science budget is proposed to be increased by 19 percent. High-energy physics, which was cut by the FY08 Omnibus Bill to 695 million dollars, is increased in the proposed FY09 budget to 805 million dollars. The ILC R&D effort, which had effectively been zeroed out by the Omnibus Bill, is to be restored to 35 million dollars in the new budget proposal.

This sounds like encouraging news, but it is just the first step in the US budget process. As we have seen the past two years, it is subject to major changes in the Congressional process. The language used in the budget proposal is important because it frames the discussions to follow in Congress. The language supporting the 35-million dollar ILC request is the following:

*"The ILC is considered by the world-wide high energy physics community as the successor facility to the LHC, and essential for advancing scientific progress at the Terascale. In FY 2007, the ILC international collaboration under the auspices of the International Linear Collider Steering Committee, and the direction of the Global Design Effort (GDE), completed a detailed review of the R&D to be accomplished world wide, with milestones and priorities for that work. The FY 2008 Energy and Water Development and Related Agencies Appropriations Act resulted in sharply reduced funding for ILC R&D. In response, the FY 2009 budget supports a U.S. ILC R&D program with reduced scope compared to FY 2007, but addressing priority areas identified by the global R&D plan, and focused on topics for which the U.S. has unique expertise. Accelerator efforts will be centered on R&D for systems associated with the generation and maintenance of very bright particle beams such as electron sources, damping rings, beam dynamics, and beam delivery. Support will also be provided for development and prototyping of high level RF equipment and development of components associated with the main linac, including ILC cryomodules. Where appropriate, directed R&D aimed at cost reduction of present baseline systems and developing alternate low-risk components will be undertaken."*

The proposed 35-million US ILC R&D budget is consistent with the revised plan we have been developing in the Global Design Effort in response to the UK and US budget actions. Our new plan is presently under discussion inside the GDE and by our various oversight committees. Our new plan for the next ILC design phase includes strict prioritising, some stretch-out in timescales, and some reductions in duplication and scope of this phase of our work. If the proposed budget goes through, the US could continue as a significant partner, although with a more selective programme. Finally, I should note that the NSF is also making very important contributions to the US ILC R&D efforts, especially through the very high-priority electron cloud work at Cornell.

I very much hope that FY09 will result in a much needed large boost for the physical sciences in the U.S., including restoration of ILC R&D support. However, despite the strong Congressional support for increasing the physical sciences, the fate of the President's budget in this election year is uncertain. Nevertheless, this first crucial step is very encouraging!

-- Barry Barish