

Around the World

From Fermilab Today: Citizens' task force delivers recommendations



ILC Citizens' Task Force member Herman White hands over the report produced by the task force to Fermilab Director Pier Oddone at a dinner celebration on June 3.

When Fermilab reached out to neighbors five years ago to engage community members in laboratory decision making, some people in science and some neighbors doubted it would work.

But last week when the second of two task forces presented its recommendations, both sides said the partnership was invaluable and they would do it again.

"It was one of the best experiences I have had in my life," said Craig Jones, a former opponent of the Superconducting Super Collider. Jones served on the initial [Community Task Force](#) and the subsequent [ILC Citizens' Task Force](#), which presented its final report to Fermilab Director Pier Oddone June 3.

-- Tona Kunz

Calendar

Feature Story

New forum for promotion of advanced accelerator technology and science meets in Tokyo

Establishing an industry-government-academia alliance towards the ILC



The Forum's board members at the press briefing: Nishioka, Suzuki, Yosano and Koshiba.

On June 11, the executive officers of leading Japanese companies, important dignitaries, and a physics Nobel Prize winner gathered at Kasumigaseki, Tokyo, Japan to celebrate the establishment of a forum for promotion of advanced accelerator technology and science (official English name yet to be determined). The forum aims to develop the structure which will be the core of the industry- government-academia alliance to pursue R&D for next- generation accelerators. The organising committee was formed by Mitsubishi Heavy Industrial Ltd. (MHI), Toshiba, Hitachi, Mitsubishi Electric Co., and KEK. Companies from across various industries, laboratories and universities — a total of 76 bodies — participate in the association, and the number of participants is expected to increase.

-- Rika Takahashi

In the News

From *Sunday Telegraph*
15 June 2008

Stephen Hawking warns Government over 'disastrous' science funding cuts

... Professor Hawking, Britain's highest profile scientist, has taken the unusual step of releasing correspondence accusing ministers of errors in their calculations on spending and warning that several university physics departments may be forced to close.

[Read more...](#)

Director's Corner

Hot off the press: Technical Design Phase ILC R&D plan



The ILC R&D Plan is released.

"The word draft has been removed!" announced Project Manager Nick Walker during the GDE meeting at Dubna, Russia. This seemingly innocent statement represents

perhaps the most important accomplishment and milestone since completing the ILC Reference Design Report (RDR) last summer. The R&D [plan](#) outlines our strategy to advance the ILC design effort to the point where we will be ready to propose a robust construction project in a few years. It gives details on the R&D efforts, major goals, resources and schedules. This plan will be a "living document" that we intend to update periodically in order to make it an accurate reflection of our efforts as they develop.

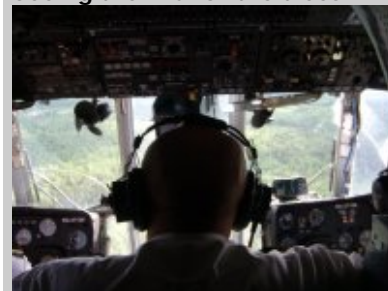
[Read more...](#)

-- Barry Barish

Director's Corner Archive

Image of the Week

Seeing the ILC for the trees



The GDE meeting in Dubna had an adventure in store for the civil engineering experts, some members of the Executive Committee and local scientists: they boarded a helicopter to fly over the potential Russian site for the ILC. The main population of the area is trees — there are hardly any roads. Vic Kuchler took this shot of the site over the pilot's shoulder.

Upcoming meetings, conferences, workshops

[Polarized Positron for Linear Colliders Workshop \(Posipol 2008\)](#)

Hiroshima University, Japan
16-18 June 2008

[European Particle Accelerator Conference \(EPAC'08\)](#)

Genoa, Italy
23-27 June 2008

[Joint CEsrTA Kickoff Meeting and ILC Damping Rings R&D Workshop \(ILCDR08\)](#)

Cornell University, USA
8-11 July 2008

[34th International Conference on High Energy Physics \(ICHEP'08\)](#)

Philadelphia, USA
29 July - 5 August 2008

Upcoming schools

[The second Trans-European School for High Energy Physics \(TES-HEP\)](#)

Buymerhovka, Sumy region, Ukraine
3-9 July 2008

[Third International Accelerator School for Linear Colliders \(2008 LC School\)](#)

Oak Brook, Illinois, USA
19-29 October 2008



= Collaboration-wide Meetings

[GDE Meetings calendar](#)

[View complete ILC calendar](#)

From *Sunday Times*
15 June 2008

Stephen Hawking: ministers' £80m error puts science at risk
Leading physicist reveals he turned down knighthood
[Read more...](#)

From *Sunday Times*
14 June 2008

Nobel prize physicist in the making
Peter Higgs on the verge of scientific superstardom
[Read more...](#)

From *Polskie Radio -Jedynka*
13 June 2008

Polish radio reports on ILC during ECFA2008 meeting in Warsaw
Listen to the broadcast [here](#) (in Polish).

Announcements

R&D Plan online

The Project Managers have released their R&D Plan for the coming years. Download the [report](#) and read more about it in the Director's Corner.

arXiv preprints

[0806.2150](#)

Hunting the lightest lightest neutralinos

[0806.1760](#)

Charge asymmetries in $\gamma\gamma \rightarrow l^+ l^- + \nu$'s ($l = \mu, e$) with polarized photons in the Standard Model

New forum for promotion of advanced accelerator technology and science meets in Tokyo
Establishing an industry-government-academia alliance towards the ILC

On June 11, the executive officers of leading Japanese companies, important dignitaries, and a physics Nobel Prize winner gathered at Kasumigaseki, Tokyo, Japan to celebrate the establishment of a forum for promotion of advanced accelerator technology and science (official English name yet to be determined). The forum aims to develop the structure which will be the core of the industry-government-academia alliance to pursue R&D for next-generation accelerators. The organising committee was formed by Mitsubishi Heavy Industrial Ltd. (MHI), Toshiba, Hitachi, Mitsubishi Electric Co., and KEK. Companies from across various industries, laboratories and universities — a total of 76 bodies — participate in the association, and the number of participants is expected to increase.

Takashi Nishioka, Director, Senior Corporate Adviser of MHI who chairs the forum, said at the press briefing: "Establishing this association is truly significant for Japan, the country which wants to become one of the world leaders in science and technology. Strengthening the alliance between industry, government, and academia through the forum will enable Japan to acquire competences in cutting-edge technology fields."

The "advanced accelerator" is defined as an accelerator which has the best possible performance. Identified key technologies to realise such an advanced accelerator are acceleration with superconductivity, nanobeam generation and control, and detector technology which will yield the information needed to unravel the Quantum Universe. All these technologies are essential for upgrading J-PARC, the proton accelerator which has just started its operation at Tokai village, Ibaraki prefecture in Japan, for the development of the Energy Recovery Linac, the next-generation light source, and of course for the ILC. The forum wants to enhance collaboration between industry and laboratories and coordination at the higher management level, with involvement of company executives and experts from various fields. Another aim is the creation of new form of industry-government-academia alliance, considering the ILC as a model project.

Kaoru Yosano, former chief Cabinet secretary, and newly appointed Supreme Advisor of the forum, said: "The advanced accelerator project will require a long period of time. The important thing is persistence and advancing step by step from one level to the next. I believe that this effort promises us a better future Japan." Yosano, who chairs the Federation of [Diet members](#) to promote the International Linear Collider project, also stated that the Federation will be renewed with cross-party group of Diet members. This will be the first time that Diet members form such a federation in the field of basic science.

One key activity of the forum for FY08 will be communication. Research in basic science has made big impacts on society, but this was not often recognised since most of them were indirect. Because of this, the forum recognises the importance of communication in order to gain broad support from society to promote activities in basic science. Masatoshi Koshiba, Nobel laureate and the Honorary chairman of the forum, said: "I would like younger generations to have the chance to touch and feel basic science. Reading a book or listening to scientists' talks won't be enough," showing his expectation for the forum's communication activities.

The forum will form specialised groups for planning and implementation of each task, combining the expertise and experiences each member has. An intellectual property study group will conduct studies regarding intellectual property rights and its management, applying the experience from International Thermonuclear Experimental Reactor project (ITER). The Technology study group will seek possible applications of technologies derived from R&D on advanced accelerators in various field such as new materials, biology, global warming, or medical applications. The Communication group will plan and implement outreach events such as symposiums or talk shows and will launch the web site to gain public understanding. The official activity starts in two weeks.

-- Rika Takahashi



The Forum's board members at the press briefing: Nishioka, Suzuki, Yosano and Koshiba.



Group photo at the Council's establishment meeting.

Director's Corner

19 June 2008



Barry Barish

Hot off the press: Technical Design Phase ILC R&D plan

“The word draft has been removed!” announced Project Manager Nick Walker during the GDE meeting at Dubna, Russia. This seemingly innocent statement represents perhaps the most important accomplishment and milestone since completing the ILC Reference Design Report (RDR) last summer. The R&D [plan](#) outlines our strategy to advance the ILC design effort to the point where we will be ready to propose a robust construction project in a few years. It gives details on the R&D efforts, major goals, resources and schedules. This plan will be a “living document” that we intend to update periodically in order to make it an accurate reflection of our efforts as they develop.

Following the completion of the RDR, we began to detail our next steps in refining the ILC design towards a construction project. The first step in developing those plans was to reorganise ourselves around a more traditional project management structure. Our new project management then developed a preliminary set of work packages to organise the work. Just as all of this was falling into place and we had submitted a draft of the plan to the Funding Agencies for Large Colliders Resource Group (FALC RG), the roof caved in due to the funding pullbacks in both the UK and US.

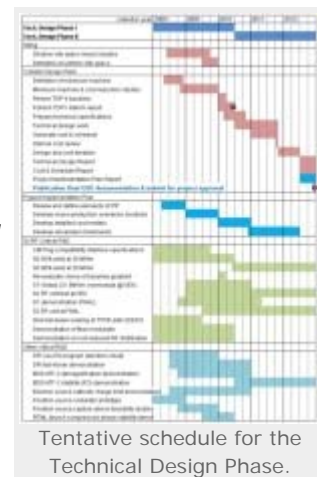
Beginning in January 2008, we outlined our strategy for a re-plan that would take into account reduced resources by setting strict priorities, reduce duplication globally and make some stretch-outs. Since that time, we have been refining the new plan and reconciling it with the best understanding of the resources we can expect over the coming few years. That process was successfully brought to conclusion at Dubna with the official release of the plan. If we succeed at this plan, we will be ready to propose a construction project on a similar timescale as we expect science discoveries from LHC to come out, which we require to validate the science case for the ILC.

The Technical Design (TD) will be divided into two phases. We plan to complete the first phase in time for the International Conference on High Energy Physics in Paris (ICHEP 2010) during the summer of 2010. In the words of the report, the two phases will consist of the following:

- **TD Phase 1** will conclude in mid-2010 with the publication of the *TD Phase-1 Interim Report*. The emphasis of TD Phase 1 is on high-priority risk-mitigating R&D — most notably the Superconducting RF linac technology — and quantifying the scope for potential cost reduction of the current Reference Design. The end of TD Phase 1 will also see a re-baseline of the conceptual machine design, in preparation for more detailed technical design work in TD Phase 2. The re-baseline will take place after careful consideration and review of the results of the TD Phase 1 studies and the status of the critical R&D.
- **TD Phase 2** (2010-2012) is intended to consolidate the new baseline reference design with more detailed technical design studies leading to an updated VALUE estimate and construction schedule. In parallel remaining critical R&D and technology demonstration milestones will be concluded. A further critical component of TD Phase 2 will be the detailed development of the Project



The ILC R&D Plan is released.



Tentative schedule for the Technical Design Phase.

Implementation Plan.

The report contains enough detail to serve internally as the central guide to our work, as well as being useful to the individual funding agencies to understand how their resources fit into the global picture. It will also be useful for review committees, who will be able to compare the goals we established with the progress we have made. The schedule presents the major goals for our R&D programme, establishes the priorities and flags other important deliverables that will be needed, including a Project Implementation Plan (PIP). We have not yet begun to organise the PIP and it will be a challenge, requiring resources not yet identified. Yet it will be essential to our presenting a technical design when we propose the project as well as having a realistic and flexible plan for how the project can be divided up, how it can be industrialised, and what the key features required of the governance for our global science effort are. I will write much more about the PIP in future columns as our ideas develop.



Nick Walker, GDE Project Manager.

I end today's column by especially commending our project managers for their diligence and systematic work to bring this plan together, especially Nick Walker for organising and driving the completion of the actual document. The combination of the RDR and the new R&D plan gives us a solid basis to focus our efforts as we continue to follow the path towards a real project.

-- *Barry Barish*