

Research Director's Report

21 November 2007



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Where are we now ?

It has been several weeks since I last wrote for *ILC NewsLine*, right after becoming the research director. Since then, I had many occasions to talk with more people. Each meeting or telephone conversation was fresh to me. Through these discussions, I realised that some of the given charges are more urgent or fundamental, while the main task does not change.

As many of you heard at the ALCPG07 workshop that took place at Fermilab last month, the Global Design Effort now enters an engineering design phase with a newly enforced structure. In order to communicate and effectively collaborate with the GDE in the effort, the detector community also needs to be well organised. We will then be able to cooperate with the accelerator team in a coordinated way, solving many questions of machine-detector interface.

For this purpose, the ILCSC made a call for Letters of Intent and nominated a research director.

For existing colliders, when Letters of Intent were called for, experimental groups were formed among the interested physicists and they organised themselves. We observe that a similar process is going on now in the ILC physics community.

As the ILCSC instructed, the International Detector Advisory Group (IDAG) will be created. The ILCSC will approve the members of this committee. IDAG will scrutinise the submitted Letters of Intent and recommend two groups, which will participate in writing the Engineering Design Report. The IDAG will examine whether the proposed detectors are capable of achieving the desired physics, and if they are cost effective and feasible for construction.

It should be noted that this does not mean that these detectors will really be built nor that their authors will be committed for construction. Nevertheless, through working intensively for a concrete engineering design, the groups will strengthen their personal link, enthusiasm and interest to continue their effort.

This is one side of the story. On the other side, the groups who submit Letters of Intent are expected to cooperate in many aspects. Already, and before the selection is made through the preparation period, they need to collaborate in contacting or working together with the machine group in a unified manner. They may also share work in detector R&D or software development to stretch the budget. There can be further common studies with theorists. This cooperation will be useful for the other requirements that groups must be open enough to accept new ideas and members, when the project becomes real.

There should be a mechanism which enables both competition and close cooperation among groups who submit Letters of Intent. In order to build such a mechanism that will really work, the accumulated experience of the World Wide Study and continuing efforts in each region are valuable. By collaborating with the three WWS co-chairs, such a mechanism is being designed. As a result, I hope every region will be informed in a timely manner when things get a bit more mature.

Following the basic idea for the entire scenario, the mechanism should guarantee a good link with the GDE and allow for well organised communication to reach the common goal. For this, the already established organisation and experience of the GDE will serve as a good guide. We are helped also by the well organised system and efficient communication tools of the GDE to start our activities.

Progress is not fast, but it is steady. The next step will be the identification of the Letter of Intent groups and the formation of the IDAG. By the end of this year, I hope there will be a more concrete outline to present. I believe a well designed mechanism helps. But after all, what brings us to a success - that is to say the completion of EDR including good detector designs, is not a mechanism but our strong wish to carry out physics research at the ILC.

-- Sakue Yamada