

LCSGA and ILCSC activities

- ❖ LC organization after GDE TDR and CLIC CDR
- ❖ US (DOE) outlook

The Linear Collider Steering Group of the Americas (LCSGA) is an ad hoc group that advocates for an electron positron linear collider within the Americas. Its purview is both the accelerator aspects and detector issues. It represents the Americas in the International Linear Collider Steering Committee (ILCSC)

Current LCSGA membership:

Jon Bagger, Jim Brau, Marcel Demarteau, Paul Grannis*, Mike Harrison, Stuart Henderson, Norbert Holtkamp, Dean Karlin, Richard Keeler, Nigel Lockyer, Harvey Lynch, David MacFarlane, Mark Oreglia, Satoshi Ozaki, Nan Phinney, David Rubin, Bruce Schumm, Maury Tignert†, Harry Weerts, Andy White

* Chair

† past chair

In its Beijing Feb. 2011 meeting ILCSC asked for advice from regional steering groups on an appropriate organization for LC activities after the GDE/RD mandates expire with the delivery of the TDR/DBD.

The ILCSC, GDE and Res. Directorate are slated to go out of existence on the delivery of the TDR/DBD in 2012. The CLIC CDR is expected to be delivered in mid 2012, for consideration in the European Strategy process.

There is thus an opportunity to bring LC generally – CLIC and ILC – into a closer relationship and to promote the appropriate linear collider based upon the emerging LHC results.

In Mumbai (Aug. 2011):

ILCSC voted to continue the GDE/RD through the end of 2013 to facilitate the presentation and discussion of the TDR and make the transition to a new organization. ICFA confirmed this extension.

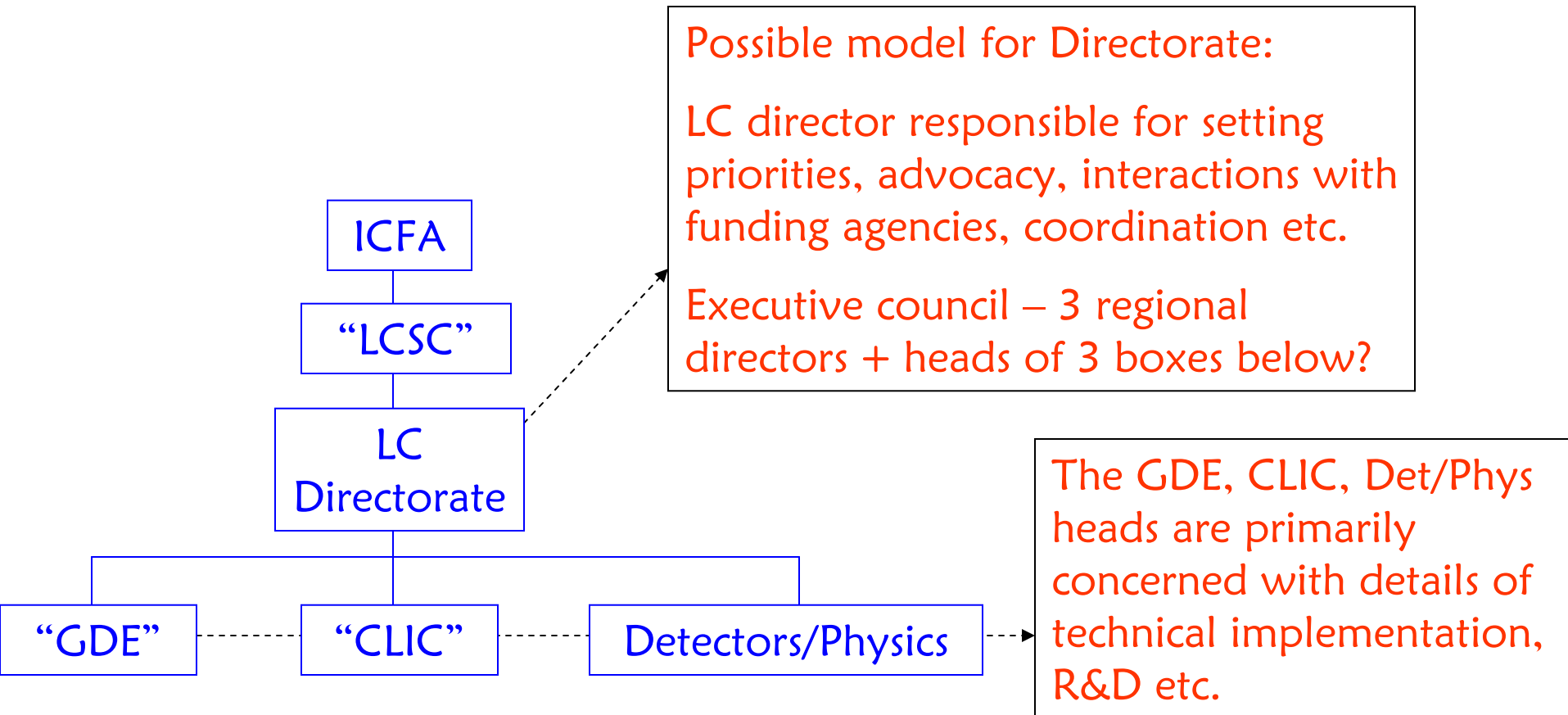
ILCSC asked for a common LC (ILC and CLIC) statement for the European Strategy submission.

ILCSC is setting up a Site Criteria Working Group to be led by Don Hartill with a charge to come in Feb. Oxford ILCSC meeting.

GDE is preparing a Project Implementation Plan covering governance, host responsibilities, project management etc. as part of the TDR. A group under Atsuto Suzuki is developing a 'CPDG' that discusses project implementation. ILCSC suggested the CPDG be input to the TDR PIP.

Agreement on general features of the post-TDR organization was reached:

- ❖ Bring ILC and CLIC into a common framework, overseen by a single body, “LCSC” reporting to ICFA.
- ❖ Bring the Research Directorate into this common framework



What do we imagine the LC activities to be post 2012?

ILC

- ❖ Maintain and evolve the TDR design under established change control mechanisms
- ❖ Continue system tests now underway or planned
- ❖ R&D on higher gradient/cost reduction
- ❖ Value engineering and industrialization
- ❖ (elsewhere) Detailed evaluation of possible sites

CLIC

- ❖ Further system tests, cost optimization leading to possible TDR after mid decade?

Detectors/Physics

- ❖ Subsystem R&D, design optimization
- ❖ Track physics case, and re-prioritize and evolve detector design

Some open questions:

1. What is included in the “Detectors/Physics” box? It at least includes the activities now under the Res. Director – including the management of ILD, SiD concepts for both ILC and CLIC; coordination of R&D efforts, software tools etc., and planning for eventual choice of LC experiments.

What is still not decided is how WWS fits. Some view WWS as a user organization, free-standing outside the LC directorate in a similar way to SLUO, Fermilab UEC etc. Some advocate that WWS activities be amalgamated into the LC Det/Phys. organization.

Your comments and advice are welcome.

2. Job descriptions, charges for the various entities in the proposed organization need to be established in the Feb. 2012 Oxford ILCSC meeting. Need to avoid being too prescriptive to allow flexibility.

Some open questions:

3. The timetable for seeking a LC Director needs to be better defined. Originally, ILCSC imagined a search in 2013, post TDR. However if the sequence is first find a LC director, then “GDE director”, the time scale is too tight to complete the ILC search before GDE (and its director) evaporates at end 2013. Should one start the LC director search in 2012?
4. The relationships between the CPDG (Comprehensive Project Document) and the GDE’s PIP – and the Hartill Site Criteria committee – are still not clearly defined. Care is needed to strike a balance between enunciating site requirements and project management needs (physicists) and establishing a site selection process (governments).

What do we know about DOE support for LC activities in the out years?

(what do we know about DOE funding even in the current year??)

Had \$28.3M (GDE) in FY2011 + some from SCRF generic

Expect ~\$22M in FY2012 (subject to CR and budget discussions), plus some SCRF funding.

DOE has said that it “wants to stay in the LC game”* while the physics landscape is being defined by LHC etc. Amounts for LC accelerator R&D hoped to be in \$15M region, but the current budget problems will threaten this.

With this budget, main expenditures in US would be on cryomodule string test and related work.

If funding falls below ~\$10M, severe curtailment of US ILC program would be necessary.

DOE is comfortable with bringing ILC and CLIC under common umbrella.

* Jim Siegrist

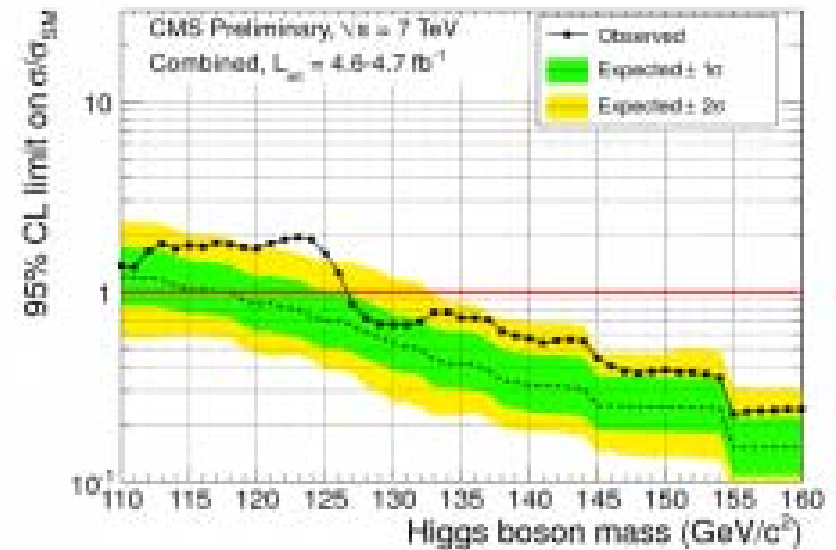
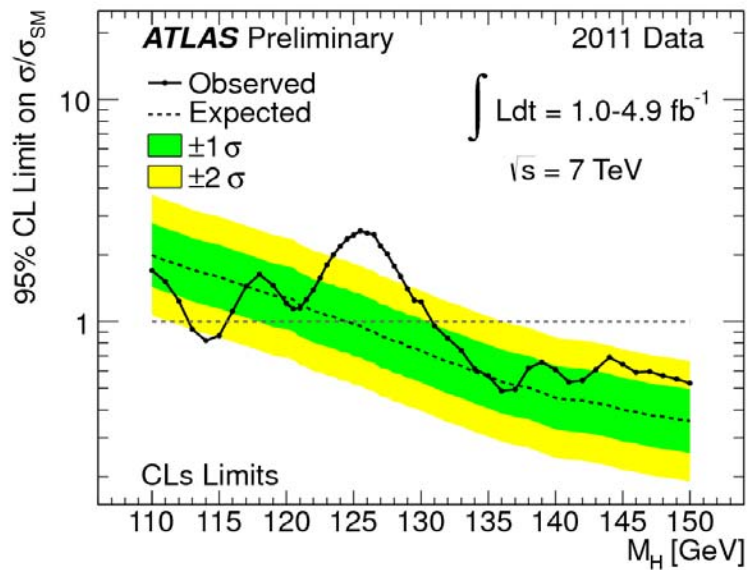
What prospect for detector R&D funds?

DOE remains committed to a broader program of detector R&D than just ILC. Now it is 'future collider' detector R&D, but not incorporating LHC upgrades as yet. There is at least talk of a more fully integrated program of R&D activities.

* Concerning this year's funding: "We are looking at the most highly reviewed CDRD proposals this month and are negotiating their funding levels and plan to initiate funding after Jan 1. We will work our way through the list assuming we have the full amount of funding that was designated for these grants."

* Concerning future plans: "We are planning on having about \$2.5M for the CDRD grants for this year and each of the following years. Under flat we are optimistic for this year's funding, but not so for the out years. My personal hope is that we will be able to offer additional opportunities in FY13 and beyond, but at present that looks unlikely."

A final note



Take heart ...

This cannot be bad news for LC prospects !

The physics case for the LC remains strong. The international basis for a project is reasonably in place. We are in a wait and see period both scientifically and economically. But the framework for a linear collider project can and should be put in place so that under the right circumstances, a strong proposal can be delivered quickly.