



# Linear Collider Board (LCB) Report



**ECFA LCWS  
26 May 2013  
DESY**

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## Mission:

LCB will

- 1) establish **Linear Collider Directorate** headed by the LC Director
- 2) provide **oversight to the LC Directorate** (LCD)
- 3) work with **Funding Agencies for Large Colliders** (FALC)
- 4) set up **Project Advisory Committee** (PAC)
- 5) **monitor the progress** of LC activities through the LC Director and PAC Chair, and
- 6) monitor the **outreach** of LCD, regional and other groups to the scientific community, to industry, to government officials, and to the public.



# Members: 5 members X 3 regions + chair = 16 members + secretary

Chair	Sachio Komamiya (The University of Tokyo)
Americas	Jonathan Bagger (Johns Hopkins University) The Fermilab Director (Pier Oddone) David MacFarlane (SLAC) Lia Meringa (TRIUMF) Hugh Montgomery (Jefferson Lab)
Asia	Jie Gao (IHEP, Beijing) Rohini Godbole (Indian Institute of Science) Sunkee Kim (RISP) Atsuto Suzuki (KEK) Yifang Wang (IHEP, Beijing)
Europe	The CERN Director-General (Rolf Heuer) The DESY Director of Particle Physics (Joachim Mnich) Francois Le Diberder (IN2P3) The JINR Director (Victor Matveev) Lenny Rivkin (PSI)
Secretary	Roy Rubinstein

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## Purpose:

- LCB is created as a sub-panel of ICFA (International Committee for Future Accelerators).
- LCB will promote the construction of an electron-positron linear collider and its detectors as a world-wide collaboration project.
- The LCB will be responsible for the science, technology, outreach, and organization in pursuit linear collider project.

# ILCSC/LCB Meeting

21 March 2013 Vancouver

The final meeting of ILCSC     John Bagger

The first meeting of LCB     SK

## (1) GDE Report     Barry Barish

History and mission of GDE leading to production of TDR.

(Barry's Talk in this meeting)

## (2) Research Director's Report     Sakue Yamada

The process leading to the Detailed Baseline Design (DBD) report of physics + detector studies for ILC including the ability of detectors to study  $\sim 125$  GeV Higgs Boson.

### (3) PAC for GDE (13-14 Dec. 2012 KEK) Lyn Evans

This was mostly a technical review of ILC accelerator part of TDR.

The committee accepted the detector review by the IDAG.

Two major reservations

[1] More proof of the feasibility of Klystron

Cluster Scheme (for flat site) is needed

[2] ATF2 spot size goal is not yet reached

⇒ After the PAC, ATF2 reached  $\sigma_y \sim 70$  nm.

### (4) TDR Cost Review Norbert Holtkamp

6-7 February 2013 Windsor UK

Extensive review also including the organizational issues

### (5) ILC Event Brian Foster

Applauding GDE team and aspiring the LCC activities

12 June 2013 Asia→Europe→America

## (6) World-Wide-Studies of physics and detectors for LHCs Jim Brau

History and past achievement of WWS as grass-root organization. Future role of the WWS should be determined by physics +detector associate director of LCC.

## (7) General Issues Working Group Mike Harrison

Comparison of ILC/CLIC parameters/cost.

ILC/CLIC is not alternative projects, after the discovery of  $\sim 125$  GeV Higgs Boson.

- { Early realization of ILC.
- { Continuation of R&D for CLIC.

## (8) LCC Lyn Evans

- a) Organization of LCC Lyn Evans
- b) ILC Mike Harrison
- c) CLIC timeline Steiner Stapnes
- d) Physics and detectors Hitoshi Yamamoto

## (9) Regional Report

- Asia Jie Gao
- Americas Paul Grannis
- Europe Francois Le Diberder

## (10) Project Design Guide Line Atsuto Suzuki

Management model for the pre-ILC Lab. and how to proceed towards an ILC Lab.

cf: PIP document studies the possible organization of ILC after the project has been approved

## (11) Next LCB will be during LP2013 (26 June 2013)

The following one will be at DESY (20 Feb. 2014)



# Project Advisory Committee for LCC

Chair: Norbert Holtkamp

Deputy an experimental physicist

I am asking Norbert to choose important experts for ILC/CLIC accelerator review. He wants to establish rather compact committee.

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Two accelerator experts from each major region

One detector + physics experts from each region

One or two construction management expert(s)

One or two project management expert (s)

A secretary:

Ex officio: the LCB chair

**I want to establish PAC around June 2013 to review the continuation of activities from GDE/RD and milestones of LCC for three years (in the early autumn 2013).**

# Draft Charge for Linear Collider Board (LCB)

## Program Advisory Committee (PAC)

The LCB is responsible for the oversight of the Linear Collider activities and of the LC experimental program. PAC will assist LCB in this function and report to the LCB. The PAC advises the LCB in all technical aspects of the Linear Collider. Technical as well as project progress will be assessed by the PAC on a regular basis. PAC will review the LCC accelerator activities and, in addition, the LC detector activities. In its review activity, PAC will examine the overall consistency and realism of the project goals. PAC shall comprise about 12 members, appointed by the LCB for terms of two years (can be extended to three years). The rotation should be organized so to allow enough overlap between old and new members. The committee will meet two times per year or as requested for typically two days rotating among the regions. The agenda of the meeting will be agreed upon between the LCC director, the chair of the LCB and the PAC chair.

In particular the PAC will assess and / or comment:

- The overall physics, technical design, cost, and schedule
- The detector progress
- Civil construction and the preparatory activities
- The financial contributions and management as far as  
accelerator/detector design, R&D and the site preparation activities
- Schedule

Chair: from the accelerator community with experience in international projects and construction of large scale science facilities  
Deputy: from the experimental or theoretical physics community with experience in international projects and construction of large scale science facilities

# Organizational issues for the ILC project

**Set up an ad-hoc committee to study and to decide this issue.**

**Members:**

**Experienced scientists such as former or current lab directors , or project management experts**

**We have to prepare for the international negotiations of the ILC project, after the site decision, and an action of the expected host country.**



## SUMMARY

**At the Vancouver ICFA meeting on Feb. 21<sup>st</sup>**

**The LCB is established. The LCC is officially created by LCB. LCC is lead by Lyn Evans.**

**PAC members will be determined in the next LCB meeting to review the continuation of the activities of ILC after TDR, CLIC after CDR, and physics+detector activities and to review the future milestones.**

**MOU for LCC will be established in the next LCB meeting. ( I hope all the major labs in 3 regions will sign the MOU)**

**An ad-hoc committee to study and to direct the ILC organizational issues will be discussed at the next LCB.**