

RD's Report

(update since June)

LCWS2008 @Chicago

Nov.16, 2008

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PAC

Regional Contacts

Common Task Groups

Collaboration with CLIC

ILCSC

Schedule

Minimum Machine



Project Advisory Committee (PAC) of ILCSC

1st Meeting in Paris Oct.19-20, 2008

- Detector activity by S. Y.
- IDAG by M. Davier (IDAG chair)
- MDI issues by A. Seryi (GDE)
- Collaboration with CLIC detector/Physics group by F. Richard (R.C.)

PAC commended

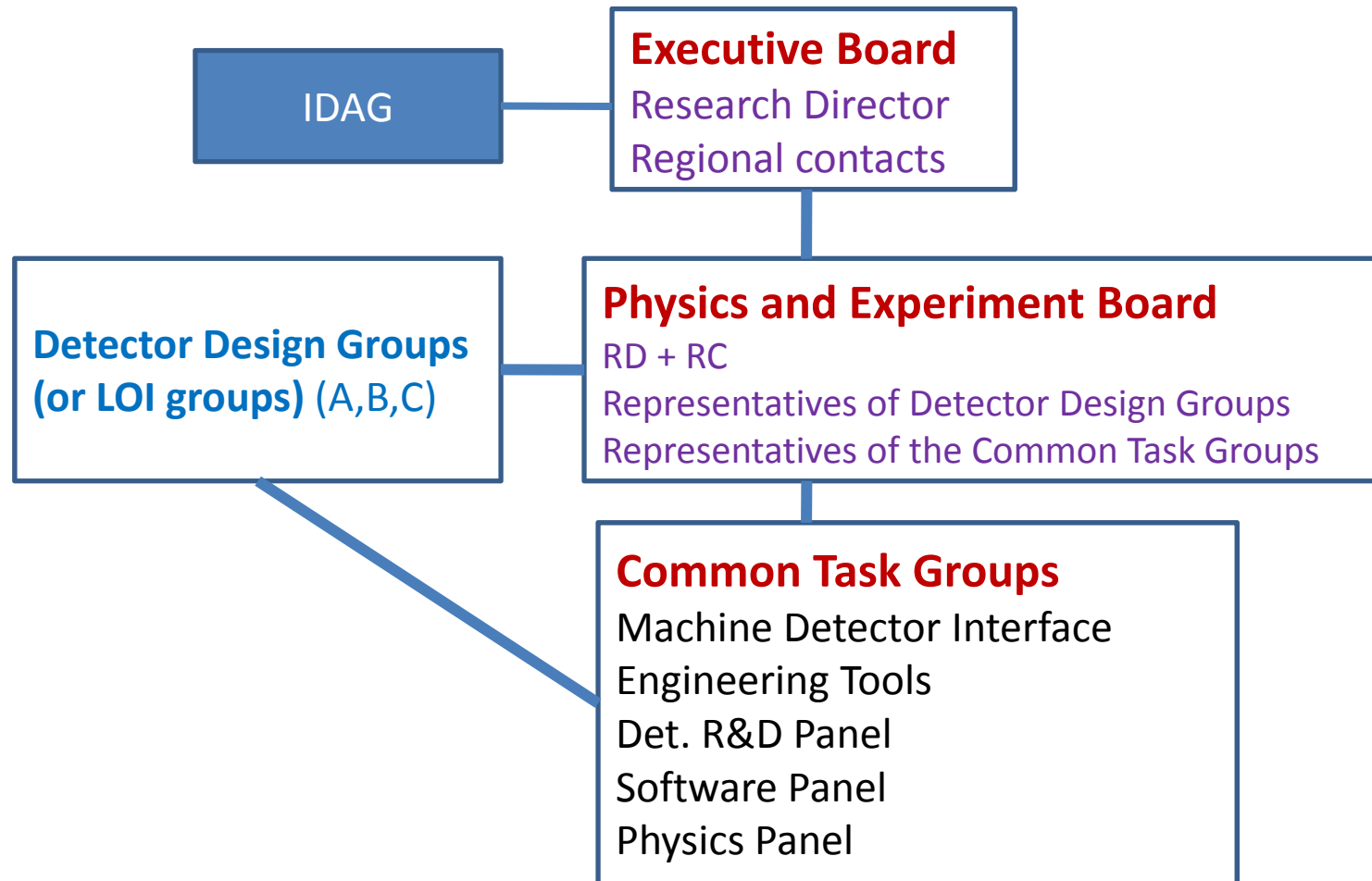
- a) the present scheme for the management,
- b) IDAG's composition and start of activity
- c) cooperation with CLIC detector activity.

The PAC recommends that

*IDAG monitors LOI groups' development through the TDR phase,
encourages the production of an interim progress report in 2010.*

The frame structure of the management

- *The idea was agreed by ILCSC February 2008.*



RD Management Organization

- The nomination of the regional contacts:

Overlap of *the regional contact* and *WWS co-chair* was agreed **as a temporary solution.**

Although ‘temporary period’ was not defined clearly, after one year from the start I considered this issue again.

I wished to keep the same members as RC.

Our progress is yet slow and temporary period may be rather long.

The present situation of ILC requires good communication with the community.

Since the accelerator is being planned to be proposed, which is different from existing accelerator case, the RD management and the community have more to cooperate than to conflict.

This idea was supported by WWS-OC, PAC and ILCSC.

Common task groups

- These groups cooperate cutting across the LOI groups for the tasks of common interest.

The numbers are participating members from each group.

1. Machine Detector Interface (2)
2. Engineering Tools (1)
3. Detector R&D Panel (2-3 +rep.of R&D collab.)
4. Software Panel (1-2)
5. Physics Panel (2 + some theorists and expts.)

The convener (or sub-convener) of each common task group will participate in the Physics and Experiment Board.

Common Task Groups (cont'ed)

- **All groups are formed completely.**

The list of all members is shown in the ILC HP of Det. and Exp.

- More members are invited
to the **Detector R&D panel** and **Physics panel**.
- **Conveners and sub-conveners have been named.**
- **Now the groups are starting activity.**
(MDI was active since April.)

Reinforcement of the Detector R&D Panel

- Strong wish from the LOI groups: to make a good link between detector R&D Panel and R&D collaborations
- We contacted major R&D collaborations for suggestions in July . They responded positively for the scheme and some offered to send representatives.
- The R&D Panel was enlarged inviting these representative.

(WWS stopped its detector Panel considering overlapping of its activity with the detector R&D common task group.)

These changes lead to wider scopes of the Panel.

The reinforcement of the Physics Panel

- **The physics Panel** was reinforced by inviting more members from out of the ILC community.
- We asked ILC steering body of each region to suggest candidates, from whom *one theorist and one experimentalist* from each region were asked to join.
- As a consequence, the panel may wish to survey physics of long term future beyond the ILC energy.

Current Common Task Members

28/10/2008

From LOI groups

members from out of LOI groups

MDI

Convener: Karsten Buesser
Deputy: Phil Burrows

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Engineering Tool

Convener: Catherine Clerc

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Det. R&D panel

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Deputy: Franco Grancagnolo

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Common Task members (cont'ed)

Software Panel

Convener: Akiya Miyamoto

Deputy: Norman Graf

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Physics Panel

Convener: Michael Peskin

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Deputy: Georg Weiglein

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Initial activities of the common task groups

- **MDI** cooperates with the BDS group of GDE
- **Engineering Tools** will coordinate to use common engineering tools with GDE
- **Detector R&D panel** will survey status of detector R&Ds, act as a link to R&D collaborations, arrange a review and/or coordination of priority (when required).
- **Software panel** will coordinate common tools, common data base or code compatibility for simulation.
- **Physics panel** will study likely physics scenarios in view of the result of LHC. They may provide material for possible considerations for the initial energy or staging of ILC made *by ILCSC's new parameter group or equivalent.*

We asked them to investigate existing materials first and to fill gaps if any possible areas are left untouched.

Collaboration with CLIC

- Detector activity is one of the collaborating sub-groups
- Contact persons were arranged from the ILC LOI groups
Corrado Gatto(the 4th),
Norman Graf(SiD),
Mark Thompson(ILD)
- The ILC detector concepts/algorithms were tried by the CLIC people (or in collaboration with the contact persons) at higher energies.
- The cooperation is going well and appreciated by the CLIC detector community.

ILCSC

- Held at SLAC on October 31
- PAC result was reported where it was agreed **that IDAG's mandate be extended through the TDR phase to monitor the development of the validated LOI groups.**
- A request was made by H. Sugawara to include the studies of a gamma-gamma collider Higgs factory as a precursor to ILC at relatively low energy.
- There was a request of the ILCSC chair to have the physics case investigated by the Physics Panel, under an assumption that a light Higgs can be found at LHC.

Schedule

- **LOI due date: March 31 2009**

Guideline for LOIs and Benchmark Reactions

(ILC hp > Physics and Detectors > Detectors)

Additional questions from IDAG after the 1st IDAG meeting in Warsaw

- **IDAG will start validation process asap**

- **What is validation:**

Physics aims, adequacy of the technology,
performance of the detector,
feasibility and Push-pull possibility,
capability of the group.

- **Presentation by the groups**

during TILC09 @ Tsukuba from April 17, 2009.

- ***Additional meeting of IDAG may be organized in Summer***

- ***Result will hopefully be announced in Fall 2009.***

(IDAG will discuss the schedule during this workshop.)

Reminder

- Priority setting for detector R&D for each component is expected in the LOI.
- *This will be important for requesting budget for R&D.*
- *This may require detailed discussions with R&D collaborations.*
- There was some discussions on the Push-pull possibility in ILCSC. Stability and/or speed for positioning will be examined by IDAG and may also be watched by ILCSC.

Minimum Machine considered by GDE

- The minimum machine follows the performance required by the ILCSC's parameter group.
- There will be a communication channel created between GDE and the detector community on the minimum machine.

Summary

- PAC commends the present scheme. They recommended IDAG mandate extended through the TDR phases and an interim report of detector activities in 2010.
- The common task groups are fully set up and all groups (except MDI) start actions around/during this workshop.
- Collaboration with CLIC took off smoothly.
- ILCSC will continue discussions on the requested studies of gamma-gamma Higgs factory. We are asked to investigate the physics case for the discussions.
- We look forward to receiving the LOIs by the due date and wish IDAG to announce the result of validation in Autumn.

Jan.09,2008

