Organisation of the CLIC Physics and Detectors Study

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ILC/CLIC common WG on general issues

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Introduction

The CLIC physics and detector CDR was finished recently.
Review if the CLIC CDR:
https://indico.cern.ch/conferenceDisplay.py?ovw=True&confId=146521

We are now preparing a third "strategic volume of the CLIC CDR. This document (~40 pages) is due for July 2012 and will comprise:

- Physics overview, detector overview, accelerator overview
- Example of a staged approach for CLIC (500, 1400, 3000 GeV), together with parameters, construction/operation scenario, power consumption vs time, cost issues and cost drivers.
- Work plan for the "preparation of a CLIC implementation plan", due ~2016, and beyond.
- Physics case for the staged scenario, worked out in detector simulations for a few standard model physics channels and a possible susy scenario.

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Up to now, the organisation of the CLIC physics and detector study was driven by the CDR objectives:

- CDR editors
- Working groups focused on the CDR preparations

Organisation

A more structured organisation of the CLIC physics and detector study is currently being implemented.

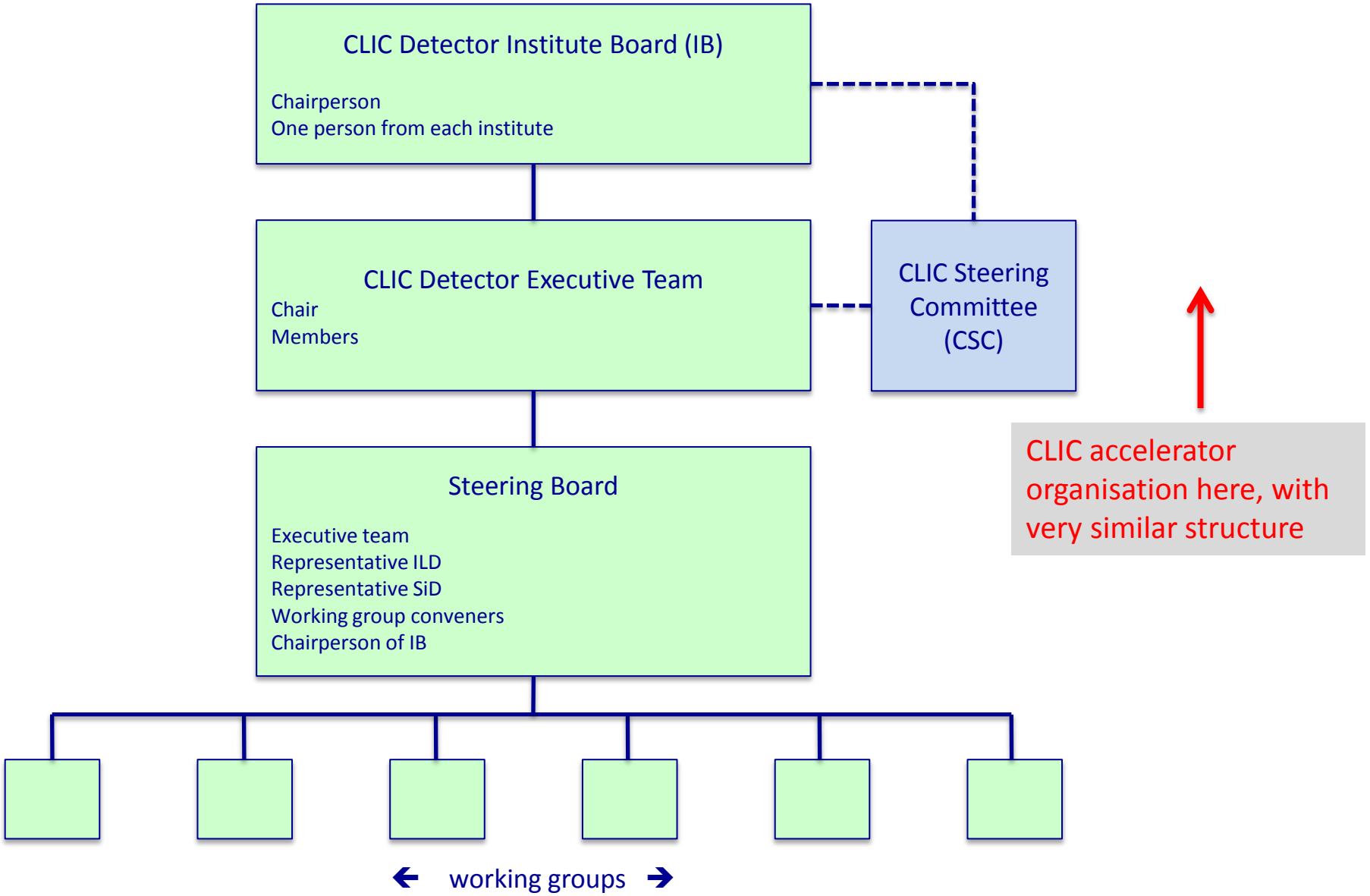
- Some parts are already implemented
- Some parts will be put in place in the coming months
- Input from the discussions on the new LC organisation will be taken into account

We are working towards an implementation that is based on the model applied to most HEP experiments and R&D projects.

The following elements will be part of the new structure:

- Acknowledgement of strong collaboration with LC physics/detector studies
- A means for institutes to participate (semi-)formally
- A means for participating institutes give direction to the project
- A means for participating institutes to appoint an executive body + role rotation
- A small executive team
- A steering board for the physics and detector study
- A strong link to the CLIC accelerator project via the CLIC Steering Committee (CSC)
- CSC involving CLIC accelerator and detector, ILC accelerator representation, LC detector study representation, 3-region representation
- A host laboratory (CERN)

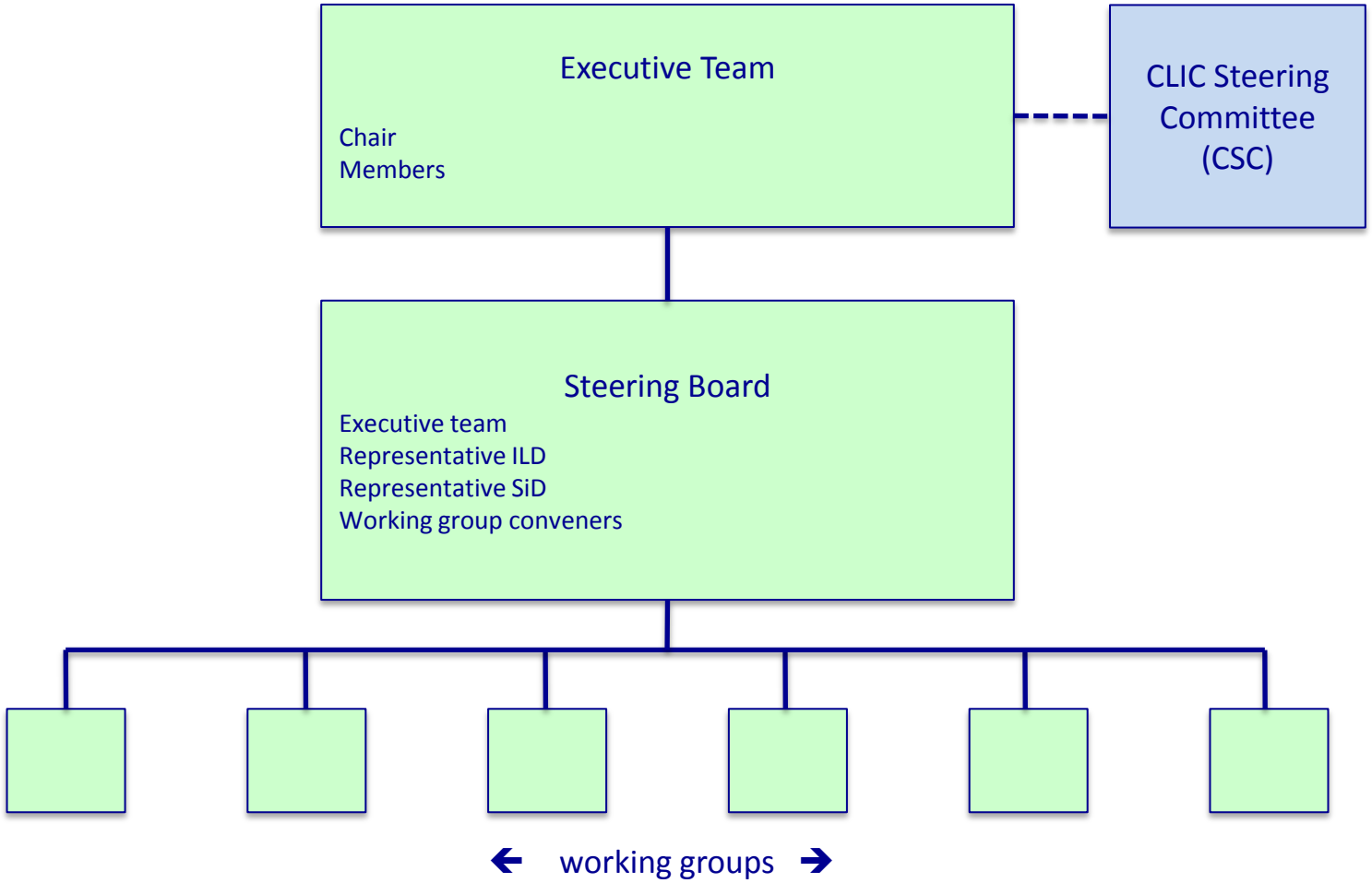
Possible implementation, based on typical HEP experiment model



CLIC accelerator organisation here, with very similar structure

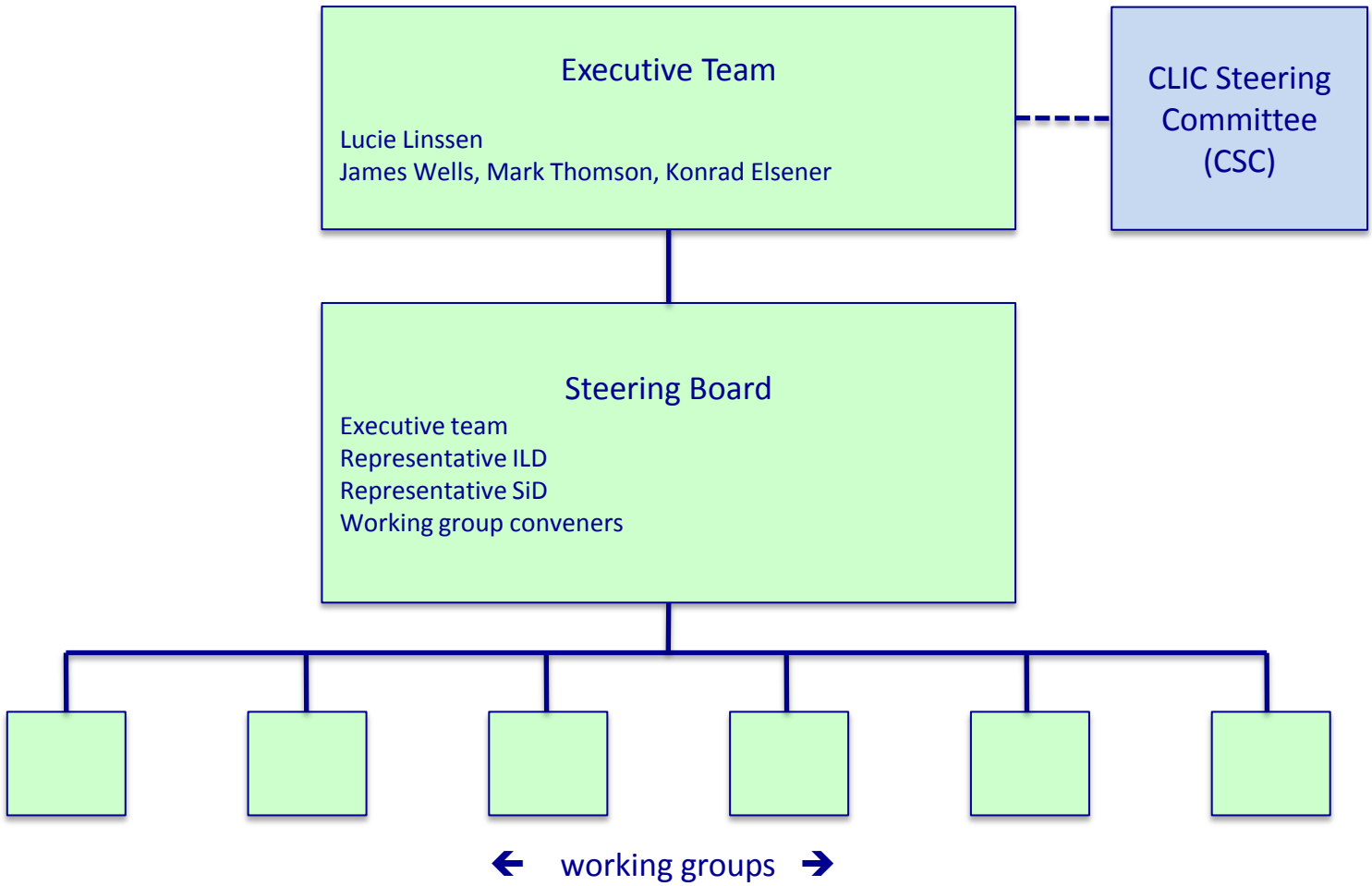
Organisation of the CLIC physics and detector study

First step => “light” implementation



Organisation of the CLIC physics and detector study

✔ Executive team + participation in CLIC steering committee
Next step: revisit working groups and install steering board
After that: work towards a "memorandum of agreement" with participants.
After that: start with ~bi-annual Institute Board meetings, nominations, complement CSC, etc.



A few more remarks

The organisation of the CLIC physics and detector study will be “light”, because the time-scales are long and there is no need for very formal arrangements that involve decisions on large investments.

Inspired by organisation examples like LC-TPC or CALICE

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For defining the Physics/Detector box of the future LC organisation we propose:

- To complement the current top-down discussion approach with bottom-up discussions involving members of both ILC and CLIC

- To define together to have a temporary “discussion forum” for these discussions

- We see 3 possible places for such a “discussion forum”
  - The ILC/CLIC common detector WG on general issues
  - WWS meetings, with participation of a few members of the executive team of the CLIC physics and detector study
  - A new discussion group to be defined