# International Cooperation Strategy

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DUNE Resources Review Board

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# Introduction

- The Role of the Host Lab in the Consortium

- Modernization of computing update
  - Governance
  - Technical

- Getting Credit for Computing

- Discussion

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# Role of the Host Lab: CERN example (2006)

**Annex 5.1. The Organizational Structure of the WLCG Collaboration**

1. High-level Committees:

1.1. Concerning its main technical directions, the WLCG Collaboration shall be governed by the **WLCG Collaboration Board** (CB). The CB shall be composed of a representative of each Institution or federation of Institutions that is a Member of the WLCG Collaboration, the LCG Project Leader and the Spokespersons of each LHC Experiment, with voting rights; and the CERN Chief Scientific Officer (CSO), and CERN/IT and CERN/PH Department Heads, as ex-officio members without voting rights, as well as a Scientific Secretary without voting rights. The CB elects the **Chairperson of the CB** from among its Members. The CB meets annually and at other times as required.

1.2. A standing committee of the CB, the **Overview Board** (OB), has the role of overseeing the functioning of the WLCG Collaboration and of this MoU in particular. It also acts as a clearing-house for conflicts that may arise within the WLCG Collaboration. The OB shall be chaired by the CERN CSO. Its other members comprise one person appointed by the agency/agencies that funds/fund each of the Tier-1 Centres, the Spokespersons of the LHC Experiments, the LCG Project Leader, the CERN/IT and CERN/PH Department Heads, and a Scientific Secretary. It meets about four times per year.

Both the CB and the OB may co-opt additional non-voting members as they deem necessary. The non-voting members complement the regular members by advising on (e.g.) matters concerning the environment in which the WLCG Collaboration operates or on specialist aspects within their areas of expertise.

Two people from CERN vote in the CB
Three members are from CERN but have no voting rights.

In reality most decisions are made by consensus. Meetings are much less frequent. Ian Bird has been the only Project Leader ever…

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# Host Lab

- Given the previous slide, you'd think the host lab is not very different then it's tier 1s…

- This is not quite true.  When the sum of all of the pledges to an experiment do not meet an LHC experiment's needs, CERN makes up the difference.

  - This has happened a few times to CMS and ALICE

  - These experiments did not get enough tape "pledges" meaning their scrutinized and approved needs did not get 100% funding from the experiments agencies
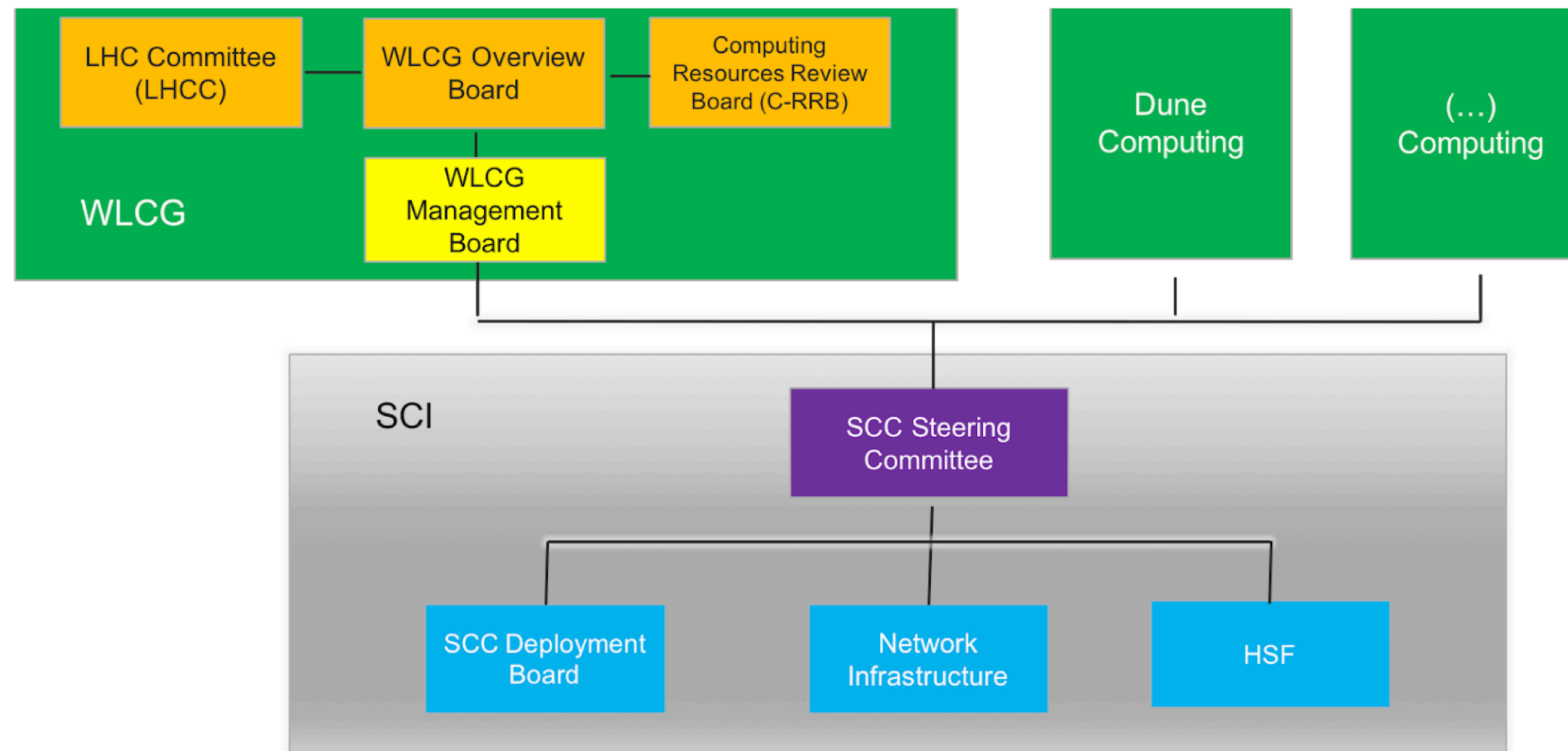
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# Evolving the Model

- As one of the contributions to the EU strategy group, a proposal for scientific computing evolution was submitted.

  - https://indico.cern.ch/event/734889/contributions/3225648/attachments/1761887/2858960/
    Evolution_of_the_scientific_computing_Organization_and_Infrastructure.pdf

- It documents a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) of the current organization and suggests changes to meet the challenges for the future.

- The most valuable asset of the WLCG is the trust network among stakeholders.

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# Extended Organization

**Scientific Computing Infrastructure governance: organization and steering**

We propose to evolve the existing computing infrastructure for LHC into one for the entire HEP community: the **Scientific Computing Infrastructure** (SCI). For such a process to happen we clearly need the buy-in of all of the major stakeholders, and the community itself

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# Active Technical Community : HOW2019 at JLab

**HSF - HEP software foundation**

**OSG - Open Science Grid**

**WLCG**

Mon. devoted to the previous slide.

Heidi will speak for DUNE

Technical program for the rest of the week.

https://indico.cern.ch/event/759388/timetable/?view=standard

### Jefferson Lab

CONFERENCE LINKS

Main
Registration
Program
Lodging
Participants List

ADDITIONAL INFO

Directions
Local Dining & Entertainment

CLICK TO DOWNLOAD POSTER



## HOW 2019

Date:
March 18, 2019 to March 22, 2019

Conference location:
Jefferson Lab

12000 Jefferson Ave, Newport News, VA 23606
CEBAF Center

Joint meeting of the HEP Software Foundation, Open Science Grid, and World-wide LHC Computing Grid

Organising Committee:
Amber Boehnlein, Jefferson Lab (Chair)
Ian Bird, CERN
Simone Campana, CERN
Tim Cartwright, University of Wisconsin-Madison
Ian Collier, STDC
Michael Jouvin, LAL-CNRD
David Lange, Princeton University
Graeme A. Stewart, CERN
Frank Wuerthwein, UC San Diego

To request a VISA letter of invitation, please contact Rachel Harris at harris@jlab.org.

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# A Responsibility Matrix for Computing

- Propose to have a separate responsibility matrix for computing given its very different funding profile.

| | DOE | CERN | UK | ... |
|---|---|---|---|---|
| *protoDune SP operations personnel* | | | | |
| *protoDune SP CPU* | | | | |
| *protoDune SP tape* | | | | |
| *protoDune SP disk* | | | | |
| *protoDune DP operations personnel* | | | | |
| *protoDune DP tape, disk, CPU* | | | | |
| *DUNE services and software development personnel* | | | | |

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# Inaugural Meeting of the International Committee Advisory

- Fermilab is forming an International Computing Advisory Committee
  - See the charge attached to the agenda
  - Members who have agreed to serve:
    - Ian Bird (Chair)
    - Eric Lancon
    - Peter Clark
    - Peter Elmer
    - Suchnadra Dutta
    - Michel Jouvin
  - First meeting will be March 14-15

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# Summary

- We propose following an appropriately modernized WLCG model for DUNE computing.

- Since the physical international computing infrastructures are shared, we will have to propose a governance model that includes negotiations and cooperation with the LHC and other sciences.

- The DOE and FNAL have a goal of obtaining 75% of the necessary computing resources from other agencies.  We welcome international partnerships.

- Funding for LHC computing started 7 years before data taking.  It is not premature to find mechanisms to fund DUNE pre-operations computing.

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