

 <p>27 June 2005</p>	<p>Summary, <b>CHIPP</b> Board Meeting</p>	<p>16 June 2005 16:00, Bern University.</p>	<p>A. G. Clark</p>
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### Participants

- A. Blondel, A. Clark, M. Pohl (UniGe)
- A. Bay, T. Schietinger (EPFL)
- J.-L. Vuilleumier (UniNe)
- J. Gasser, P. Minkowski, K. Pretzl (UniBe)
- K. Gabathuler (PSI)
- J. Jourdan (UniBa)
- U. Straumann (UniZh)
- G. Dissertori, U. Langenegger, F. Pauss, A. Rubbia (ETHZ)

### Invited

- C. Grab (ETHZ), Q. Ingram (PSI), M.-C. Sawley (CCS)

### Agenda

1. Approval of Agenda
2. Approval of Summary of CHIPP Board of 03 December 2004.
3. Discussion of CHIPP EB and next steps.
4. Discussion of Financial Requirements for CHIPP projects in 2008-11.
5. Divers
  - a) Outreach Activities (G. Dissertori).
  - b) Clarification of Board Membership for FNRS Professors.
  - c) Report on the ISDC meeting of CHIPP, 2-3 May 2005.
  - d) Future CHIPP meetings
  - e) Other

#### 1. Approval of Agenda

The Agenda of the meeting was agreed.

#### 2. Approval of Meeting Summary

The draft Summary of the meeting of 3 December 2004 was agreed with minor corrections, and is now posted on the CHIPP web page.

#### 3. Discussion of CHIPP EB and Future Steps

A principal reason for calling the meeting at short notice was the resignation from the CHIPP EB of Jean Pierre Derendinger. Following an extended discussion, the CHIPP Board thanked Jean-Pierre Derendinger for his contribution to CHIPP Executive Board activities.

Concern was expressed that CHIPP activities in education should not suffer as a result of Jean-Pierre's departure.

The Board considered 2 options: to elect a replacement for Jean-Pierre Derendinger, or to continue without a successor until the end of the current Executive Board mandate. Given that the current mandate of the Executive Board expires on December 31, 2005, the CHIPP Board voted (2 abstentions) to continue the mandate of A. Rubbia and A. Clark on the CHIPP Executive Board. A new election would be held on November 21, 2005.

#### **4. Discussion of Financial Requirements for CHIPP projects 2008-11.**

a) Prior to the Board meeting, tables listing the "wish list" of financial requirements in the period until 2011 were distributed for each of the 3 main CHIPP activities:

- Interactions at the high energy frontier: the Tevatron and LHC experiments, anticipated upgrades to the LHC experiments, and possible future construction commitments such as the International Linear Collider;
- Neutrino experiments: the OPERA and ICARUS experiments at Grand Sasso, the T2K project in Japan, R&D towards intense neutrino beams, and fundamental experiments such as neutrino-less double beta decay;
- Large fundamental experiments at the interface between particle physics and cosmology.

No spending estimates are presently available for educational activities.

b) There was an extended discussion on the basis of the tables.

- Construction funding for the completion of Swiss commitments to existing LHC experiments was not included
- Four categories of expenditure were identified for each of the 3 pillars noted above: operating and computing expenses for approved CHIPP projects, construction funding for well identified future projects, R&D funding for upgrades of approved projects or for future projects, and funding towards more speculative future projects.
- The Board asked A. Clark to revise the tables to better separate the different categories of expenditure. This was agreed.
- There was agreement that the existing experimental program was strong scientifically but was severely threatened by funding cuts. The Board emphasized the need for a detailed but realistic and adaptive budget planning with accepted priorities for each experimental direction to defend the CHIPP scientific programme.
- Small and innovative ancillary R&D activities in addition to the priority activity were broadly supported.
- The Board recognized that a consensus on the CHIPP scientific programme in the neutrino sector was emerging, but that work was still needed to focus the programme within reasonable financial guidelines. The Board recognized a strong interest in the "astroparticle" programme, but not yet a coherent strategy. The Board expressed satisfaction with the outcome of recent CHIPP workshops concentrating on the scientific programme in these sectors. Concern was expressed about the continued diversity of effort in those sectors.

- c) Concerning the programme at the frontier of high energy collisions, the following major comments were made by the Board:
- Commitments by Swiss groups to the CDF and D0 experiments were valuable, but should be phased out as LHC comes on line.
  - Construction funding for the completion of Swiss commitments to existing LHC experiments should not be included
  - M&O requirements for ATLAS, CMS and LHCb were well established and were necessary to adequately exploit the Swiss commitment to LHC. It would be helpful if these direct contributions to CERN could be separated from the remainder of the programme. A major financial commitment beyond normal M&O to pixel layer replacements in the CMS experiment was not foreseen by PSI.
  - The CSCS “Tier 2” GRID computing facility was now operational and that funding requirements for the development of that centre as well as institutional “Tier 3” facilities was being clarified. The Board expressed satisfaction at this development, and thanked the CSCS management, and the CHIPP Computing Board, for their efforts. They noted the need to define a satisfactory operational arrangement (MOU). A. Clark emphasized the need for at least one physicist-informaticien attached to each experiment to ensure an interface between the experiments, the Swiss physics groups, CSCS and local computing services. A CHIPP workshop would be held at CSCS Manno on 25-26 August 2005.
  - The necessity to start R&D towards a luminosity upgrade of the LHC was recognized but there was a feeling that it should not be exaggerated and should be monitored closely. It was recognized that if/when the ILC is constructed, there would certainly be a Swiss commitment. The Board recommended the merging of these categories as “post-LHC upgrade”.
- d) Concerning the neutrino programme:
- The OPERA and ICARUS experiments for the Gran Sasso programme are under construction and the expected M&O costs are well defined. Computing resources could be shared with the LHC effort.
  - The T2K and MICE programmes were defined, but there was concern at what level of Swiss commitment could realistically be expected.
  - It was requested that other proposed or ongoing activities should be listed in a category of detector and accelerator R&D. MICE was considered as accelerator R&D.
- e) Concerning the “astroparticle” programme:
- With the exception of the M&O/computing costs for the AMS experiment, the scientific programme is not well established, with diverging interests, uncertain times-scales, and uncertain financial implications.
  - The Board took note of the scientific importance of fundamental questions such as dark matter, dark energy, quantum gravity, the identification of gamma ray burst and the source of high energy cosmic rays, and encouraged further workshops as well as R&D to develop the scientific programme.
- f) Next steps:
- A Clark will circulate revised draft tables reflecting the comments made, to Board members as soon as possible.

## 5. Divers

- a) Outreach Activities (G. Dissertori).. Because of lack of time, this item was deferred.
- b) Clarification of Board Membership for FNRS Professors. It was agreed by the Board that CHIPP members who are recipients of FNRS Professorships should be members of the Board.
- c) Report on Versoix meeting of CHIPP, 2-3 May 2005. Because of a lack of time, this item was deferred. A. Clark noted that a scientific report and financial statement needs to be submitted in due course.
- d) Future CHIPP meetings.
  - August 25-26, 2005, CSCS Manno.  
A CHIPP workshop organized jointly by CSCS and the CHIPP Computing Board to discuss the computing needs for the physics exploitation of LHC data by Swiss groups.
  - September 28-29, 2005, PSI  
Plenary Scientific meeting of CHIPP
  - November 21 (pm), 2005. CHIPP Board meeting, location to be determined.
  - Follow-up neutrino and astroparticle workshops: time and place to be determined.

The meeting closed at 18:15, due to travel constraints of the participants.