



CMS

11 March 2013

Minutes of the 35th LHC Resource Review Board Meeting (CERN, Geneva, 30th October 2012)

Present:

C. -E. Wulz (Institut fuer Hochenergiephysik /HEPHY, Austria)
 J. Lemonne (FWO, Belgium)
 J. Sacton (FNRS, Belgium)
 A. Maciel (RENAFAE, Brazil)
 Y. Zhang (National Natural Science Foundation, China)
 Q. Li (IHEP, Beijing, China)
 P. Patiño (Colciencias, Colombia)
 C. Carrillo Montoya (Universidad de Los Andes, Colombia)
 J. Äystö (Helsinki Institute of Physics, Finland)
 P. Eerola (University of Helsinki, Finland)
 P. Chomaz (CEA Saclay, IRFU, France)
 L. Serin (CNRS/IN2P3, France)
 Y. Sirois (IN2P3, France)
 K. Ehret (BMBF, Germany)
 H. Prasse (Federal Ministry of Education and Research, Germany)
 M. Fleischer (DESY, Germany)
 K. Borras (DESY, Germany)
 A. Stahl (RWTH Aachen, Germany)
 C. Fountas (University of Ioannina, Greece)
 T. Csorgo (Wigner RCP-RMKI, Hungary)
 G. Vesztegombi (Wigner RCP-RMKI, Hungary)
 K. Mazumdar (TIFR, Mumbai, India)
 A. Zoccoli (INFN, Italy)
 F. Bedeschi (INFN, Italy)
 N. Pastrone (INFN, Italy)
 Y-D. Song (Ministry of Education, Science and Technology, MEST, Korea)
 H. Kim (NRF, Korea)
 B. Lee (NRF, Korea)
 J. Krolukowski (University of Warsaw, Poland)
 M. Gorski (HNIN, Polish Academy of Sciences, Poland)
 G. Barreira (Laboratório de Instrumentação e Física Experimental de Partículas /LIP, Portugal)
 V. Matveev (Institute for Nuclear Research, Russian Academy of Sciences, Russia)
 A. Petrov (Russian Mission, Geneva)
 V. Savrin (Moscow State University, Russia)
 I. Golutvin (RDMS-DMS, Dubna, Russia)
 V. Karjavine (JINR, Dubna, Russia)
 F. del Aguila (Ministry Economy and Competitiveness - U. Granada, Spain)
 J. Alcaraz Maestre (CIEMAT, Madrid, Spain)
 O. Schneider (CHIPP, Switzerland)
 R. Wallny (IPP, ETH Zurich, Switzerland)
 Q. Ingram (PSI, Switzerland)
 G. W-S. Hou (National Taiwan University /NTU, Taiwan)
 I. Koca (Turkish Atomic Energy Authority, Turkey)
 A. Medland (STFC, United Kingdom)
 G. Hall (Imperial College London, United Kingdom)
 S. Gonzalez (National Science Foundation, United States of America)
 J. Sowinski (Department of Energy, United States of America)
 J. Stone (Department of Energy, United States of America)
 G. Crawford (Department of Energy, United States of America)
 S. Rolli (Department of Energy, United States of America)
 J. Butler (Fermilab, United States of America)
 C. Newman-Holmes (Fermilab, United States of America)

CMS: A. Ball, A. Charkiewicz, I. Fisk, J. Incandela, A. Petrilli, T. Rodrigo, J. Varela
CERN: S. Bertolucci, S. Foffano, R. McLaren, C. Saitta, J. Salicio Diez, E. Tsesmelis, E. Van Hove

Scrutiny Group: B. Loehr, E. Iacopini, S. Schmeling, C. Touramanis

Excused: P. Bloch (CERN), E. Gazis (NTU Athens, Greece), R. D. Heuer (CERN), Th. Lagrange (CERN), S. Lettow (CERN)

Documents can be found in the RRB indico pages; accessible via the LHC-RRB home page
<http://cern.ch/committees/all/welcomeLHCRRB.html>

1. Introduction. S. Bertolucci, Director of Research and Scientific Computing.
S. Bertolucci welcomed delegates to the 35th meeting of the CMS LHC Resource Review Board.

2. Approval of the minutes of the last meeting. S. Bertolucci, Director of Research and Scientific Computing.

CERN-RRB-2012-060 (report)

The minutes of the last RRB were approved without comments.

Formal Agreement on Implementation of the New Operating Arrangements. Sergio Bertolucci. CERN-DRC-2012-043 (letter)

S. Bertolucci asked the delegates to approve the Implementation of the New Operating Arrangements as communicated in the above letter. Several Funding Agencies requested an exchange of signed letters and this would take place. No objections were raised and the proposal was accepted.

3. Status of the experiment. J. Incandela, Spokesperson
CERN-RRB-2012-098 (report), CERN-RRB-2012-100 (report). The slides are available on the RRB agenda.

In his presentation J. Incandela covered the following topics:

- The challenges ahead
- CMS data taking 2012
- LHC Physics results
- Recent results
- Upgrades
- Upgrade financial plan

He concluded that:

- CMS is performing extremely well in 3rd year of operation!
- Major Discovery: A new boson with mass of 125 GeV
- Wave of publications on 2011 data, 2011+2012 data
- Good progress preparing for the future
 - LS1 planning & Upgrades

- Strong endorsement by LHCC for the HCAL and Pixels upgrades

CMS is deeply grateful to all Funding Agencies for their invaluable support.

G. Crawford congratulated CMS for the spectacular results. He announced, on behalf of the US, that they were proud to be part of the collaboration and that they will continue to contribute to the Upgrades and commit to cover the full cash payment into the Common Fund.

Concerning the Upgrade MoU addendum, J. Äystö asked if the principle was to work on a project-by-project basis. J. Incandela replied that this was indeed the case; since not all Funding Agencies were involved in all projects it would be difficult to have one addendum. A. Charkiewicz confirmed that the plan was to advance project by project. For example the two approved TDRs would now be followed by addenda. For common Items there will be one addendum, which applies to all Funding Agencies.

P. Chomaz asked for more information on the financial commitments for Phase 2. J. Incandela replied that the figure would be in the region of 300 MCHF.

P. Chomaz expressed concern on the lack of a global view of the priorities. He was concerned that the Funding Agencies would receive two requests; one small (~15%) closely followed by another much larger request. P. Chomaz emphasised that it was very important to get organised to fund upgrades.

T. Medland also congratulated CMS on their important results. Looking ahead, the balance between science and resources was essential. A lot had been achieved in managing costs and this was being taken seriously. Nevertheless, it would become increasingly difficult for the Funding Agencies to maintain the level of funding for M&O, to meet requirements for computing resources and fund Upgrades over the next five years. He asked if options have been considered for the case where the optimum funding was unavailable on the required timescales. J. Incandela replied that if the funds were received with a delay, solutions could be found. However, if funds were unavailable then the only solution was to find new members or to de-scope.

S. Bertolucci emphasised that it was important to focus on the first Phase, the second was still undefined. P. Chomaz was concerned that this strategy could lead to a delay in Phase 2. There was a need to raise funds, perform R&D and then construction. J. Incandela agreed that the focus is on Phase 1 at this time.

INFN asked how much of the budget of 66 MCHF was also ready covered and what would be the situation at the next RRB. J. Incandela replied that it was difficult to be precise before the MoU addenda are signed by concerned Funding Agencies. However, the financing of Sub-system Upgrades, which constitutes some 75% of the Phase I budget, is considered as relatively secure. The remaining 25%, which is made up of Upgrade Common Items, is about half secured at present and we are negotiating the rest over the next months.

4. LHCC deliberations (paper only). E. Tsesmelis, LHCC Scientific Secretary CERN-RRB-2012-105 (report)

E. Tsesmelis reported that the LHCC considers that CMS has made excellent progress in all aspects of the experiment and the Committee congratulates the CMS Collaboration on its achievements.

The LHCC also endorses the HCAL and Pixel upgrades without reservations.

5. Financial matters. C. Saitta, CERN Finance and Procurement Department CERN-RRB-2012-103 (report). The presentation is available via the RRB agenda page.

C. Saitta presented the changes in the status of Common Fund accounts with respect to the above report.

Maintenance & Operations – Category A; additional Contributions received as from 1 September 2012 totalled 1.46 MCHF. For Member States, outstanding contributions stood at 716 kCHF. For non-Member States outstanding contributions stood at 124 kCHF for the period before 2012 and 275 kCHF for 2012.

6. M&O Budgets. A. Charkiewicz, Resources Manager CERN-RRB-2012-101 (report), CERN-RRB-2012-102 (presentation)

A. Charkiewicz began with the status of the M&O MoU signatures.

There were some revisions to the M&O Draft Budget 2013 concerning the:

- Online replacement model
- Cost implications of identified generic failures in CMS infrastructure and common systems or other unforeseen items
- Change of the LHC schedule
- Cost of Video-conferencing services
- Smoothing of the budget over the period 2013-2016.

The Resources Manager presented the 2013 M&O-A Budget; the total, including electricity, is 15.4 MCHF. He gave an overview by subsystem from 2011 until 2016.

Turning to the 2013 M&O-B, A. Charkiewicz revealed the budget for each category for the various detectors and gave an overview for the years 2012-2016.

He then listed the M&O Funding Agency Contributions for M&O-A and B with the total to be invoiced.

Concerning the M&O-B Scrutiny, A. Charkiewicz stated that:

- A scrutiny was put in place for the M&O-B Budget in a similar way as already carried out in the course of 2011
- The RRB Scrutiny Group (SG) carried out an in-depth scrutiny of the finances of all the CMS Sub-systems
- The process was carried out in two stages:
 - An internal scrutiny was carried out by Internal Scrutiny Groups (ISG) established for each Sub-system and provided a written report to the CMS Resources Manager

- Reports of the ISGs were transmitted to the RRB SG together with other relevant documentation. This was complemented by a dedicated meeting and presentations from all CMS Sub-systems
- The RRB SG concluded that the budgetary process in each Subsystem is carried out in a thorough and satisfactory manner.

Concerning the outstanding contributions for M&O-A, A. Charkiewicz indicated that:

- There are no outstanding contributions for 2002-2010
- The total outstanding amount for 2011 is only 124 kCHF
- The total outstanding amount for 2012 is 991 kCHF which is 7 % of the total invoiced 2012 contributions

On behalf of CMS, A. Charkiewicz expressed his appreciation for the timely payment of contributions by the Funding Agencies and asked those with due contributions to make these payments as soon as possible.

A. Charkiewicz concluded his presentation with graphs of the evolution of the M&O.

CMS expresses its appreciation to the RRB Scrutiny Group and especially Bernd Loehr, who is finishing his mandate as SG Chair, for the constructive help in closing the 2011 Expenditures and preparing the 2013 Draft Budget.

The RRB approved the Draft Budget for M&O Category A for the year 2013 and took note of the Draft Budget for M&O Category B for the year 2013 and its sharing among the CMS Funding Agencies.

B. Loehr congratulated CMS for having managed the deficit at the end of 2009 coupled an unexpected expenditure of 1.1 MCHF (bushing replacement due to leaks) at the beginning of 2010 and closing 2010/2011 with a slightly positive cash balance. He remarked that it was difficult to compare the Scrutiny of experiments for M&O-B as the approach of CMS and ATLAS for M&O-B were different. ATLAS requires cash contributions using an algorithm based on PhD count; allowing a rigorous scrutiny; CMS does not invoice centrally via CERN and the amount is not under the control of the Resources Manager.

7. Summary. S. Bertolucci, Director of Research and Scientific Computing.

There being no further business, S. Bertolucci thanked the delegates and closed the meeting. The proposed dates for the next RRB are April 15th-17th 2013.