



ALICE

15 September 2009

Minutes of the 26th LHC Resource Review Board Meeting (CERN, Geneva, 29th April 2009)

Present:

D. Adamova (Nuclear Physics Institute ASCR, Czech Republic)
J. Niederle (Institute of Physics AS CR, Czech Republic)
J. Hansen (Niels Bohr Institute, Denmark)
J. Rak (JYFL/HIP, Finland)
B. Erazmus (IN2P3/CNRS, France)
Y. Schutz (LAL Orsay, France)
M. Garcon (CEA/DSM/IRFU/DIR, France)
D. Müller (GSI-PT, Germany)
M. Pantea (Federal Ministry of Education and Research, Germany)
R. Santo (Institut für Kernphysik, Germany)
G. Vesztergombi (KFKI-RMKI, Hungary)
P. Mukherjee (Department of Atomic Energy, India)
Y. Viyogi (Department of Atomic Energy, India)
F. Ferroni (INFN, Italy)
M. Basile (INFN, Italy)
P. Giubellino (INFN, Italy)
G. Herrera-Corral (CINVESTAV, Mexico)
F. Linde (NIKHEF, Netherlands)
P. Kuijer (CERN/NIKHEF, Netherlands)
B. Jacobsen (The Research Council of Norway, Norway)
J. Królikowski (Univ. of Warsaw and Ministry of Science and Higher Education, Poland)
I. Yoo (Pusan National University, Republic of Korea)
F. Buzatu (Institute of Atomic Physics, Romania)
Y. Kozlov (Federal Agency of Science and Innovations, Russia)
R. Lednicky (JINR, Russia)
V. Savrin (Institute of Nuclear Physics, Russia)
A. Vodopyanov (JINR, Russia)
A. Petrov (Russian Mission, Russia)
Z. Hlavacikova (Ministry of Education of the Slovak Republic, Slovakia)
P. Ladron De Guevara (CIEMAT, Spain)
H. Gustafsson (Lund University, Sweden)
P. Karlsson (Swedish Research Council, Sweden)
G. Zinovjev (Bogolyubov Institute for Theoretical Physics, Ukraine)
J. Seed (STFC, United Kingdom)
D. Evans (STFC, United Kingdom)
H. Marsiske (U.S. Department of Energy, United States of America)

CERN

S. Bertolucci (chairman), P. Bloch, J. De Groot, R. Heuer, T. Lagrange, R. McLaren (secretary), E. Tsismelis, E. Van Hove

ALICE

C. Decosse, L. Leistam, J. Schukraft

Scrutiny Group Chair

B. Loehr

Apologies

A. Sissakian (JINR, Russia)
G. Fortuna (INFN, Italy)
T. Siemiarczuk (Soltan Institute for Nuclear Studies, Poland)
C. Eom (KICOS, Republic of Korea)
J. Ha (Ministry of Education, Republic of Korea)
D. Lee (KICOS, Republic of Korea)
E. Gazis (National Technical University of Athens, Greece)
T. Csörgo (MTA KFKI RMKI, Hungary)
D. Riska (Helsinki Institute of Physics, Finland)
J. Tuominiemi (Helsinki Institute of Physics, Finland)
P. Chomaz (IRFU, France)

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

1. Introduction. R. Heuer, Director General

R. Heuer welcomed delegates to the meeting.

2. Approval of the minutes of the last meeting. R. Heuer, Director General

CERN-RRB-2009-001 (report)

The minutes of the last ALICE RRB were approved without comment.

3. Status of the experiment. J. Schukraft, Spokesperson

CERN-RRB-2009-010 (report) CERN-RRB-2009-011 (presentation)

J. Schukraft started with news from the collaboration. There were no new members but there were ongoing associate membership discussions with Comsats and Pinstec (Pakistan). There have also been first contacts with institutes based in Egypt and Lebanon.

The EMCAL TDR has been approved by the LHCC and the Research Board in February 2009. The construction and installation will be from 2009 until 2011.

The ALICE upgrades are being coordinated within a more formal organisation led by P. Giubellino. An upgrade workshop was held in March 2009; ALICE is aiming for upgrades in 2013/14 (phase I) or 2016/17 (phase II).

Turning to the shutdown activities, J. Schukraft stated that ALICE had been in shutdown mode since mid October 2008 and had completed the following activities:

- Re-arranged of cabling on mini-frame (ITS,TPC) to allow better access to electronics
- Detector and infrastructure consolidation (a bad batch of TPC capacitors; recovery of some ITS modules, improved SPD cooling, ...)
- Detector installation (TRD, EMCAL, PHOS, PMD) 3 PHOS, 6-7 TRD modules, 2-4 EMCAL modules, complete PMD
- Add capacity to DAQ (40% -> 100%) and HLT (20% -> 60%)

- Improve experiment control and operation (DCS, ECS systems)
- Analysis of beam and cosmic data taken in 2008
- Check detector performance, alignment & calibration
- Restart commissioning and cosmic data taking; first 2 week cosmic run of muon spectrometer in March

He then illustrated these achievements with a number of slides which also included performance measurements and status for the TPC, ITS, SDD, TOF and the Muons.

Moving from the detectors to the DAQ system, J. Schukraft reported that DAQ deployment was increasing from 40% towards 100%. Event building and data recording performance has increased by a factor of 3 and data quality monitoring processing power has increased by a factor of 4.

New PCs have been benchmarked and results show the relative performance of present and new generations of Intel processors.

The HLT, with 500 CPU's, operated very successfully performing online reconstruction and data reduction. The full data path was tested. A hardware upgrade is in progress which will add another 900 CPU cores (~ 60% capacity). Software developments are ongoing to find the correct algorithms to select and reduce the data.

At the LHC Computing RRB, the updated resource requirements 2009/10 (following new LHC schedule) were presented, based on 10 months pp and 1 month PbPb (end 2010) running and reduced Monte Carlo simulations (the latter in order to save resources).

Turning to the ALICE Shutdown schedule, J. Schukraft showed the plans for installation and commissioning along with the interaction with LHC activity.

Summarising, he said that the shutdown activities were going on according to schedule. The calibration/alignment and measurements of detector performance were progressing very well with 2008 cosmic data and most detectors are already very close to (or within) specifications. Alice was in good shape and ready to take data in 2008 and will be even better (and more complete) in 2009 !!

There were no questions and S.Bertolucci commented that the presentation was clear and reassuring.

4. LHCC Deliberations (paper only). E. Tsesmelis, LHCC Scientific Secretary CERN-RRB—2009-016

E. Tsesmelis reported that the presentation was in line with the LHCC report. The on-going work is reasonable and it includes installation and consolidation work. The LHCC

considers that ALICE will be ready for beam this year.

5. Financial matters. T. Lagrange, Head of CERN Finance and Procurement Department
CERN-RRB-2009-017 (report), CERN-RRB-2009-018 (presentation)

T. Lagrange gave an update to the Financial Report, reporting that 20 kCHF has been received from Mexico; as such the remaining total contributions are 486 kCHF for Construction Core Common Fund and Commissioning&Integration (Membership Fees and Cash).

A number of additional contributions were received for M&O-A totalling 624 kCHF. This leaves outstanding contributions for M&O-A at 2 MCHF for member states and 2.5 MCHF for non-member states.

There were no questions arising from this presentation.

6. Construction Budgets. C. Decosse, ALICE Resource Coordinator
CERN-RRB-2009-012 (report) CERN-RRB-2009-013 (slides)

C. Decosse began by thanking J. De Groot for the excellent state of accounts.

She continued with the a report on 2008 CORE expenses, recalling that the total budget was 8.3 MCHF; the total expenditure was 6.7MCHF. The difference between the two figures is due to the delay of 2 PHOS super modules, delay in the TRD electronics and the EMCAL cost.

The Cumulative Expenditure from 1997–2008 stands at 143 MCHF.

The 2009 CORE budget is estimated at 11 MCHF, although the PHOS costs may change. Within this budget year, the DAQ will be fully completed and the TRD will be installed.

Looking ahead, the preliminary 2010 CORE construction budget includes spending on the TRD, the HLT and the EMCal; a total of 4.5 MCHF.

The Common Fund has received 20 kCHF from Mexico. In total 16.4 MCHF has been received, 1.8 of which was in-kind contributions. 486.3 kCHF (mainly unpaid fees) is still outstanding. The status of funding from China is unclear and discussions are under way. The cash balance is 268 kCHF, in part due to White Paper money from CERN. The estimates for 2009-2010 foresee income of 754 kCHF and expenditures of 700 kCHF.

Turning to the MoU Addenda, C. Decosse reported that participation of two institutes from Brazil, Universidade Estadual de Campinas and Universidade de Sao Paulo were under discussion. A new Addendum was signed on April 28th with two Korean institutes, Pusan National University and Yonsei University.

There were no questions arising from this presentation.

7. M&O Budgets. C. Decosse, ALICE Resource Coordinator
CERN-RRB-2009-014 (report), CERN-RRB-2009-015 (slides)

C. Decosse began with a report on 2008 M&O Income and Expenses; invoices totalled 15.9 MCHF and received 14.9 MCHF with an additional 475 kCHF of in-kind contributions. She highlighted the problem of the outstanding contribution from Poland for 2008 and 2009. There had been progress with China and 73 kCHF has been paid. Looking at Cat A expenditure, the budget was 4.5 MCHF of which 96% has been spent. On the subject of power budget only 13% has been used; there will therefore be a rebate to non-member states, as detailed in slide 11.

Analysis of the cash flow during the years 2002-2008 shows a positive balance of 1.6 MCHF, but this figure includes contributions for 2010 and there are still open commitments for around 0.5 MCHF. A more realistic figure for the end of 2008 figure is around 116 kCHF.

Turning to the Status of 2009 M&O Budget, C. Decosse showed invoices totalling 5.4 MCHF and had received 1.3 MCHF. Preliminary Estimates for 2009 through 2013 predict a fairly stable M&O Budget with a slight increase in the spending for on-line computing partly balanced by a reduction in gas costs and pool rental.

The forecast for the M&O budgets category B from 2010-2013 indicates little change; the only major increase is for the ZDC in 2012 to cover the costs of replacing part of the detector.

Korea has signed a new addenda to the M&O Memorandum of Understanding, discussions are on-going with Brazil and a new document is being prepared South Africa.

There were no questions arising from this presentation.

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

S. Bertolucci summarised that ALICE was in good shape technically and financially and was waiting for beam.