



ALICE

11 March 2013

**Minutes of the 33rd LHC Resource Review Board Meeting
(CERN, Geneva, 31st October 2012)**

Present:

A. Maciel (RENAFAE, Brazil)
 D. Adamova (Nuclear Physics Institute ASCR, Czech Republic)
 M. Sumbera (Nuclear Physics Institute ASCR, Czech Republic)
 N. Fejksová (Ministry of Education, Youth and Sports, Czech Republic)
 J. Aysto (Helsinki Institute of Physics, University of Helsinki, Finland)
 J. Rak (Jyväskylä University, Finland)
 D. Guillemaud Mueller (CNRS/IN2P3)
 P. Chomaz (IRFU, France)
 H. Prasse (Federal Ministry of Education and Research, Germany)
 K. Ehret (BMBF, Germany)
 T. Csorgó (Wigner RCP-RMKI, Hungary)
 G. Vesztegombi (Wigner RCP-RMKI, Hungary)
 K. A.P. Sinha (Department of Atomic Energy, Mumbai, India)
 T. Nayak (Variable Energy Cyclotron Centre, India)
 L. Cifarelli (Centro Fermi, Roma, Italy)
 R. Nania (INFN, Sezione di Bologna, Italy)
 E. Nappi (INFN, Sezione di Roma, Italy)
 H. Kim (Ministry of Education, Science and Technology, Korea)
 I.-K. Yoo (Pusan National University, Korea)
 B. Jacobsen (The Research Council of Norway, Norway)
 T. Siemarczuk (HNIN, Polish Academy of Sciences, Poland)
 J. Krolikowski (University of Warsaw, Poland)
 F.D. Buzatu (Institute of Atomic Physics, Bucharest, Romania)
 M. Petrovici (IFIN-HH National Institute of Physics and Nuclear Engineering, Bucharest, Romania)
 M. Gheatta (ISS, Romania)
 V. Matveev (Institute for Nuclear Research, Russian Academy of Science, Russia)
 A. Petrov (Permanent Mission of Russia in Geneva)
 V. Shevchenko (National Research Council, Kurchatov Institute, Russia)
 V. Savrin (Institute of Nuclear Physics, Moscow State University, Russia)
 A. Vodopyanov (JINR, Dubna, Russia)
 Z. Hlavacikova (Ministry of Education, Science, Research and Sports, Slovak Republic)
 D. Adams (Department of Science and Technology, South Africa)
 V. Spannenberg (iThemba Labs, South Africa)
 F. del Aguila (Ministry Economy and Competitiveness - U. Granada, Spain)
 E. Olsson (Swedish Research Council, Sweden)
 A. Oskarsson (Lund University, Sweden)
 G. Zinovjev (Bogolyubov Institute for Theoretical Physics, Ukraine)
 A. Medland (STFC, United Kingdom)
 D. Evans (University of Birmingham, United Kingdom)
 J. Sowinski (Department of Energy, United States of America)

ALICE: C. Decosse, P. Giubellino, J. Hadre, L. Musa, Y. Schutz, J. Wessels
 CERN: S. Bertolucci, S. Foffano, S. Lettow, R. McLaren, C. Saitta, J. Salicio Diez, E. Van Hove
 Scrutiny Group: E. Iacopini, B. Loehr, C. Touramanis
 Excused: E. Gazis (NTU Athens, Greece), F. Linde (NIKHEF, The Netherlands)

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 meeting.

2. Approval of the minutes of the last meeting. S. Bertolucci, Director of Research and Scientific Computing
CERN-RRB-2012-062 (report)
The minutes of the last ALICE RRB were approved without comment.

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 had requested signed letters and these would be sent. No objections were raised and the proposal was accepted.

3. Status of the experiment. P. Giubellino, Spokesperson
CERN-RRB-2012-067 (report). The slides can be consulted on RRB web page.

P. Giubellino began by recalling some of the major events of the last 6 months and news from the collaboration. He continued with the goals and some results of the 2012/3 run. Looking further ahead, the spokesperson presented plans for LS1, LS2 with timelines and running scenarios.

Turning to the upgrades P. Giubellino began with cost estimates and a time profile for expenditures. He then gave details of improvements to the detectors including R&D activities and reports submitted to the LHCC.

In summary P. Giubellino stated that:

- ALICE continues to harvest the results of the HI, pA and pp runs
- The Detector continues to provide excellent performance, and ALICE as a whole confirms its readiness and commitment
- Looking forward to the upcoming pA run!
- The LoI for the Upgrade of ALICE has been endorsed by the LHCC, TDRs ahead!

P. Giubellino concluded by thanking the Funding Agencies for their continued support.

D. Guillemaud Mueller requested further details of the sharing of the cost of the Upgrade. P. Giubellino replied that the document contains costing of the items with a list of participating institutes. There are many new institutes looking to play a more significant role.

T. Medland congratulated the collaboration. The documentation was impressive and he appreciated the efforts made to find an optimal balance between scientific objectives and available funding. He asked for more details of timescales for decisions concerning Funding Agencies. P. Giubellino said that the picture was becoming clearer. This is also linked to R&D activities and the choice of technology and industry involvement. There is a tentative list which will be updated; this would not

be completely finished within a year, but there would be enough data to confirm that the upgrade was feasible.

P. Chomaz asked for a schedule for additional projects, for example the Muon Forward Tracker, there will be a decision in March and evaluation by LHCC in June. It would be difficult to get a commitment by Funding Agencies before September for this part of the project. P. Giubellino replied that there would not be a unique addendum for all projects but a number of addenda.

4. LHCC Deliberations (paper only). S. Bertolucci, Director of Research and Scientific Computing (replacing E. Tsesmelis, LHCC Scientific Secretary).
CERN-RRB-2012-073 (report)

On behalf of the LHCC, S. Bertolucci reported that the committee considers that ALICE has made excellent progress, despite the recent operational issues, and the Committee congratulates the ALICE Collaboration on its achievements.

Looking towards the Upgrades, the LHCC congratulates ALICE in view of the impressive progress during the last year as reflected in the Letter of Intent for the ALICE upgrade and the updated ITS Conceptual Design Report. The detector studies are encouraging, both for the ITS project and for the TPC upgrade. The ITS Option A (monolithic pixels only) seems very attractive, both in terms of performance and cost. Including the option of an optimised pad plane, the GEM-TPC tracking performance and the resulting momentum resolution are comparable to the existing MWPC-based TPC.

In addition, the LHCC commends this joint approach to heavy-ion physics and endorses the upgrade plans of the ALICE Collaboration. The Committee encourages further R&D towards the upgrade and is looking forward to the seeing the detailed technical solutions presented in the respective Technical Design Reports.

5. Financial matters. C. Saitta, CERN Finance and Procurement Department
CERN-RRB-2012-074 (report), CERN-RRB-2012-084 (presentation)

C. Saitta reported on changes since the above Financial Report.

Looking at the Construction CORE Common Fund, Commissioning and Integration, additional contributions totalling 72 kCHF had been received from Thailand and China Wuhan CCNU. Contributions were outstanding for India (150 kCHF), Korea (50 kCHF), Pakistan (50 kCHF) and Turkey (50 kCHF)

For M&O-A, additional contributions had been received from Brazil (60 kCHF), China Wuhan CCNU (26 kCHF), Germany, BMBF (119 kCHF), Japan (50 kCHF) and Poland (51 kCHF). Total Outstanding Contributions for Member States for 2012 was 108 kCHF and 230 kCHF from Non-Member States.

There were no questions arising from this presentation.

6. Budgets. C. Decosse, ALICE Resource Coordinator
Core construction budgets: CERN-RRB-2012-069. M&O budgets CERN-RRB-2012-071. The slides can be consulted on the RRB web page.

C. Decosse presented the 2013 CORE draft budget which amounts to 150 kCHF. She gave an overview of the contributions to the Common Fund and thanked China CCNU and Thailand Suranaree Univ. for their recent payments. This was complemented by a slide illustrating the Cash Flow for the CORE Common Fund from 1998 until 2012.

C. Decosse moved on to M&O-A, presenting a graph of the evolution of the budget requests between 2008 and 2012. She continued with the figures for 2013, 2014-2017 and details of the sharing of the 2013 draft budget. Subsequent slides illustrated the contribution, by Funding Agencies for 2002-2012 and the current status and cash balance.

C. Decosse then presented the Maintenance & Operations Cat. B 2013 draft budget and estimates for 2014-2016 and gave a breakdown of the 2013 M&O-B draft budget by sub-projects and by Funding Agencies and projects.

Maintenance and Operation cat. C continues to receive strong support from CERN. Activities include:

- Refurbishment of outdated electrical infrastructure on surface and in the counting rooms 660 kCHF.
- Building 3294 will have an addition floor for a cost of ~ 400 kCHF.
- New Storage building under discussion.

The Resource Coordinator then turned to the Common Fund for Upgrade, with extracts from the LoI for Upgrade (CERN-LHCC-2012-012, Chapter 5) on Common Projects (Common Fund). She presented the cost estimates for the Common Projects which totalled 5.5 MCHF and suggested a possible sharing between the Funding Agencies.

T. Medland requested clarification of the timescales for the Common Fund for the Upgrade; the TDR process would conclude towards the end of 2013 but instalments were planned to begin in 2013. C. Decosse stated that there will around 500 kCHF cash in Common Fund which allows time to define the schedule for Funding Agencies to contribute.

P. Giubellino added that the idea of early instalments was to help the Funding Agencies spread the cost over several years. What is important is that cash is available for spending in 2016 (2.3 MCHF), 2017 (1.2 MCHF) and 2018 (2 MCHF).

The RRB endorsed the budget proposals. The figures for the Upgrade are for information only.

P. Chomaz thanked the ALICE management for the professional presentation of the financial issues which was much appreciated by the Funding Agencies.

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.