



Minutes of the 19th Resources Review Board Meeting Held at CERN on 19th October 2005

Present:

Europe

P. Zavada (Nuclear Physics Institute, Prague)
D.O. Riska (University of Helsinki, Helsinki, Finland)
C. Cavata (CEA-Saclay, Gif-sur-Yvette, France), F. Staley
B. Erasmus (IN2P3, Paris, France)
Y. Schutz (Subatech, Nantes)
J. Richter (BMBF, Bonn, Germany), D. Müller (GSI, Darmstadt), R. Santo (Institut für Kernphysik, Münster)
G. Vesztegombi (KFKI-RMKI, Budapest, Hungary)
U. Dosselli (INFN, Italy), E. Nappi, L. Riccati
F. Linde (NIKHEF, Amsterdam, Netherlands), A. van Rijn
J. Królikowski (State Committee for Scientific Research, University of Warsaw, Poland),
M. Kowalski
N.V. Zamfir (Nat. Inst. for Physics and Nuclear Engineering, Bucuresti, Romania), L. Puscaragiu (Geneva Mission), D. Haseganu (Inst. for Space Sciences, Bucharest)
A. Petrov (Ministry of Education and Science, Moscow, Russia), V. Savrin
A. Sissakian (JINR, Dubna, Russia), A.S. Vodopianov
A. Sitarova (Ministry of Education of the Slovak Republic, Bratislava), L. Sandor
A.C. Lagerkvist (Swedish Research Council, Stockholm, Sweden)
G. Zinovjev (Bogolyubov Inst. for Theoretical Physics, Kiev, Ukraine)
R. Wade (PPARC, Swindon, United Kingdom), D. Evans

North America

T. Ferbel (DOE, Washington, observer)

Asia

C.V. Ananda Bose (DAE, Mumbai, India)
D-W. Kim (Kangnung National University, repr. MOST)

CERN

S. Bergerot, J.J. Blaising, J. Engelen (chairman), P. Geeraert, D. Jacobs, C. Jones (secretary),
D. Schlatter

ALICE

F. Carminati, H. de Groot, H-Å. Gustafsson, L. Leistam, J.P. Revol, J. Schukraft,

Scrutiny Group

M. Morandin

Apologies

C. Fabjan (ALICE), W. Shen (NSFC, Beijing), M. Sumbera (Nuclear Physics Institute, Prague),
J. Zinn-Justin (CEA-Saclay), M. Boda (NKTH, Budapest), B. Jacobsen (Norwegian Research Council, Oslo)

19th Meeting of the ALICE Resources Review Board RRB, 19th October 2005

Documents can be found at the URL <http://committees.web.cern.ch/Committees/LHCRRB/>, and are also listed in Appendix 1 of these minutes

1. Introduction

J. Engelen, Chief Scientific Officer

J. Engelen welcomed RRB delegates to this 19th session. He welcomed especially B. Erasmus as a new delegate representing IN2P3 and France, replacing S. Gales.

2. Approval of the Minutes of the 18th Meeting (CERN-RRB-2005-044)

The minutes of the 17th meeting were **approved** without comment. J. Engelen thanked C. Jones for having taken these minutes. In response to a question from R. Santo, J. Engelen confirmed that they would discuss later how to deal with late payments and the associated question of M&O A surplus.

3. Status of the Experiment

J. Schukraft, Spokesperson

Paper CERN-RRB-2005-087

Presentation CERN-RRB-2005-091

J. Schukraft welcomed the members to the 19th in the series of ALICE RRBs and presented the status report of the ALICE experiment.

3.1 Collaboration Status

Sejong University, Korea had been admitted to the collaboration and it had been agreed that they would participate in the offline computing. They were also members of EGEE. Grenoble, France was in the process of applying to join and they would contribute to muon arm alignment.

At the past Collaboration Board J. Schukraft had been re-elected as Spokesperson for 3 years until spring 2009. The two Deputies were H. A. Gustafsson (Lund) and P. Guibelino (Torino). There were three new members of the Management Board, namely R. Kamermans (Utrecht), J-P. Revol (CERN) and Y. Schutz (Nantes).

ALICE was continuing work on an "authorship policy". As part of this they were thinking along the lines of the ATLAS and CMS collaborations in connection with the late or non-payment of M&O contributions and after proper discussion in the Collaboration they would come back to a future RRB on this issue.

ALICE had submitted its Computing TRD in June 2005.

3.2 Funding Issues

There had been progress in the US participation, and the proposal to add an Electromagnetic Calorimeter for Jet Physics (~ \$10M) had passed the first phase for R&D for around \$1.5M to be reviewed in December 2005. This included the support structure, which was needed early on, and the first super-module, which might be available for the winter shutdown 2007.2008. There was growing interest in Europe to participate in this EMCAL project driven by a convincing physics case ("jet quenching").

China wished to participate in the PHOS installation and integration for around 1-2 MCHF and the current agreement was that the money would be combined funding from Institutes and the Ministry of Education.

In Japan, the proposal (for around \$10M for TRD and PHOS) was not funded in 2005 despite strong interest to join. Some R&D money was available and they were already participating at a low level. Discussions were continuing.

In view of this, preliminary discussions had started with some of ALICE Funding Agencies to explore alternative means to complete the PHOS and TRD coverage, in case a significant participation from China and Japan would not materialize.

3.3 ALICE Detector

J. Schukraft then reported in detail on the status of the ALICE detector, including a number of the latest photographs. This interesting and important information can be found in both the paper and the presentation referenced above and is not further summarized in these minutes.

3.4 Summary

J. Schukraft summarized his talk in three points. As major milestones they had:

- the first (small but concrete) step towards US participation in ALICE.
- the L3 magnet and dipole final commissioning
- assembly of the 1st Silicon Pixel SPD sector, and 1st Silicon Strip Detector SSD ladder
- TPC ROC installation
- HMPID production was complete.

As major problems that had been solved there were:

- the short in L3 magnet had been “burned” away
- SSD module start-up problems at one production site resolved
- muon arm FEE (Manas) production defects solved
- TRD read-out board noise fixed
- additional manpower for critical items largely secured.

As major problems that remained or were new there were:

- the financing of the PHOS (China/Japan/Russia)
- the very tight schedule for ITS, to be reviewed in ALICE at end 2005
- SSD & SDD sensor production, module & ladder assembly
- shortage of computing resources, since the pledged resources were well below requirements, with a 30 to 50% deficit. The collaboration was looking at several methods by which this situation could be improved.

Discussion

J. Engelen thanked the spokesperson for this clear overview, reporting on very considerable progress. He invited comments both in this presentation and equally points raised in the paper on LHCC Deliberations below.

There being no questions J. Engelen commented that the problem signalled under resources for computing was starting to become understood quantitatively. J. Schukraft had sketched a few approaches to solving those problems, recognising that they would not go away by themselves. He understood that ALICE was in a special situation because of their extremely large event size. A solution was absolutely necessary, and a more generous availability of the GRID, without too many fences, would indeed benefit ALICE.

4. LHCC Deliberations (paper only)

Paper CERN-RRB-2005-079

LHCC Scientific Secretary, E. Tsemelis

Delegates had no further comments to make and the RRB **took note** of the report of E. Tsemelis

5. Financial matters

Paper CERN-RRB-2005-071

Head, CERN Finance Dept. P. Geeraert

Presentation CERN-RRB-2005-075

P. Geeraert presented a financial update on the situation as reported in his paper referenced above.

5.1 Status of Common Fund accounts

In the Common Fund they had received additional income of 252 kCHF and made new payments of 268 kCHF, which left a balance for the Common Fund account of 4.09 MCHF with 1.3 MCHF of outstanding commitments. These new contributions had been received from Denmark, France (Saclay), Germany, Hungary, India and Poland.

There were outstanding membership fees totaling 70.5 kCHF, from the member state countries Greece and Poland for 2003/2004 and from Greece, Poland, Germany (BMBF) and the Slovak Republic for 2005. Outstanding membership fees for a total of 212 kCHF were owed by the non member states Armenia, China, Croatia, Mexico, JINR (Dubna), Ukraine, USA and South Africa. Thus the total outstanding membership fees amounted to 282.5 kCHF.

5.2 Status of M&O accounts

Recent income and expenditure for M&O A amounted to 35 kCHF and 121 kCHF respectively, leaving a positive balance of 1 MCHF and outstanding commitments of 47 kCHF. Additional M&O contributions had been received from JINR, Dubna for 35 kCHF, and 14 kCHF from Italy already for 2006.

A total of 207.5 kCHF of outstanding M&O A contributions was owed by Greece, Poland, the Slovak Republic and the United Kingdom as member states. For non member states this total was much larger at 502.4 kCHF of which 299 kCHF was for 2005. Contributions were owed by Armenia, China, Croatia, Mexico, Romania, Russia, JINR, Ukraine, USA and South Africa.

There being no questions, J. Engelen noted that the situation for these outstanding payments was not ideal, and he trusted that the silence of the delegates indicated that suitable diplomacy to resolve this was being undertaken outside of the meeting. He noted that the Greek delegate had made a statement at an earlier RRB this week concerning some positive developments.

J. Engelen responded to the earlier question of R. Santo concerning such M&O late payments and any M&O surplus. He noted that the Scrutiny Group Chairman would address the issue of the surplus by presenting a model for dealing with this in a way which would benefit the agencies which had paid. For the late payments ATLAS and CMS were putting in place procedures which were at the discretion of the collaboration board, and he invited ALICE and LHCb to look at such procedures. He trusted and hoped that it would never happen but, if groups could not live up to their agreed obligations, that would lead to a reduction in the number of authors and eventually to a complete disappearance from the papers of that group. In such a case the final body to endorse such a sanction would be this board.

The RRB **took note** of the Financial Update.

6. Construction Budgets

Paper CERN-RRB-2005-103

Resources Co-ordinator, J. De Groot

Presentation CERN-RRB-2005-105

6.1 CORE construction budget for 2006

J. de Groot presented the preliminary 2006 budget that he had shown at the April RRB, adding up to a little more than 10 MCHF. He showed an update of this budget where the amount had increased to 14.9 MCHF. There were two explanations for this, one being that in the preliminary budget some things were overlooked at the preliminary stage, and secondly a number of things

from 2005 would spill over into 2006. He showed the same information by Funding Agency, indicating the detector systems concerned in each case.

He noted that at present only Finland intended to make a cash contribution (49 kCHF) to the Common Fund in 2006. He trusted that other Funding Agencies would consider contributions because there were considerable payments to be made.

From the Common Fund they would have significant expenditure in 2006 adding up to 3.1 MCHF represented in a table showing the breakdown into components. Data acquisition was starting to spend significant money and services were growing, as were costs for the vacuum chamber. The figures in the table included payments on existing commitments (e.g. signed orders/contracts) as well as new engagements.

The graph of annual payments and expenditure from the Common Fund for the years 1997 onwards, giving also the integral of those payments, showed that they were indeed approaching the 120 MCHF cost of ALICE towards the end of 2006. There would be still some payments in 2007 and 2008, notably for the data acquisition system.

He asked for questions at this stage about the proposed construction budget for 2006.

Discussion

A. Petrov asked for an explanation why the contribution for Russia, LHC-2, had risen from 870 kCHF to 1.150 MCHF between the preliminary budget and the proposed budget. J. de Groot replied that this was clearly dominated by the contribution to the photon spectrometer but that he would have to look at the details for an exact answer. He would do this immediately after the meeting and provide an answer.

6.2 Common Fund

J. de Groot showed a table of the Common Fund, and C&I contributions by Funding Agency. In a number of cases there were still significant amounts outstanding. He would be contacting Funding Agencies concerned. He showed a graph of the Common Fund and C&I by year starting in 1998 and showing also the cumulative total, currently at around 10 MCHF.

He showed the Common Fund Budget and fraction spent by year from 1998 and noted that in 2005 they had already spent more than in any previous year. He presented the cash flow balance of the Common Fund by year. At the end of 2005 ALICE should still have a balance of around 3MCHF, but the estimates for 2007/2008 predicted this would probably be slightly negative or zero within the error bars. In response to the question of R. Santo, it was confirmed that this graph included interest. There were no further questions.

7. M&O Budgets

Paper CERN-RRB-2005-104

J. De Groot

Presentation CERN-RRB-2005-106

7.1 Update on the 2005 M&O A budget

J. de Groot presented a table of the 2005 budget and the invoices as agreed at the RRB of October 2004 as a reminder. He noted that, as had been presented earlier by P. Geereart, there were significant amounts invoiced but not paid. He noted in particular the cases of Greece and Poland amongst the member states.

From the non member states there was significant outstanding money from China, but, as he had previously explained, China had not yet signed the MoU so this was open to discussion. Other invoices outstanding were for Dubna, Mexico, Ukraine, USA (Oak Ridge) and for South Africa. He understood that the later would be corrected soon.

He reported on 2005 expenditure to date, totalling 970 kCHF or 62% of the approved budget. Extrapolating to the end of the year they would spend 90 % of the budget.

7.2 2006 M&O A budget and sharing

J. de Groot showed the evolution between 2006 and 2009 of the M&O A. In comparison with the April budget only small corrections had been made. He presented this also in graphical form thus demonstrating the effect of the inclusion of the new contribution for core computing and infrastructure, and also that of power. He further presented a list of invoices by Funding Agency as proposed for this budget.

7.3 Cat. B M&O cost 2006-2009

J. de Groot showed the distribution of category B M&O cost for the years 2006-2009. This had been: agreed within the detector collaborations and discussed with the Funding Agencies concerned. He noted that the 2006 number for HMPID appeared erroneously as 200 kCHF in the document CERN-RRB-2005-104.

7.4 M&O MoU signatures

Finally J. de Groot showed the list of signatures on the MoU for M&O. Amongst the member states Greece had not yet signed. Amongst the non member states China had not signed, but they had not yet signed the construction MoU. Dubna, Mexico and Russia had also not yet signed.

7.5 M&O Scrutiny Group Report

M. Morandin confirmed to the members of the RRB that after examination of the number from the experiment the Scrutiny Group was recommending that this budget be approved. He added some remarks as requested on the topic of surplus M&O A money. The recommendation of the Scrutiny Group, after discussion with the resource coordinators, was that any surplus at the end of year N should be included as an initial income into the preliminary budget for the year N+2. In this way any reported budget under spending would result in a subsequent reduction of the funding agencies' obligations, for those that had paid the bill. He asked the RRB to endorse this principle.

The RRB **endorsed** the principle of dealing with the surplus as described above.

Discussion

R. Wade noted that this experiment seemed to be in an extreme position in non-collection of M&O money. It was difficult for him to understand how they could agree a request for M&O with such huge outstanding contributions. J. Schukraft referred back to the relevant table. The situation with Poland was the same as in the other experiments. The situation in Greece was also common to other experiments was but was on the way to resolution.

J. Królikowski emphasized that there had been legal obstacles to payment in Poland, which had now been cleared, and the Ministry had invited requests. He hoped this would be paid by the beginning of next year.

J. Schukraft noted that if the situations in Greece and Poland were resolved then the situation in all the member states would be correct. ALICE had a rather large fraction of contributions from non member states. One special case was China which had not yet signed the construction MoU. They did not wish to remove China as long as there was a reasonable hope that they would sign the MoU. After this they would decide whether there was any legal basis for the old M&O bills or not. Russia and JINR were big relative components and the fraction they had collected was greater than the other experiments, although the size of the contribution was also bigger. They were working on solutions to this problem and the introduction of the N+2 rule was an additional incentive to do this.

G. Zinovjev noted that at least the Kiev team part of the Ukraine contribution would be paid this year.

A. Petrov commented that there was an administrative process underway which would lead to the resolution of this problem.

J. Engelen thanked the UK delegate for provoking these comments and the spokesman for his clarifications. He hoped this would allow delegates to endorse the M&O A budget that ALICE required.

U. Dosselli commented on the core computing and infrastructure. INFN had decided to try to satisfy the core computing demand in-kind with people and eventually if necessary with money. J. Engelen noted that this was a very positive contribution.

The RRB **endorsed** the ALICE M&O budget for 2006.

8. M&O Scrutiny Group in 2006 J. Engelen

The composition of the Scrutiny Group in 2006 foresaw three changes, one external member from Germany to replace H. Gutbrod and for whom a proposal had been made, and two internal CERN members to replace A. Ceccucci and E. Tsismelis. The final composition would be agreed well before the next meeting.

9. Summary, Future Activities & A. O. B. J. Engelen

J. Engelen noted in summary that the RRB had heard a report made on ALICE which gave confidence that this experiment was making great progress to have an initial working detector in time in the summer of 2007. They had discussed financial issues which in certain instances were not solved yet. He was encouraged by some of the comments to be more active in this area. He invited delegates to make any further comments.

<p>The next RRB meetings in 2006 will take place at CERN on Monday 24th, Tuesday 25th and Wednesday 26th April 2006 and on the Monday 23rd, Tuesday 24th and Wednesday 25th October 2006</p>
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There being no questions and no further business, the Chairman thanked the participants and closed the meeting.

C. Jones
December 2005