



## Minutes of the 23<sup>rd</sup> Resources Review Board Meeting Held at CERN on 24<sup>th</sup> October 2007

### Present:

#### *Europe*

J. Niederle (Inst. Of Physics AS CR, Prague, Czech Republic), P. Zavada  
 J.D. Hansen (Niels Bohr Institute, Denmark)  
 D-O. Riska (University of Helsinki, Helsinki, Finland), J. Rak  
 J. Zinn-Justin (CEA-Saclay, France), F. Staley  
 F. Le Diberder (IN2P3, Paris, France)  
 P. Dupieux (LPC, Clermont-Ferrand)  
 P. Braun-Munzinger (GSI, Darmstadt, Germany)  
 R. Santo (BMBF, Germany)  
 D. Müller (GSI-BMF-PT, Germany)  
 G. Vesztergombi (KFKI-RMKI, Budapest, Hungary)  
 A. Bracco (INFN, Italy), E. Nappi  
 F. Linde (NIKHEF, Amsterdam, Netherlands), A. van Rijn  
 B. Jacobsen (Research Council of Norway)  
 J. Królikowski (Ministry of Science and Higher Education, Poland), J. Bartke, T. Siemiarcuk  
 F-D. Buzatu (National Institute for Physics, Bucharest, Romania), L. Puscaragiu  
 V. Savrin (Ministry of Education and Science, Moscow, Russia)  
 A. Sissakian (JINR, Dubna, Russia), A.S. Vodopianov  
 A. Sitarova (Ministry of Education of the Slovak Republic, Bratislava), L. Sandor  
 P. Ladron (CIEMAT, Spain)  
 P. Karlsson (Swedish Research Council, Stockholm, Sweden)  
 G. Zinovjev (Bogolyubov Inst. for Theoretical Physics, Kiev, Ukraine), G. Dubinsky (Nat. Academy of Sciences)  
 J. Seed (STFC, Swindon, United Kingdom), D. Evans

#### *North America*

E. Henry (DOE, USA), G. Rai,  
 J. Symons (LBNL, USA)  
 T. Cormier (Wayne State Univ., USA)

#### *Asia*

P. Ji (NSFC, China)  
 P. Dhekne (Bhabha Atomic Energy, India), M. Ganti (Variable Energy Cyclotron Centre)  
 N-J. Cho (Ministry of Science and Technology, Korea)  
 D.W. Kim (Kangnung National University)  
 H. Kim (?)  
 K. Song (Korea Foundation for Intern. Cooperation of Science)

#### *CERN*

J.-J. Blaising, J. Engelen (chairman), D. Jacobs, C. Jones (secretary), S. Lettow, B. Salami  
 (repl. P. Geeraert), J. Salicio Diez, S. Schmeling, E. Tsismelis, E. Van Hove, F. Sonneman

#### *ALICE*

F. Antinori, C. Decosse, H. de Groot, C. Fabjan, L. Leistam, J. Schukraft, Y. Schutz,

G. Lafferty (Chairman of the M&O Scrutiny Group Chairman)

## 23<sup>rd</sup> Meeting of the ALICE Resources Review Board RRB, 24th October 2007

### 1. Introduction

**J. Engelen, Chief Scientific Officer**

The Chairman, J. Engelen, welcomed the delegates.

### 2. Approval of the Minutes of the 22<sup>nd</sup> Meeting (CERN-RRB-2007-004)

The minutes of the 22<sup>nd</sup> meeting were **approved** without comment. J. Engelen thanked C. Jones for having taken these minutes.

### 3. Status of the Experiment

**J. Schukraft, Spokesperson**

Paper CERN-RRB-2007-065

Presentation CERN-RRB-2007-066

J. Schukraft welcomed the members to the 23<sup>rd</sup> in the series of ALICE RRBs. He presented the status report of the ALICE experiment.

#### 3.1 Collaboration News

J. Schukraft reported first on the composition of the Collaboration where two new Institutes had joined. LPSC Grenoble, which had been an associate member and was now a full member, would work on the EMCAL construction. The California Polytechnic State University, which was NSF funded, which would work on EMCAL software. In addition Yonsei University (Korea) had applied to join and a decision was expected at the next Collaboration Board.

There had been a number of elections and nominations over the summer. L. Riccato from Torino had been re-elected as the Collaboration Board Chairman. L. Leistam has been elected as Technical Coordinator, starting in April 2008. The Deputy Technical Coordinator would be W. Riegler, CERN. C. Fabjan would retire in 2008, having been the Technical Coordinator since February 2001. J. Schukraft wished to express his great appreciation for the tremendous efforts of C. Fabjan over these six years which had been very critical for ALICE. They had also nominated a first Run Coordinator which was P. Kuijter from NIKHEF. Spokespersons elections would be held in July 2008.

In terms of funding for the EMCAL, Italy-INFN had approved the new funds for 2008. In France-CNRS the funding had already been approved in March 2007. The majority of the funds were requested from the USA-DoE, and the final step of their funding procedure, the CD2/3 review, would be held on the 18/19 December 2007.

ALICE awarded one more ALICE Industrial Award to Hewlett Packard (University Relations, HP Labs – Palo Alto) for their close collaboration and expert support for the DAQ and offline projects.

#### 3.2 ALICE Detector

J. Schukraft outlined the latest status of ALICE planning and schedule (slide 4). Given that the run at 900 GeV had been replaced by a run in mid 2008 at full energy, they had used the additional time to repair the pixel detector and to produce and to install further modules for the TOF (7 modules planned would become 17 or the complete number of 18), the TRD (5 modules instead of 2) and the PHOS (3 modules instead of 1). They were taking more time for the testing and pre-commissioning of individual systems and they would add more cosmic running for global commission and initial alignment.

The expected start-up configuration in mid 2008 had therefore changed:

- complete: ITS, TPC, TOF, HMPID, muon arm, PMD, trigger dets (V0, T0, ZDC, Acorde),
- partially complete: PHOS(3/5), TRD (5/18), DAQ/HLT (20-30%)

Beyond 2006 they planned to complete DAQ/HLT capacity in 2009 instead of 2008 in line with the expected LHC running, and they expected to complete the TRD in 2009, the PHOS in 2010 and the EMCAL in 2010/2011.

J. Schukraft then reported in detail on the status of the installation 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. He presented the expectations of the physics in slide 40.

### 3.3 Summary

J. Schukraft summarized his talk in two points. As major milestones achieved:

- the most delicate part of ALICE, namely the ITS, was installed in good health,
- Global Commissioning had started

The remaining Biggest Concerns were:

- Computing resources: a large deficit was projected for 2009 and beyond,
- LV power supply delivery schedule: these would arrive only in April 2008 or afterwards, and hence some of them would not be available for the cosmic run, and the ITS could not be aligned in this way.

### Discussion

J. Engelen thanked the spokesperson for this excellent overview of the very significant progress that had been made. He invited comments both in this presentation and on points raised in the paper on LHCC Deliberations from E. Tsesmelis below.

There being no comments, J. Engelen emphasized the enormously complicated and delicate operation that had been involved for getting the Inner Tracking System into the TPC. It had been very well prepared and carefully executed and he congratulated all those involved.

#### 4. LHCC Deliberations (paper only)

Paper CERN-RRB-2007-069

**LHCC Scientific Secretary, E. Tsesmelis**

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

#### 5. Financial matters

Paper CERN-RRB-2007-067

**B. Salami, CERN Finance Dept.**

Presentation CERN-RRB-2007-068

B. Salami presented a financial update on the situation as reported in his paper referenced above and covering the period from the end of August 2007.

##### 5.1 Status of Common Fund and C&I accounts

Slide 3 showed an updated table of the outstanding contributions for the Common Fund (Membership Fees and Cash) and Commissioning and Integration. The total outstanding was 975 kCHF of which the largest component was outstanding cash contributions (763 kCHF).

##### 5.2 Status of M&O accounts

Recent income for M&O-A from Greece, Italy, Korea and Poland amounted to 217 kCHF. Total outstanding contributions to M&O-A up to the end of 2006 amounted to 610 kCHF. In this, contributions were owed by non-Member States China, JINR Dubna, Mexico and Russia. All Member States had paid up to the end of 2006. The total still outstanding for 2007 was 647 kCHF.

## Discussion

J. Engelen thanked B. Salami for this presentation of the financial facts and asked whether there were any comments or questions.

D-O. Riska reported that the Finnish contribution to the cost to completion would be paid as soon as they received a bill for this. J. De Groot replied that the bill was on its way.

J. Królikowski reported that he had been told that the remaining M&O-A contribution from Warsaw Technical University was in the pipeline. J. Engelen thanked him for this.

There were no further comments and the RRB **took note** of the Financial Update.

## 6. Construction Budgets

Paper CERN-RRB-2007-061

## Resources Co-ordinator, J. De Groot

Presentation CERN-RRB-2007-062

### 6.1 ALICE CORE Construction Budgets

J. De Groot presented first an update of the 2007 budget by system and Funding Agency which amounted to 10.4 MCHF, implying substantial payments for several detectors. The actual expenditure would be reported at the April 2008 RRB.

J. De Groot then presented the proposed Draft Construction Budget for 2008 which had increased slightly to 8.3 MCHF since the preliminary budget presented in April 2007. The DAQ spending had been reduced by pushing the installation of the last slice of computers into 2009. This budget was presented to the RRB for approval.

The integrated CORE Expenditure for the years 1997 to 2008 was presented graphically in slide 7.

J. De Groot then moved to a table (slide 9) summarizing the state of the Common Fund. He acknowledged especially the exceptional contribution of 150 k€ by France/IN2P3 to the cost of the ZDC vacuum chamber. For the member states there were few outstanding amounts. For the non-member states there were more sums missing. He noted that the Russian contributions would be covered largely by in-kind contributions. The Common Fund profile and balance (slide 10) showed a negative balance from 2007 up to 2009. The current prediction for the end of the construction period was that the balance would be negative by about 500 kCHF. Slides 11 and 12 showed graphically the Common Fund spending profile by year, and similarly the income, expenditure and balance,

### 6.2 MoU Addenda

J. De Groot reported (slide 14) on a probable signature of the MoU by a group of Institutes supported through DoE. It was hoped to sign this in the next few days.

## Discussion

J. Engelen thanked J. De Groot for his presentation and asked whether there were any comment or questions. There being no comments the Draft Construction Budget for 2008 was **approved**,

## 7. M&O Budgets

Paper CERN-RRB-2007-063

## J. De Groot

Presentation CERN-RRB-2007-064

### 7.1 Update on 2007 M&O A Budget, Income and Expenditure

J. De Groot presented an update on 2007 M&O-A Budget, Income and Expenditure (slide 3). This was essentially a reminder of the budget approved in October 2006. Slide 4 showed the M&O-A income from 2002 to 2006. There were a number of outstanding amounts such as that for China

which was under discussion with their Chinese colleagues, In the case of Dubna this contribution would be compensated by in-kind manpower. The payment from Mexico was on its way. Russia had already paid a large amount of money this year towards this outstanding payment and he understood that significantly more would be paid before the end of this year. The amount for the DoE had not been invoiced since they had not yet signed the MoU. In the case of Ukraine further discussions about in-kind manpower were still necessary. For 2007 there was more money still outstanding (slide 5). He reminded members of the procedure agreed within the ALICE Collaboration of how to handle late payments (slide 6) and they were using this in discussions with the Funding Agencies.

ALICE had budgeted 1.233 MCHF for electrical power, of which 297 kCHF was invoiced to NMS. In practice with the change of LHC schedule only a fraction of the electrical power planned would actually be used during 2007. For the related budget item of shutdown activities, they had budgeted 260 kCHF. There would be no winter shutdown in the normal sense for 2007 - 2008, although a commissioning run would take place in December 2007. He suspected that they would probably not need all of this money.

## **7.2 Draft 2008 budget & estimates 2009 - 2011**

J. De Groot showed the evolution of the M&O-A budget for the years 2007 to 2011 (slide 9). This showed the contributions of power, consumables, and operations. In the steady state around 2011 these three components were about equal. They had a new installation scenario for DAQ/HLT computers which reduced the M&O cost for 2010. Otherwise the budget estimates had not varied much from previous predictions. He wished to emphasize that next year would be an important 'learning year' as the first year essentially without construction funds. Slide 10 showed the breakdown of the M&O-A into the components as defined in the MoU for the years 2002 to 2011.

## **7.3 M&O A sharing**

J. De Groot showed on slide 14 the sharing of the 2008 M&O-A budget by Funding Agency according to the rules of the Collaboration, which totalled 5.25 MCHF. These sums would be invoiced in January 2008.

Slide 15 showed the evolution of the M&O-B budget for the years 2008 to 2011, and the sharing by Funding Agency for 2008.

## **7.4 M&O MoU signatures**

Finally J. de Groot showed the list of signatures on the MoU for M&O. Signatures were outstanding from Greece and China. He understood that this was currently underway in Greece.

## **Discussion**

J. Engelen thanked J. De Groot for his clear presentation and asked the RRB if there were any questions. There were no comments and the Chairman of the Scrutiny Group was asked to make his report on the draft M&O budget for 2008.

## **7.5 M&O Scrutiny Group Report**

Paper CERN-RRB-2007-112

## **G. Lafferty. Scrutiny Group Chair**

G. Lafferty, chairman of the M&O Scrutiny Group, presented some remarks specific to the ALICE experiment, having already presented the general part of his report during the RRB Plenary Session. The Scrutiny Group held three meetings over the summer with J. De Groot and C. Decosse. The power costs for ALICE were significantly higher as a fraction of the total than for the other experiments, reflecting the fact that this was a conventional magnet. Service agreements were rising significantly for all experiments and would remain a topic for the Scrutiny Group for future years. Currently they were satisfied with these costs. A specific item for personnel was

agreed to necessary to cover a particular person whose contract was coming to an end before the replacement was coming to an end, The Scrutiny Group expected this cost to come back out of the M&O next year, when the replacement should be covered by the CERN group.

The build up of the on-line system had been delayed because of the new machine schedule, which gave significant cost reductions over the next couple of years, but implied a sharp rise between 2010 and 2011 in the M&O requirements, and the Scrutiny Group would be looking at this in future. ALICE had refurbished some barracks at Pit 2 in order to satisfy the need for conference rooms and the Scrutiny Group had agreed to this as reasonable spending.

The Scrutiny Group recommended the approval of the ALICE 2008 M&O Budget.

### **Discussion**

J. Engelen thanked G. Lafferty for report and for the work of the Scrutiny Group. He asked for any comments or questions. There being none the ALICE M&O Budget for 2008 was **approved**,

### **8. Composition of the Scrutiny Group in 2008 J. Engelen**

J. Engelen returned to the issue raised in the Plenary Session by G. Lafferty, namely that of replacing some members of the Scrutiny Group whose term of appointment was at an end. J. Engelen was looking for a replacement for the scientific secretary. He was also still looking for a delegate to represent the smaller member states. The USA had already started the process of selecting a candidate to replace the USA member and would provide the name shortly. There was also a member need to represent France or perhaps a large member state.

G. Lafferty emphasized the importance of finding members who would perform this work seriously and willingly. J. Engelen would communicate with members of the RRB via email whilst they were establishing the new composition.

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

J. Engelen concluded that there had been significant progress in the ALICE project since previous RRB. The financial situation had improved since the previous meeting and the backlog in payments was being addressed in a sensible manner.

The next RRB meetings in 2008 are provisionally scheduled to take place at CERN on  
**Monday 14<sup>th</sup>, Tuesday 15<sup>th</sup> and Wednesday 16<sup>th</sup> April 2008**  
and on  
**Monday 10<sup>th</sup>, Tuesday 11<sup>th</sup> and Wednesday 12<sup>th</sup> November 2008**

There being no questions and no further business, the Chairman thanked the participants and closed the meeting.

C. Jones  
November 2007