



TOTEM

3rd March 2009

**Minutes of the 3rd LHC Resource Review Board Meeting
(CERN, Geneva, 11th November 2008)**

Present:

J. Niederle (Inst. Of Physics AS CR, Prague, Czech Republic)
D.O. Riska (Helsinki Institute of Physics, Helsinki)
T. Csörgő (MTA KFKI-RMKI, Hungary)
F. Ferroni (INFN, Italy)
S. Lami (INFN Pisa, Italy)
K. Eggert (Penn State University, USA) – TOTEM spokesperson
M. Pripstein (NSF, USA)

G. Lafferty (University of Manchester, Scrutiny Group Chair)
C. Diaconu (CPM/DESY, Scrutiny Group)

CERN

J.-J. Blaising, J. Engelen (chairman), D. Jacobs, T. Lagrange, R. McLaren (secretary), J. Salicio Diez, S. Schmeling, E. Tsesmelis, E. Van Hove

TOTEM

S. Giani, E. Radermacher

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. Welcome. J. Engelen, Chief Scientific Officer.

J. Engelen welcomed delegates to the 3rd meeting of the TOTEM RRB. He introduced T. Lagrange who replaced P. Geeraert as head of CERN's Finance department.

2. Approval of the minutes of the last meeting. J. Engelen, Chief Scientific Officer.

CERN-RRB-2008- 062 (report)

The minutes of the last RRB were approved without comment.

3. Status of the experiment. K. Eggert, Spokesperson.

CERN-RRB-2008-107 (report), CERN-RRB-2008-108 (presentation)

K. Eggert welcomed T. Csörgő, KFKI-RMKI, Hungary to the meeting and announced that S. Lami was the newly elected deputy Spokesperson.

He presented the status and detailed timescales, as requested in the April RRB, of the T1 and T2 detectors and the Roman Pots. He also showed the production schedule of the electronics cards.

Turning from hardware to software, K. Eggert presented the plan for offline software and gave the schedule for 2009. He then gave examples of a number of trigger scenarios. K. Eggert then summarised by stating that:

TOTEM was ready for complete installation in spring/summer 2009
Commissioning had already started and will continue
Analysis software would be finalized in spring 2009
First standard runs will be used for:
 Calibrations and alignments
 Background studies
 Trigger studies
Physics programme for standard runs:
 Large t elastic scattering
 Double Pomeron and single diffraction
 Minimum bias physics
Specialized 90 m runs:
 Total cross-section and low t elastic scattering
 Diffraction with proton measurements

He concluded by presenting the financial matrix, noting that there was still unforeseen post MoU costs which were related to infrastructure and interfacing to the machine (interlock system, radiation monitors and cooling).

M. Pripstein observed that cooling problems had been reported in several experiments and enquired as to whether this was a general infrastructure problem at CERN. J. Engelen replied that these problems were detector specific. J-J. Blaising explained that some of the problems were due to modifications to the original designs. The detector teams were working closely with TS Department and a Cooling Forum had taken place and all the experiments had been invited to analyse the problems. Work had started on a consolidation programme to address the issues in a coherent approach.

M. Pripstein asked whether the detectors were at risk from high background radiation. K. Eggert responded that the Roman Pots at 147m were the most venerable and they would be carefully monitored. T2, which is rad-hard technology, should not be a major problem. Experience would show the resistance to radiation of T1. Roman Pots at 220m will be subjected to less background.

4. LHCC deliberations (paper only). E. Tsesmelis, LHCC Scientific Secretary
CERN-RRB-2008-109 (report)

Delegates had no comments and the RRB took note of the report of E. Tsesmelis.

5. Financial matters. T. Lagrange, Head, CERN Finance Dept.
CERN-RRB-2008-068 (paper)

T. Lagrange reported on changes since the Financial Report on the 30 September 2008.

On the construction accounts, there is still an outstanding amount of 14 kCHF.

Concerning M&O-A an additional amount of 160 kCHF has been received, as a result the outstanding invoices remain at a level of 17kCHF.

6. Status of Resources and Financial Plan. S. Giani, Resources Co-ordinator.
CERN-RRB-2008-110 (report), CERN-RRB-2008-112 (report)
CERN-RRB-2008-111 (presentation), CERN-RRB-2008-113 (presentation M&O)

a. Financial status of TOTEM.

S. Giani presented the financial matrix and highlighted the main changes since the April RRB. An important difference is the contribution of 80 kCHF from Hungary, which has been allocated and paid. There had been progress regarding the US contribution; in the next round of requests to NSF, the 63 kCHF are the first priority and 50 kCHF are already allocated.

The Common fund has been completed and all the payments made. S. Giani thanked the CERN Finance Department for their help in defining a new accounting structure.

Looking at the M&O A contributions, CERN, INFN, Finland, Estonia and Prague have paid 100%; the US is at 70% of the foreseen amount. S. Giani thanked Hungary for an exceptional contribution of 10 kCHF. The balance is now - 7 KCHF.

For M&O B, S. Giani stated that CERN, INFN, Finland and USA contributions were complete, Estonia and Prague had made an a significant extra payment. There was a balance of +57 kCHF.

b. M&O Budget request for 2009.

S. Giani thanked the Scrutiny Group for their help defining the budget. He showed a breakdown of the requests by subproject and went on to detail the differences with the 2008 request.

He then showed a breakdown by funding agency, reminding delegates of the algorithm for calculating contributions.

c. M&O Scrutiny Group Report. G. Lafferty, SG Chairperson.

G. Lafferty reported that the SG had checked that the amounts in each of the categories matched the sum requested.

The SG noted that computing costs in the 2009 budget were less than anticipated last year. However, M&O A costs have increased because of cooling and radiation safety items, the latter associated with proximity to CMS. However, the overall budget had remained approximately as requested for 2008.

To conclude G. Lafferty reported that M&O Category A and B had been scrutinized and recommended the figures for approval by the RRB.

J. Engelen concluded that TOTEM has faced cost overruns estimated at 460 kCHF. Other LHC experiments have funds to allow them to go from the initial to the final detector, perhaps the required funding could be found from the same source? However, this requires a decision for the Directorate.

J. Engelen did not accept that this was CERN's problem but he would make an effort to resolve this issue before the end of 2008. If this was unsuccessful, the problem will return to the RRB and the delegates would be presented with full details to allow delegates to decide if they could accept part of the bill.

D.O. Riska thanked J. Engelen for his constructive efforts and looked forward to a report in the April 2009 RRB.

J. Engelen thanked the Scrutiny Group for their comprehensive report and, there being no comments from the delegates, stated that the M&O budget for 2009 was approved.

7. M&O Scrutiny Group in 2009. J. Engelen, Chief Scientific Officer.

As announced in the plenary session, there will be changes to the Scrutiny Group. G. Lafferty, J. Mnich and J. Kirkby will be leaving the group, requiring new delegates from the UK, Germany and CERN, and a new Chairperson will be appointed. M. Turala will join the Scrutiny Group and J. Engelen proposed B. Loehr as a candidate. The RRB delegates will receive further information.

8. Summary. J. Engelen, Chief Scientific Officer.

J. Engelen noted that TOTEM had made good progress and is ready to take data. With experience, construction funds and M&O are becoming better understood. There is a remaining problem concerning the 460 kCHF which will be discussed with CERN.

F. Ferroni on behalf of the experiment, expressed his thanks for all the work that J. Engelen had done for TOTEM and wished him all the best for the future.

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