



TOTEM

16th September 2009

**Minutes of the 4th LHC Resource Review Board Meeting
(CERN, Geneva, 28 April 2009)**

Present:

J. Niederle (Institute of Physics AS CR, Czech Republic)
D. Riska (Helsinki Institute of Physics, Finland)
B. Loehr (DESY, Germany)
T. Csorgo (MTA KFKI RMKI, Hungary)
F. Ferroni (INFN, Italy)
U. Marconi (INFN, Italy)
G. Tonelli (INFN, Italy)
M. Pripstein (NSF, United States of America)

CERN:

S. Bertolucci (chairman), P. Bloch, J. De Groot, S. Giani, R. Heuer, D. Jacobs, T. Lagrange, R. McLaren (secretary), E. Radermacher, J. Salicio Diez, S. Schmeling, E. Tsesmelis, E. Van Hove.

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

S. Bertolucci welcomed delegates to the 4th meeting of the TOTEM LHC Resource Review Board.

2. Approval of the minutes of the last meeting. S. Bertolucci, Director of Research and Scientific Computing.

The minutes of the last RRB CERN-RRB-2009-005 were approved with minor comments.

3. Status of the TOTEM experiment. E. Radermacher, Technical Coordinator
CERN-RRB-2009-058 (report), CERN-RRB-2009-059 (presentation)

E. Radermacher's presentation focussed on eight main areas:

- The Roman Pots
- The T1 Telescope
- The T2 Telescope
- Electronics

- DAQ
- Software
- Early Physics
- Summary

He concluded that:

- The Roman Pot detectors are now installed in sector (5,6), the sector (4,5) will be equipped before the end of June.
- A few Roman Pot detectors will be mounted at 147 m to gain experience with the first beams (background!).
- Three quarters of the T2 Telescope are installed, the last one follows latest end of May.
- For T1 a pre-mounting of the new support structure is foreseen beginning of June if the CMS schedule allows it.
- Installation of T1 can only be done in September.
- For the Roman Pots and T2 the commissioning can start now.

M. Pripstein (NSF, USA) enquired how closely TOTEM was linked with CMS and if they were vulnerable to problems occurring in CMS. E. Radermacher replied that CMS and TOTEM were collaborating closely on the T1 installation with regular twice-weekly meetings to ensure coordination. T2 should not be a problem as it is behind the forward calorimeter.

M. Pripstein (NSF, USA) asked what the impact would be on the physics if there were difficulties in getting T1 installed. E. Radermacher replied that there would be an impact on the acceptance and a loss of events; the exact figures are in the Technical Design Report. He went on to explain that the welding of the fixation blocks in the iron yoke requires the CMS wheels to be open.

D.O. Riska (Helsinki Institute of Physics, Helsinki) asked if there was sufficient manpower for the planned work. E. Radermacher responded affirmatively and stated that he was very grateful for the extra help, including effort from Finland, which had kept production and installation on track.

4. LHCC Deliberations (paper only). E. Tsismelis, LHCC Scientific Secretary.
CERN-RRB-2009-060

E. Tsismelis reported that the presentation was in line with the LHCC report. There has been progress but the production of the readout electronics for the T1 telescope is critical. There will be a dedicated mini-review of TOTEM next week.

5. Financial matters. T. Lagrange, Head, CERN Finance Dept.
CERN-RRB-2009-061 (report)

T. Lagrange presented the changes with respect to the report on the 28th February. He reported that CERN had paid 94 kCHF but there were no other contributions.

There were no questions or comments arising from this presentation.

6. Construction and M&O Budgets. S. Giani, Resource Coordinator.

CERN-RRB-2009-063(report), CERN-RRB-2009-064 (presentation)

M&O Balance 2008 Cat-A

S. Giani reported that 2008 was the first year of Maintenance & Operation funding for TOTEM (which was entered into the RRB M&O standard loop at the end of 2007). He showed a breakdown of Cat-A by funding agencies in which there was an unexpected contribution from Hungary. He continued with expenditures noting that balance, closed at 28 Feb 2009, was ~75kCHF. This is due to the fact that the invoicing to the FAs was approved after the RRB Spring meeting and consequently the spending of the money could start only in the second half of 2008.

A similar exercise for Cat-B revealed that there had been overspending in some areas. S. Giani expressed his thanks to the Czech Republic for an extra contribution which led to a positive balance of 12 kCHF.

M&O Status 2009 M&O

S. Giani gave a breakdown of Cat-A by Funding Agency and noted that they have been invoiced to and were, in most cases, already fully allocated. CERN's contribution had been received. He also gave details of Cat-B.

Budget Request 2010

The preliminary M&O Cat-A budget request is 426 kCHF and Cat-B is 247 kCHF.

S. Giani made the following comments concerning the construction budget:

- The construction budget does not show variations with respect to the situation presented to the RRB in November 2008.
- The construction Common Fund expenditures were completed in 2008 and the relative account was balanced: now it will be closed as agreed by FI department.
- The commitments to complete the construction "project" expenditures are being paid via the Transit account, according to the projections and figures shown at the RRB November '08 meeting.
- TOTEM was grateful to the Czech Republic funding agency for the additional contribution received for the Roman Pots construction and electronics.
- TOTEM is looking forward to finalizing with CERN the income related to the memoranda dated 10 November 2008, which were discussed since the previous RRB meeting: the availability of the corresponding money plays a crucial role vis-a-vis of the cost-to-completion of the project.
- TOTEM also looks forward to presenting to the RRB in autumn the final financial figures upon completion of the experiment construction, which still includes some final commitments of the TOTEM collaborators.

D.O. Riska (Helsinki Institute of Physics, Helsinki) informed the RRB that one engineer from GEM detector technology development had left and that this would result in a change of the number of listed FTEs.

D.O. Riska (Helsinki Institute of Physics, Helsinki) also commented that the invoice for M&O Cat-A had been paid by Finland but this was not reflected in the presentation; probably due to small delays on the CERN side.

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

S. Bertolucci summarised that TOTEM is progressing well. There are critical items, which are under control. Continuing good collaboration with CMS should allow TOTEM to be ready for beam. Even in the worst case scenario, TOTEM would be there with enough detectors to do good physics.

The finances are in order; this includes a special contribution from CERN which is being processed.