

**Minutes of the 33rd Plenary Meeting of the LHC Resource Review Boards (RRB)
(CERN, Geneva, 17th October 2011)**

1. Welcome. S. Bertolucci, Director for Research and Scientific Computing

S. Bertolucci welcomed delegates to the 33rd Plenary meeting of the RRB.
The minutes of the April Plenary Session CERN-RRB-2011-060 were approved.

2. CERN Status and News. S. Bertolucci, Director for Research and Scientific Computing

S. Bertolucci, reporting on behalf of R. Heuer, stated that the machine was running extremely well. The experiments have recently achieved 5 fb⁻¹ and there is still room for improvement. The experiments are operating smoothly and the WLCG is working perfectly. Resource planning has been very accurate.

CERN is now engaged in the upgrade of the European Strategy for Particle Physics. An ICFA seminar took place between the 3-6 October 2011 at CERN. This was a first step to harmonize the global Particle Physics Strategy.

CERN is opening the door for Membership for all countries independent of geographical location. The last session of Council approved the roadmap for the fast accession by Israel. Good progress has been made in negotiations with Cyprus, Serbia, Slovenia and Turkey.

The first collaboration meeting of ELENA, the Antiproton Decelerator has taken place.

CERN is also active in other disciplines promoting ICTR-PHE which is a large congress uniting physics, biology and medicine. This will take place in February 2012 and there are already over 500 registrations.

S. Bertolucci concluded by stating that CERN and the experiments are very aware of the difficult economical and financial situation in Member States. Considerable efforts have been made to maintain a constant budget which allows scientific enterprise to continue albeit with slight delays.

There were no comments or questions on this presentation.

3. LHC Status Report. S. Myers, LHC Operations

S. Myers gave an in depth presentation of the LHC operation on behalf of the LHC team and international collaborators. He divided the presentation into six periods:

- Status ~ 1 year ago
- Performance last quarter of 2010
- LHC progress first half 2011
- Second half 2011

- Since the Technical Stop
- News from Last Few Days

He concluded by summarising:

- Beam Intensity, peak and Integrated luminosity are still going up very (quite) rapidly
- Successfully implemented: luminosity levelling for LHCb and luminosity calibration (vdM scans)
- Our 2011 target integrated luminosity was reached with ~16 weeks still to go and will certainly produce much more than 5 fb^{-1}
- Progress from here on will be slower since we have already “played most of our performance cards”
- We must remain extremely vigilant with protection of the machine (100MJ of stored energy) and hope that there are no more old unexploded bombs in the hardware!!

M. Turala asked whether the dates of the 2013/2014 shutdown were confirmed. S. Bertolucci replied positively adding that by the end of 2012, the physics goals should have been reached.

S. Myers explained that during the shutdown there were over 10'000 interconnects which would be changed and new pressure release valves to install. If all went well, the shutdown would be in the order of 18 months and the injectors would start again in Spring 2014.

4. M&O Scrutiny Group (SG) Report. B. Loehr, Chairman
CERN-RRB-2011-076 (report), slides can be viewed via the LHC-RRB home page

B. Loehr reminded the delegates of the composition of the Scrutiny Group in 2011 and thanked the members and the Resource Coordinators for their hard work. At the end of 2011, all present members, except Enrico Iacopini, will have served for at least three years and may no longer be available for the Scrutiny Group in 2012.

He continued with some introductory remarks before moving on to the scrutiny of each experiment. These included comments on the:

- New operations plan for LHC
- Performance of LHC and the experiments
- New (interim) agreement on online -hardware replacement policy
- “Special accounts” for online-hardware replacement funds
- Request for flat budgets
- M&O B scrutiny process

For each experiment he reported on the closing report, the request for 2012 M&O A, M&O B and projections to 2015, highlighting the main cost items and major points of discussion.

In summary, the Scrutiny Group made the following recommendations:

ALICE:

The Scrutiny Group recommends approval of the ALICE M&O A closing report for 2010 and the budget request for M&O A and M&O B 2012.

The Scrutiny Group recommends approval of the ALICE M&O B budget for 2012

ATLAS:

The Scrutiny Group recommends approval of the ATLAS M&O A closing report 2010 and of the budget for 2012. It expects a revision of the online hardware replacement plan in 2012.

The SG recommends approval of the M&O B closing report for 2010 and approval of the M&O B budget request for 2012.

CMS:

The SG recommends approval of the M&O A closing report for 2010 and approval of the M&O A budget request for 2012.

The SG recommends approval of the CMS M&O B budget request for 2012.

LHCb:

The SG recommends the approval of the LHCb closing report for 2010 and the M&O A budget request for 2012.

The SG recommends the approval of the LHCb M&O B budget request for 2012.

TOTEM:

The SG recommends the approval of the TOTEM closing report for 2010 and the M&O A budget request for 2012.

The SG recommends approval of the TOTEM M&O B budget request for 2012.

B. Loehr concluded with some acknowledgements:

This year's scrutiny process required more than usual efforts from the LHC experiments because of:

- the change of the LHC running plan
- the request of the RRBs for "smooth" budgets
- the request of the Scrutiny Group for a revision of the online-hardware replacement plan
- the request to perform M&O B scrutiny processes for all experiments

The Scrutiny Group wanted to thank all Resource Coordinators and Managers of the experiments for their efforts and for the high quality information which was provided (127 documents). The Scrutiny Group is especially grateful for the cooperation of the M&O B subsystem project managers and subsystem resource managers who had to undergo this process for the first time.

Almost all of the present Scrutiny Group members have served for at least three years and might not be available any more next year. B. Loehr thanked his colleagues for their invaluable contributions to the scrutiny processes of the last three years.

T. Medland thanked the Scrutiny Group for their clear and concise report and for the very constructive approach to general issues. He was concerned about the transition from the present Scrutiny Group to a new team. S. Bertolucci appealed for proposals from the Funding Agencies; he indicated that the USA might be able to contribute manpower to the Scrutiny Group.

E. Augé felt it was important to continue with Scrutiny of M&O B. B. Loehr reminded the delegates that there were already two Scrutiny processes, one internal to the collaboration and one national. Adding an extra review placed an additional burden on the experiments; also it was very difficult to compare the experiments. He was not enthusiastic about RRB Scrutiny of M&O B. S. Bertolucci agreed that experiments were very different in their approach to Scrutiny but felt, if additional resources were found, that the Scrutiny of M&O B should continue for one more exercise and then the process could be reviewed.

F. Cervelli understood the complexity of Scrutiny of M&O B but emphasised that the Funding Agencies needed to know the total cost, and the sharing of the cost, for each experiment.

K. Ehret was strongly in favour of continuing close Scrutiny of M&O B costs, he felt that this new process would become easier with experience. He would appreciate seeing comparable numbers for the different experiments. B. Loehr argued that this would only be possible if the M&O B funds were collected and administered at CERN (as happened for ATLAS). B. Loehr and S. Bertolucci were neutral on this idea.

5. Summary. S. Bertolucci. Director for Research and Scientific Computing

S. Bertolucci thanked the Scrutiny Group. He praised the experiments for their efforts to reduce and smooth their budgets. He was of the opinion that the special account for CPUs and Online was beneficial.

There being no further business, the chairman closed the meeting. The proposed dates for the next RRB are 23rd – 25th April 2012