

**Minutes of the 36<sup>th</sup> Plenary Meeting of the LHC Resource Review Boards (RRB)  
(CERN, Geneva, 15<sup>th</sup> April 2013)**

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

S. Bertolucci welcomed delegates to the Plenary meeting of the RRB.

*The minutes of the last Plenary Session CERN-RRB-2013-007 were approved.*

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

S. Bertolucci stated that the last, very successful, run had finished in February with many last minute requests. Important tests were also performed to ensure a smooth restart.

The long shutdown period has begun. Experiments have entered a phase of maintenance, consolidation and upgrade. Analysis of the data is in full swing and important results are being published.

In collaboration with the accelerator, it was decided to restart at 25ns spacing; the initial energy is being discussed.

One third of the dipoles have lost their “training memory”. They can be re-trained but since the magnets are mounted in strings, quenching of good and bad magnets is inevitable. Quenching stresses the magnets and takes time.

The computing model is showing signs of age. There is a need for an order of magnitude increase in computing resources. There is hope that advances in technology, for example multicore processors, will provide a gain of 2 or 3. This need also comes during a period when the EU Framework 7 programme is reaching its conclusion and the new programme, Horizon 2020, has not yet started.

The new Chairmen of the M&O Scrutiny Group and the Computing Resources Scrutiny Group are C. Touramanis and J. Flynn respectively. The CORE group, whose mandate is to review the cost of the Upgrades and standardise reporting, has been reinstated. There are good connections between the CORE Group, the Scrutiny Group and the LHCC.

*T. Medland asked for details of the planning and approval process for the Upgrade. S. Bertolucci replied that the experiments will produce a Letter of Intent, then a Technical Design Report. Both will be reviewed scientifically and technically by the LHCC and a sub-group will review costs (CORE). T. Medland commented on the complexity of multiple TDRs with different Funding Agencies involved in each and asked how the global plan would be coordinated. S. Bertolucci responded that the framework for Phase 1 has already been presented and the details will be included in the TDRs. The experiments are in the process of completing a table with sub-projects and institutes that have expressed interest in participating in the Upgrades.*

**3. LHC Status Report.** S. Myers, Director for Accelerators and Technology, for the LHC team.

Slides of this presentation are on the RRB agenda page.

S. Myers gave an in depth presentation of the current status of the LHC covering:

- Performance in 2012 and in the last 3 years
- End of Run tests
  - High Injector Brightness
  - End of year tests @ 25ns
  - Electron cloud and scrubbing
  - Quench tests

- Collimation test
- UFOs
- Magnet quench test
- HOM heating
- Physics requests for the end of the run
- LHC new features
- Run Overview

He summarised the Summary LHC p-Pb run by stating:

- A new mode of operation, unforeseen in the baseline design of the LHC, was commissioned in 10 days (including >4 days down time).
- The physics requirements were fulfilled in both configurations p-Pb and Pb-p in three weeks of physics,
- ALICE, ATLAS, CMS, LHCb, ALFA, TOTEM, LHCf all took data.
- Fills were routinely dumped by the BPMS false reading
- The run gave important data to prepare future high luminosity Pb-Pb and p-Pb runs.

**4. Summary.** S. Bertolucci. Director for Research and Scientific Computing

*There being no further business, S. Bertolucci thanked the delegates and closed the meeting. The proposed dates for the next RRB are 28-30th October 2013.*