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## ATLAS

6 May 2014

### Minutes of the 38<sup>th</sup> LHC Resource Review Board Meeting (CERN, Geneva, 29<sup>th</sup> April 2014)

#### **Present:**

G. Taylor (University of Melbourne, Australia)

A.K. Maciel (RENAFAE, Brazil)

- D. Wayner, M. Vincter (National Research Council, NSERC, Ottawa, Canada)
- M. Vincter (Carleton University, Canada)
- Y. Zhang. S. Zhang (National Natural Science Foundation of China)
- N. Fejksová (Ministry of Education, Youth and Sports, Prague, Czech Republic)
- A. Kupčo (Institute of Physics, ASCR, Czech Republic)

P. Hansen (Niels Bohr Institute, Denmark)

- U. Bassler, I. Wingerter (CNRS/IN2P3, France)
- A.-I. Etienvre, D. Vilanova, C. Guyot (CEA/IRFU, France)
- R. Feldmann (Federal Ministry of Education and Research, BMBF, Germany)
- H. Mahlke, M. Groll (BMBF/PT-DESY, Germany)
- M. Fleischer (DESY, Germany)
- S. Bethke (MPI, Germany)
- K. Jakobs (Albert-Ludwigs-Universitaet Freiburg, Germany)
- K. Fountas (University of Ioannina, Greece)
- E. Gazis (National Technical University, Athens, Greece)
- E. Rabinovici (Hebrew University, Jerusalem, Israel)
- G. Mikenberg (Wiezmann Institute, Rehovot, Israel)
- A. Zoccoli, F. Bedeschi (INFN, Italy)
- A. Di Ciaccio (University of Roma Tor Vergata, Italy)
- K. Tokushuku (KEK, Japan)
- F. Linde (NIKHEF, Amsterdam, Netherlands)
- B. Jacobsen (The Research Council of Norway, Oslo, Norway)
- F. Ould-Saada (University of Oslo, Norway)
- G. Barreira (LIP, Portugal)
- F.D. Buzatu (Institute of Atomic Physics, Bucharest, Romania)
- C. Alexa ((IFIN-HH National Institute of Physics and Nuclear Engineering, Bucharest, Romania)
- S. Salikhov (Ministry of Education and Science, Russia)
- V. Savrin (Institute of Nuclear Physics, Moscow State University, Russia)
- V. Shevchenko (National Research Centre, Kurchatov Institute, Russia)
- Z. Hlavacikova (Ministry of Education, Science, Research and Sports, Bratislava, Slovak Republic)
- D. Bruncko (Insitute of Experimental Physics SAS, Slovak Republic)
- M. Mikuz (University of Ljubljana & Jozef Stefan Institute, Ljubljana, Slovenia)
- D. Adams (Department of Science and Technology, Pretoria, South Africa)
- V. Spannenberg (iThemba Labs, South Africa)
- F. del Aguila (Ministry Economy and Competitiveness U. Granada, Spain)
- E. Higón-Rodriguez (IFIC, University of Valencia, Spain)
- P. Karlsson (Swedish Research Council, Stockholm, Sweden)
- P. Vonlanthen (Swiss National Science Foundation, Switzerland)
- S.-C. Lee (Academia Sinica, Taipei, Taiwan)
- G. Blair, A. Medland (STFC, United Kingdom)
- D. Tovey (University of Sheffield, United Kingdom)
- S. Rolli, J. Stone (Department of Energy, United States of America)
- J. Cochran (Iowa State University, United States of America)
- S. Rajagopalan (Brookhaven National Laboratory, Upton, NY, United States of America)

ATLAS: D. Charlton, F. Dittus, B. Di Girolamo, H. Gordon, B. Heinemann, R. Mount, T. Wengler CERN: S. Bertolucci, C. Decosse, T. Lagrange, L. Mapelli, J. Salicio-Diez, E. Tsesmelis, E. van Herwijnen (Scientific Secretary), E. van Hove

Resources Scrutiny Group: C. Touramanis

Excused: S. Gonzalez (National Science Foundation (NSF), United States of America), J. Królikowski (University of Warsaw, Poland), R. Heuer (CERN), S. Lettow (CERN),

Documents can be found in the RRB Indico pages; accessible via the LHC-RRB home page <a href="http://committees.web.cern.ch/committees/all/welcomeLHCRRB.html">http://committees.web.cern.ch/committees/all/welcomeLHCRRB.html</a>

**1. Introduction.** S. Bertolucci, Director of Research and Scientific Computing.

S. Bertolucci welcomed delegates to the meeting of the ATLAS LHC Resource Review Board.

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

CERN-RRB-2013-130 The minutes of the last meeting were approved without comment.

# **3. Status of the experiment.** D. Charlton, Spokesperson. CERN-RRB-2014-014, CERN-RRB-2014-015 (slides)

In summary:

- Big progress across many fronts during this shutdown
- Shutdown programme at point-1 very far advanced
- Programme of detailed performance studies ~complete, Run-1 physics results using this improved understanding are flowing
- Many Run-1 analyses are submitted for publication or being finalised
  - Many searches with full data set complete or close to complete
  - Continuing strides in the H sector, e.g. >4 $\sigma$  evidence for  $H \rightarrow \tau\tau$  decays
  - First evidence of vector-boson scattering points the way to the long-term LHC programme to investigate EW symmetry breaking
- Groundwork for Run-2 analysis is laid offline, but a big effort is needed in 2014
  - New data format, analysis tools, data management and simulation frameworks are in place and being shaken down
  - DC14 programme will exercise and bring "user analyses" to readiness during this year
- Upgrades making big strides

ATLAS thanks the Funding Agencies for their support over the last >20 years which has been fundamental to the success of the experiment, and will continue to be so in future.

There were no questions arising from this presentation.

**4. Detector consolidation and upgrade.** B. Di Girolamo, Technical Coordinator. CERN-RRB-2014-016 (slides)

In summary:

Consolidation in LS1

• Many achievements in LS1

- Some activities completed, progress of others, a few to be still finalized in the planning
- ATLAS is profiting from the solid LHC schedule
- ATLAS will be ready on Nov. 20<sup>th</sup>, beam in January, Physics in April 2015

### Upgrades

- ATLAS are heading to construction for Phase 1
- ATLAS are in R&D phase prior to the preparation of the TDRs

There were no questions arising from this presentation.

### **5. LHCC deliberations** (paper only). E. Tsesmelis, LHCC Scientific Secretary

CERN-RRB-2014-017

The LHCC report gives information on the physics, the LS1 activities and also the ATLAS upgrades, including the recommendations on the new Small Wheel and the Fast Tracker TDR reports from the Upgrade Cost Group, and also the final recommendation on the Liquid Argon Trigger TDR and the Trigger/DAQ TDR. All were recommended and with those the LHCC deliberation on the four main Phase 1 TDRs of ATLAS is now complete and they have been submitted to the Research Board which has subsequently approved them. In summary, the LHCC considers that ATLAS has made excellent progress in all aspects of the experiment and the committee congratulates the collaboration on all its achievements.

There were no questions arising from this presentation.

**6. Financial matters.** T. Lagrange, Head of CERN Finance and Procurement Department CERN-RRB-2014-018, CERN-RRB-2014-019 (slides)

Compared to the distributed report an additional amount of 2.7M CHF was received. Still outstanding from member states before 2014 + 4.162M CHF in 2014 (=4.646 M CHF in total); for non-member states before 2014 + 4.819M CHF in 2014 (=5.247 M CHF in total) which means that 65% of the 2014 contributions have already been received.

**7. Budgets** F. Dittus, Resources Coordinator. CERN-RRB-2014-023 (slides)

In summary, the RRB was asked to approve the:

- final 2013 FDL payments
- final 2013 M&O payments
- final 2013 Phase-I Upgrade payments

and to take note of the:

- updated FDL 2014 budget
- preliminary 2015 M&O budget
- Phase-I cost sharing
- expected 2014 Phase-I investments

C. Touramanis thanked F. Dittus for his detailed presentation and remarked that the 2013 book closing will come back for final approval after the Scrutiny Group has done their work. F. Dittus agreed that the figures were not yet scrutinized.

*M.* Fleischer reminded that two or three years ago when a discussion took place on how to smoothen the budget lines it was agreed that there should be an overview table containing the deficit or the credit at each time. This should be given to the RRB at a future meeting. F. Dittus replied that this information is in the table that is shared with the Scrutiny Group in the plan. One could make that plot in two versions, one which shows the reality up to the point where we are and one which shows the plan. S. Bertolucci added that this could be part of the report of the Scrutiny Group. C. Touramanis added that in the Scrutiny Group report from last October, there is a presentation of how

the account is going to look through the years, so the information is there but you have to do some subtractions. He agreed to put the numbers themselves in the next report.

8. Summary. S. Bertolucci, Director of 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 13-15 October 2014.