

CERN-RRB-2010-118

ATLAS Resources Review Board, October 11, 2010





For RRB information (2010 FDL Status)
For RRB approval (2011 TDAQ Budget)

ATLAS Full Design Luminosity Detector Activities Status Report 2010 - 2011

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to take note of the status report for the 2010 – 2011 Full Design Luminosity activities and approve the 2011 TDAQ budget.

The initial ATLAS construction period finished by the end of 2008. The initial detector configuration was determined in 2002, following an updated financial plan endorsed by the RRB at that time. As described in the Cost to Completion (CtC) plan (CERN-RRB-2002-114 rev.), original CORE items worth some 30 MCHF were staged to liberate financing to bridge the gap between cost to completion (CtC) and available firm financial pledges. It was understood that once the CtC budget of 72.6 MCHF was fully pledged, the deferred funds would be returned to complete the Full Design Luminosity (FDL) detector, as defined in the Technical Proposal (CERN/LHCC/94-43).

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<i>FDL TDAQ BUDGET</i>	
<i>REPORT ELEMENTS</i>	
 Initial TDAQ scope	
 TDAQ 2010 status	
 De-staging	
 TDAQ 2011 budget	

1. Completion of the TDAQ System

Following the closing of the ATLAS detector for the start-up of LHC in September 2008, some 2.5 MCHF worth of TDAQ baseline equipment remains to be installed at ATLAS, before the liberation of deferred funds to be used to complete the TDAQ system (see CERN-RRB-2009-066).

Table 1 provides an update of the planned TDAQ CORE contributions for 2010, as part of the remaining TDAQ CORE funds. The projected payments of 830 kCHF correspond to purchasing some 300 High Level Trigger (HLT) boxes and related equipment, spreading over to 2011.

Table 2 shows the planned TDAQ budget for 2011, amounting to 0.9 MCHF. These payments cover the installation of additional HLT boxes and related auxiliaries and will complete the original CORE investment.

OTHER FDL

ACTIVITIES

REPORT ELEMENTS

📁 Status of IBL

📁 Description of other FDL activities

📁 Next steps

2. Other FDL Detector activities

The status of other FDL-related activities was given to the RRB in April 2010 (CERN-RRB-2010-012). An Interim-MoU (I-MoU) for the Insertable b-layer project (IBL) is now being signed by institutes and Funding Agencies involved. A copy of the I-MoU is provided in **Annex 1** for information, with sharing of tasks and related resources. The Technical Design Report is submitted to the LHCC. As part of the FDL detector configuration (CERN/LHCC/94-43), a replacement of the Inner Detector (Pixel) b-layer was envisaged. The use of the resources will be reported in the RRB, as defined in the I-MoU.

Good progress is made on the Forward Detectors (CERN/LHCC/2004-010) and the Zero Degree Calorimeter (CERN/LHCC/2007-001). A new Project Leader and Institute Board Chair have been elected and the community is currently organizing itself for executing the work ahead, in close collaboration with the Technical Coordination. This work continues being supported by some Funding Agencies on a voluntary and supplementary basis.

ATLAS management continues its informal discussions with the Funding Agencies concerning its future plans, and continues reporting progress to the RRB in 2011, as experience is gained from operating the ATLAS detector in multi-TeV collision energies.

**Planned FDL Contributions to ATLAS Detector during 2010 by
Funding Agency
(Payments, in kCHF)**

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Items	total
Argentina						0	0
Armenia						0	0
Australia						0	0
Austria						0	0
Azerbaijan						0	0
Belarus						0	0
Brazil						0	0
Canada						0	0
Chile						0	0
China NSFC+MSTC						0	0
Colombia						0	0
Czech Republic						0	0
Denmark						0	0
Finland						0	0
France IN2P3						0	0
France CEA						0	0
Georgia						0	0
Germany BMBF						0	0
Germany DESY						0	0
Germany MPI						0	0
Greece						0	0
Israel						0	0
Italy						0	0
Japan						0	0
Morocco						0	0
Netherlands						0	0
Norway						0	0
Poland						0	0
Portugal						0	0
Romania						0	0
Russia						0	0
JINR						0	0
Serbia						0	0
Slovak Republic						0	0
Slovenia						0	0
South Africa						0	0
Spain						0	0
Sweden						0	0
Switzerland					830	0	830
Taipei						0	0
Turkey						0	0
United Kingdom						0	0
US DOE+NSF						0	0
CERN						0	0
from deferrals							
total sub-detector	-	-	-	-	830	-	830

**Planned FDL Contributions to ATLAS Detector during 2011 by
Funding Agency
(Payments, in kCHF)**

Funding Agency	Inner Det.	LAr Cal.	Tile Cal.	Muon cham.	Trigger /DAQ	Common Items	total
Argentina						0	0
Armenia						0	0
Australia						0	0
Austria						0	0
Azerbaijan						0	0
Belarus						0	0
Brazil						0	0
Canada						0	0
Chile						0	0
China NSFC+MSTC						0	0
Colombia						0	0
Czech Republic						0	0
Denmark						0	0
Finland						0	0
France IN2P3						0	0
France CEA						0	0
Georgia						0	0
Germany BMBF						0	0
Germany DESY						0	0
Germany MPI						0	0
Greece						0	0
Israel						0	0
Italy						0	0
Japan						0	0
Morocco						0	0
Netherlands						0	0
Norway						0	0
Poland						0	0
Portugal						0	0
Romania						0	0
Russia						0	0
JINR					100	0	100
Serbia						0	0
Slovak Republic						0	0
Slovenia						0	0
South Africa						0	0
Spain						0	0
Sweden						0	0
Switzerland						0	0
Taipei						0	0
Turkey						0	0
United Kingdom						0	0
US DOE+NSF						0	0
CERN					767	0	767
from deferrals							
total sub-detector	-	-	-	-	867	-	867