

Resources Review Board 13/10/2010

- Core and Common Funds in 2010

- M&O Cat.A received funds for 2010 and status
- M&O Cat.A projected budgets for the coming years
- M&O Cat.A proposed 2011 budget

- M&O Cat.B status

Core

Most of the Core spending came to an end in 2006. Purchasing for DAQ and data storage is continuing throughout 2010 with the **DAQ – FARM** completion foreseen for the end of the year. The final order has been issued.

No additional requests for funds to be presented to RRB.

Common Funds situation at end of August 2010

Construction Common Funds, end of August, year 2010				
All in kCHF				
Detector	Outflow	Inflow	Committed	Totals
OTR	7.0	0	0	7.0
CALO	0	0	0	0
DAQ	35.4	0	3.5	38.9
INFRASTRUCTURE	115.4	0	8.1	123.5
MUON	0	0	0	0
RICH	0	0	0	0
TOTAL	157.8	0	11.6	169.4
RICH HPDs	92.4	-84.9	0	7.6
VELO NON CORE	76.2	-242.9	107.4	-59.3
	326.4	-327.8	119.0	117.6

We expect DAQ and Infrastructure to continue to use Common Fund throughout 2010.

In view of the long shutdown in 2012–13 and of the foreseeable important interventions on sub-detectors and on general safety and infrastructure, we have asked for an extension of the Common Funds lifetime beyond the year 2010 to **year 2013** (see also RRB-CERN-2010-040).

446 kCHF is still uncommitted at present (August 2010)*.

* An error has slipped in RRB-CERN-2010-115, where the same sentence ends with “(February 2010)”. My apologies.

Category A M&O received funds for 2010

About **90%** of the expected contributions for M&O in 2010 had been received by the end of August. That is a total of 2.41 MCHF (including Velo spare and Power). Together with the carryover of funds from 2008 and a few late payments from 2009, these contributions have ensured that there has been no cash flow problem.

Category A M&O status for year 2010
(end of August, main lines, in kCHF)

2010	Budget	Used
Detector related	920	385.4
Secretariat	192	107
Communication	50	26.7
Core computing	150	120.5
Online computing	750	326.4
Test beams	30	5.2
Laboratory	60	9.9
General services	360	182.6
Totals	2512	1163.7

2010 is the **first full operation and data taking year** and particular attention will be given to expenditures for the different budget lines. However, we do not expect large fluctuations of these lines inside an essentially constant total budget.

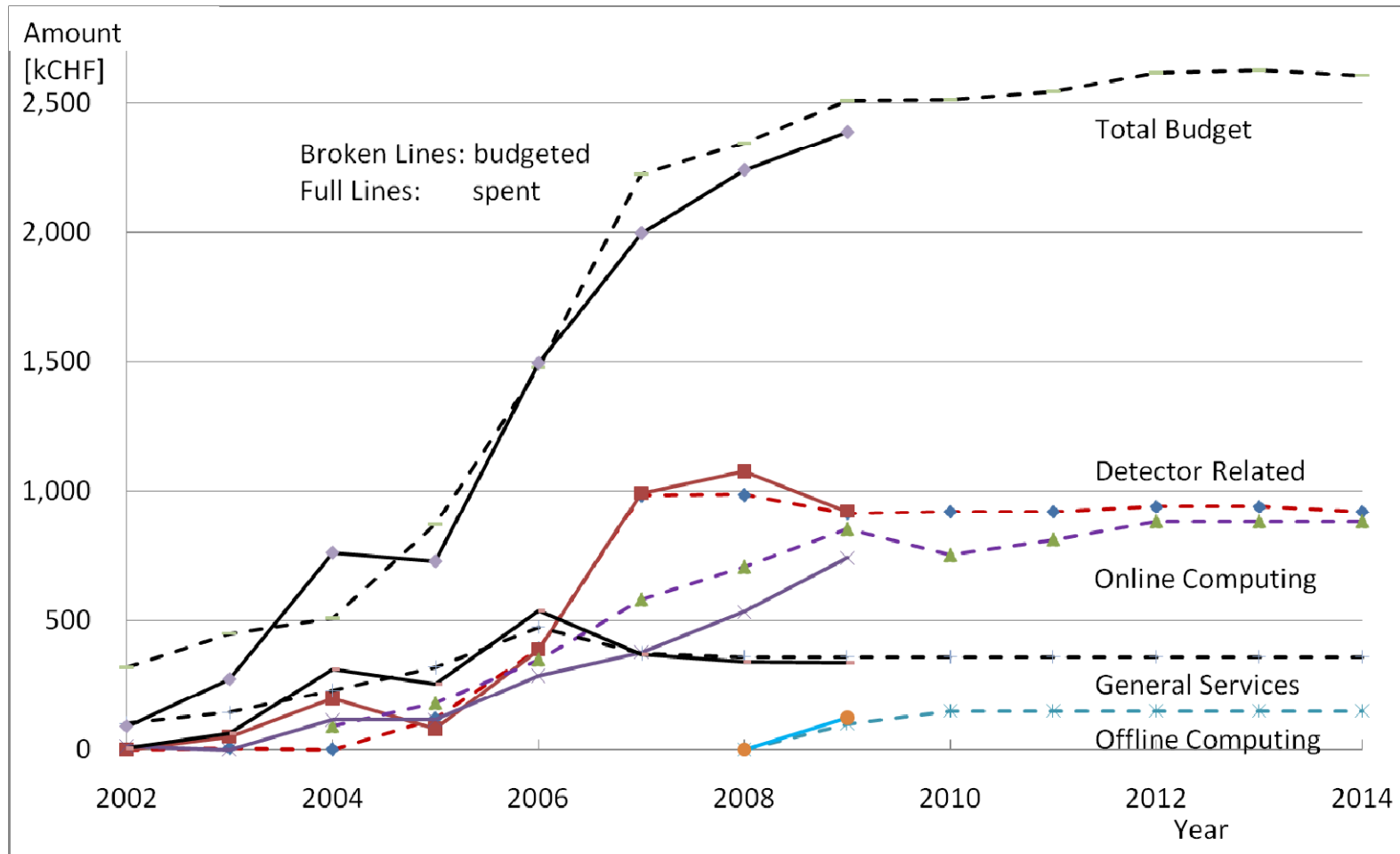
For year 2010, a small underspending in the sub line Computers and a small overspending in the line Core computing are foreseen.

Proposed evolution of Category A M&O (without VELO and Power, in kCHF)

	Year					
	2009	2010	2011	2012	2013	2014
Detector related costs	914	920	920	940	940	920
Secretariat	192	192	185	185	185	185
Communications	12	50	30	12	12	12
Core Computing	100	150	150	150	150	150
Online Computing	850	750	810	880	880	880
Test beams, calibration facilities	20	30	30	30	40	40
Laboratory operations	60	60	60	60	60	60
General services	360	360	360	360	360	360
	2508	2512	2545	2617	2627	2607

Online Computing line has been re-formulated to take in account the decision to **complete the farm** by the end of 2010, due to the present and future LHC running conditions.

Actual versus Budgeted expenditures for some M&O Cat.A main lines



Changes from 2010 (in agreement with the Scrutiny Group)

Inside an essentially constant budget, main changes again reflect an updated spending profile in the Online Computing due to the new running conditions of LHC and to our policy of acquiring computing power on “just-in-time” basis. For 2010, this line was modified from 850 kCHF to 750 kCHF and now will grow to reach a maximum of 880 kCHF from year 2012.

Other changes in the budget forecast are minor apart from a readjustment to full power cost of 970 kCHF.

As asked by the SG, we assume that the estimated cost for **EVO** is billed to the experiments for half year only; therefore, LHCb costs for 2011 will be ~18 kCHF. This amount is included in the Communications line of the budget request. From 2012, no cost has been charged.

We propose that the **2009 under spending**, 121 kCHF, is kept as a buffer in M&O A.

Proposed 2011 Category A M&O Budget

2011	PhD eq. total/ funding auth.		M&O A	VELO	Power	
			kCHF	kCHF	kCHF	
			2,545	100	970	Total
		%	CHF	CHF	CHF	CHF
BRAZIL	12	3.4	85,546	3,361	32,605	121,513
FRANCE	44	12.3	313,669	12,325		325,994
BMBF GERMANY	16	4.5	114,062	4,482		118,543
MPI, MPG, GERMANY	6	1.7	42,773	1,681		44,454
IRELAND	2	0.6	14,258	560	5,434	20,252
INFN ITALY	53	14.8	377,829	14,846		392,675
NETHERLANDS	14	3.9	99,804	3,922		103,725
P. R. CHINA	3	0.8	21,387	840	8,151	30,378
POLAND	7	2.0	49,902	1,961		51,863
HHNIPNE ROMANIA	5	1.4	35,644	1,401	13,585	50,630
RUSSIA	32	9.0	228,123	8,964	36,839	273,926
SPAIN	18	5.0	128,319	5,042		133,361
SWITZERLAND	24	6.7	171,092	6,723		177,815
UKRAINE	3	0.8	21,387	840	8,151	30,378
UK	64	17.9	456,246	17,927		474,174
USA	9	2.5	64,160	2,521	23,158	89,838
CERN	45	12.6	320,798	12,605		333,403
TOTAL	357	100.0	2,545,000	100,000	127,924	2,772,924

Category B M&O

Category B M&O budget for 2010 is given in the Table. Only minor adjustments are anticipated for 2011. The total is ~1100 kCHF, a bit less than half of the M&O Cat.A total. Category B M&O funds show to be constant over time inside ~10% .

CALO	345
HLT	0
Level_0	60
Muons	150
On Line	14
Outer Tracker	120
RICH	210
Silicon Tracker	80
VELO	115

Category B M&O budget for 2010 in kCHF