#### **MEMORANDUM**

Date 14/02/2009

To: Members of the LHCb RRB

From: O. Ullaland

Subject: Status of M&O Category A.

# **Budget Closing Report for 2008.**

LHCb stated at the last RRB that it was expected that the general spending on M&O Category A would closely follow the approved budget for 2008. The closing result for 2008 is given in Table 1. The main deviation is for the Online budget line. This is a result of our decision not to hire a third person for System Management and Data Base Support in view of the restructured schedule for LHC start-up. These services are now in place. Due to a partial understaffing of the LHCb secretariat, this budget line is also slightly under spent. As could be expected as a result of the schedule changes, the detector related cost is up by about 10 %. We propose that the overall under spending for 2008 is kept in the 2009 budget. We will report back to RRB in October.

	2008	2008	Difference
	Budget	Spent	B-S
Detector related costs	986	1,076	-90
Secretariat	192	151	41
Communications	12	11	1
CORE Computing	0	0	0
On-line computing	705	533	172
Test beams, calibration	30	34	-4
Laboratory operations	60	93	-33
General services	360	340	20
TOTAL without power	2,345	2,239	106
Power	300		

Table 1. M&O Category A in kSFr at book closing for 2008.

# Current status of 2009 M&O Category A.

RRB in November 2008 approved 2009 M&O Category A to a total of 2,508 kSFr with a power cost estimated to 600 kSF and a VELO Spare contribution over M&O A of 100 kSFr. The power was reduced from 970.0 kSFr to reflect the LHC schedule changes in 2008. In line with previous years, there are only minor movements on the M&O Category A by the end of February. We are however confident that also the expenditure this year will follow closely the budget forecast.

### Forecast for 2010 M&O Category A.

The estimated budget for 2010 will be examined with the Scrutiny Group later this year and presented for ratification to RRB in October 2009. Any revisions are unlikely to make significant changes to the overall budget. The total budget currently stands at 2,527.0 kSFr with the extra power cost at 970.0 kSFr and a VELO Spare contribution over M&O A of 100 kSFr. See Table 2. The power is as usual shared by all Funding Authorities, but only charged to Non Member States.

Budget 2010	
Detector related costs	925
Secretariat	192
Communications	10
CORE Computing	100
On-line computing	850
Test beams, calibration facilities	30
Laboratory operations	60
General services	360
TOTAL without power	2527

Power	970
VELO Spare	100

Table 2. Estimated 2010 budget in kSFr for M&O Category A.

There are only minor changes from 2009 to 2010.

The sharing between the different Funding Authorities is based on the number of PhD equivalent members at each institute. This number is normally agreed for the next year in September the previous year. With the same numbers as for 2009, the sharing is given in Table 3.

### **M&O** Category B

There are no changes since November 2008 RRB.

			2010 budget			
	2009		M&O A	VELO	Power	
	PhD eq.		kSFr	kSFr	kSFr	
	total/		2527	100	970	Total
	fund.					
	auth.	%	SFr	SFr	SFr	SFr
BRAZIL	12.0	3.70	93,499	3,700	35,871	133,070
FRANCE	40.0	12.33	311,579	12,330	0	323,909
BMBF GERMANY	11.0	3.39	85,665	3,390	0	89,055
MPI, MPG, GERMANY	5.0	1.54	38,916	1,540	0	40,456
IRELAND	3.0	0.92	23,248	920	8,968	33,136
INFN ITALY	44.0	13.56	342,661	13,560	0	356,221
NETHERLANDS	19.0	5.86	148,082	5,860	0	153,942
P. R. CHINA	3.0	0.92	23,248	920	8,968	33,136
POLAND	10.0	3.08	77,832	3,080	0	80,912
HHNIPNE ROMANIA	4.0	1.23	31,082	1,230	11,957	44,269
RUSSIA	32.0	9.86	249,162	9,860	40,529	299,551
SPAIN	17.0	5.24	132,415	5,240	0	137,655
SWITZERLAND	17.0	5.24	132,415	5,240	0	137,655
UKRAINE	4.0	1.23	31,082	1,230	11,957	44,269
UK	57.5	17.72	447,784	17,720	0	465,504
USA	6.0	1.85	46,750	1,850	16,985	65,584
CERN	40.0	12.33	311,579	12,330	0	323,909
T. 1.1. 2	324.5	100.0	2,527,000	100,000	135,233	2,762,233

Table 3. Sharing of the estimated 2010 budget in SFr for M&O Category A.

# Appendix 1.

In line with the procedure from previous years, a partial list of the main items paid from 2008 M&O Category A are given in tabulated form below.

Detector related costs				
	Magnet	60.0	kSFr	
	Gas	357.2		
	Cooling	112.8		
	Safety	38.9		
	Technical support	183.5		
	Beam pipe	122.0		
Secretariat	• •			
	Secretarial aid	150.7		
On-line computing				
	System Management	319.5		
	Hardware	209.9		
Test beams, calibration				
	Operation	33.9		
Laboratory operations				
	Operation	93.4		
General services	-			
	Cooling, venti. and distr	109.2		
	Transport	174.4		
	Survey	28.0		