

Category A M&O

Outcome for 2006

The Category A M&O spending in 2006 was very close to the budgeted amount.

The main item on which the estimate was exceeded was General Services, where transport costs were higher than expected, and some cooling and ventilation charges for 2005 were paid in 2006 along with the 2006 charges.

Category A M&O Outcome for LHCb	2006		
	Budget	Spending	Difference
Items	kCHF		kCHF
Detector related costs	392	389	3
Secretariat	166	154	12
On-Call communications	5	5	0
CORE Computing	0	0	0
On-line Computing	350	287	63
Test Beams	45	50	-5
Laboratory Operations	45	33	12
General Services	475	545	-70
Total	1478	1463	15
Power	100		
Grand Total	1578		

Current Status of 2007 budget

Poland paid its outstanding contributions last December.

The remaining outstanding contributions are from :-

Spain who asked for the invoice for 2006 but the funds have not yet arrived.

Russia's funds should arrive this year and next.

Romania has still not contributed for 2006.

No news from the Ukraine.

Only about 250 kCHF has been spent so far this year, as is normal, with most invoices expected later in the year.

Estimated Category A M&O Costs for LHCb	2008
Items	kCHF
Detector related costs	986
Secretariat	192
On-Call communications	12
CORE Computing	0
On-line Computing	705
Test Beams	30
Laboratory Operations	40
General Services	360
Total	2325
Power	970
Grand Total	3295

FUNDING AGENCY	PhD	% PhD	2008	Power	Total Cat A
	Equivs	Equivs.	Share	Share	plus Power
BRAZIL	14	3.86%	89,669	37,410	127,080
CERN	52	14.33%	333,058		
CHINA	3	0.83%	19,215	8,017	27,231
FRANCE IN2P3	48	13.22%	307,438		
GERMANY BMBF	11	3.03%	70,455		
GERMANY MPG	7	1.93%	44,835		
ITALY INFN	53	14.60%	339,463		
NETHERLANDS	15	4.13%	96,074		
POLAND	13	3.58%	83,264		
ROMANIA	4	1.10%	25,620	10,689	36,309
RUSSIA	32	8.82%	204,959	36,230	241,189
SPAIN	17	4.68%	108,884		
SWITZ Lausanne	10	2.75%	64,050		
SWITZ Zurich	6	1.65%	38,430		
UK	68	18.73%	435,537		
UKRAINE	4	1.10%	25,620	10,689	36,309
USA NSF	6	1.65%	38,430	15,183	53,613
TOTAL	363	100.00%	2,325,000	118,218	

Forecasts for later years

It is currently believed that the Cat A M&O budget has essentially reached a plateau and its total should not change much before 2011. The estimates given in the next slide reflect this.

However, the Collaboration Board has still to agree on a policy for the replacement of the FARM CPUs and this could increase the total from 2011 onwards.

Estimated Category A M&O Costs for LHCb	2009	2010	2011
Item	kCHF	kCHF	kCHF
Detector related costs	978	978	978
Secretariat	195	200	200
On-Call communications	9	9	9
CORE Computing	0	0	0
On-line Computing	740	740	740
Test Beams	25	25	25
Laboratory Operations	35	35	35
General Services	328	328	328
Total	2310	2315	2315
Power	970	970	970
Grand Total	3280	3285	3285

M&O Category B

Only the MUON and RICH have provided data for Cat B for 2008. As a result, the following table can only be taken as indicative for those detectors that have not yet provided data and which are given in *Italic font*.

About half the sub-detectors have still to provide their agreed sharing method.

Cat B estimates for 2008

Cat B 2008	TOTALS
VELO	<i>126</i>
RICH	197
ST	<i>83</i>
OT	<i>34</i>
CALO	<i>340</i>
MUON	229
TRIGGER	<i>60.3</i>
DAQ	<i>270</i>
ECS	<i>70</i>

Agreed Cat B sharing for 2008

Detector	Cat B cost for 2008 in kCHF					
	Totals					
MUON		Italy	CERN	Russia		
	229	160	46	23		
RICH		Italy	CERN	UK		
	197	15.5	15.5	166		
STR		<i>Kiev</i>	<i>Lausanne</i>	<i>MPI</i>	<i>Santiago</i>	<i>Zurich</i>
	<i>83</i>	<i>4.15</i>	<i>21.58</i>	<i>21.58</i>	<i>14.11</i>	<i>21.58</i>
L0 Trigger		<i>France</i>	<i>Italy</i>			
	<i>60.3</i>	<i>48.24</i>	<i>12.06</i>			
DAQ		<i>CERN</i>				
	<i>250</i>	<i>250</i>				

CORE Software manpower

The manpower needs have been estimated for 2008 and it is, as usual, hoped that the required support will be found on a voluntary basis without having to involve Cat A M&O funds.

The estimate remains the same as for the current year at 36.9 FTEs but the figure will be revised before the autumn RRB.

At present there are still 4.15 FTE missing to complete the requirements of the current year.