

## Report on M&O Budgets

### 1 – M&O A Expenses in 2006

Table 1 presents a summary of 2002 - 2006 category A M&O invoices, income and amounts outstanding by Funding Agency. It is noted that invoices for 2002 – 2006 for China, USA ORNL and USA OSC (Institutes or Funding Agencies that had not signed the Construction MoU) have been cancelled.

A breakdown of the 2006 Maintenance & Operations budget and expenditure is given in table 2. In addition, during 2006 an amount of 278 kCHF has been paid on commitments from previous years.

Table 3 summarizes income, expenditure and balance of the M&O A accounts for the period 2002 – 2006.

### 2 - Preliminary Estimate for M&O A Expenses in 2008

Based on presently available estimates of the 2008 M&O category A cost and the sharing as determined in September 2006, a preliminary estimate of the 2008 budget and sharing is presented in Table 4.

The budget and sharing will be updated during 2007 and presented to the Resources Review Board in October 2007 for approval.

### 3 – M&O A Estimates 2008 - 2011

The ALICE Maintenance and Operations category A budget 2007 and cost estimates for the period 2008 – 2011 are summarized in table 5.

### 4 - Category B Estimates

Table 6 shows preliminary estimates of Category B M&O budget requirements for the period 2008 – 2011. The data have been updated with respect to those presented to the Resources Review Board meeting on October 25, 2006. The data will be reviewed during 2007 before being presented to the meeting of the Resources Review Board in October 2007 for information.



Year	Country	2002 - 2005				2006			
		Invoiced	Received	In-kind	Due	Invoiced	Received	In-kind	Due
MS	CERN	518,626	518,626			371,700	371,700		
	Czech Republic	73,457	73,457			53,900	53,900		
	Denmark	30,444	30,444			21,500	21,500		
	Finland	37,855	37,855			26,900	26,900		
	France CEA	42,334	42,334			43,100	43,100		
	France IN2P3	335,995	335,995			269,400	269,400		
	Germany BMBF	241,855	241,855			161,600	161,600		
	Germany GSI	167,499	167,499			107,700	107,700		
	Greece	22,495	22,495			16,200	16,200		
	Hungary	22,242	22,242			16,200	16,200		
	Italy	891,928	891,928			635,700	635,700		
	Netherlands	61,487	61,487			43,100	43,100		
	Norway	72,158	72,158			53,900	53,900		
	Poland	132,443	88,295		44,148	102,400	68,267		34,133
	Slovak Republic	95,165	95,165			70,000	70,000		
	Spain/ Cuba								
	Sweden	39,235	39,235			26,900	26,900		
	United Kingdom	48,025	48,025			32,300	32,300		
NMS	Armenia	21,543	21,543			12,700	12,700		
	China					44,400			44,400
	Croatia	28,163	28,163			19,000	19,000		
	India	221,068	221,068			132,400	132,400		
	Japan								
	JINR	147,374	68,080		79,294	101,600			101,600
	Mexico	53,503	53,503			38,100	17,800		20,300
	Republic of Korea								
	Romania	43,348	43,348			31,700			31,700
	Russia	346,294	212,944		133,350	231,300			231,300
	South Africa	23,970	23,970			19,000	19,000		
	Ukraine	49,492	21,862	28,000	-370	19,000	18,672		328
	USA DOE	11,204	11,204			6,300	6,300		
	USA NSF	40,207	40,207			25,300	25,300		
<b>Grand Total</b>		<b>3,819,409</b>	<b>3,534,987</b>	<b>28,000</b>	<b>256,422</b>	<b>2,733,300</b>	<b>2,269,539</b>		<b>463,761</b>
<i>Percentage collected:</i>			93.3 %				83.0 %		

Table 1 – 2002 - 2006 Cat. A M&amp;O Invoices and Income (CHF)

Budget M&O Category	Consumables	Operations	Total Budget	Expenditure		Spent + committed	Ratio
				Spent	Committed		
Detector related costs	357.0	464.3	821.3	787.2	23.8	811.0	0.99
Secretariat	62.0	171.0	233.0	213.6	5.0	218.6	0.94
Communications	10.0		10.0	4.0		4.0	0.40
On-line computing	50.0	325.0	375.0	254.1		254.1	0.68
Off-line computing	75.0	176.0	251.0	200.2	44.4	244.6	0.97
Test beams & calibration facilities	155.2	40.0	195.2	115.7	2.3	118.0	0.60
Laboratory operations	100.0	160.0	260.0	197.9	24.2	222.1	0.85
General services	70.0	377.0	447.0	467.6	18.2	485.8	1.09
Consultancy		40.0	40.0	29.5		29.5	0.74
Outreach	40.0		40.0	41.8	3.1	44.9	1.12
Power	99.4		99.4		99.4	99.4	1.00
<b>Grand Total</b>	<b>1,018.6</b>	<b>1,753.3</b>	<b>2,771.9</b>	<b>2,311.5</b>	<b>220.4</b>	<b>2,531.9</b>	<b>0.91</b>

Table 2 – 2006 Cat. A M&amp;O Budget and Expenditure (CHF)

Contributions		Year					Grand Total
Budget year	2002	2003	2004	2005	2006		
2002	329,908	67,751	4,888	8,704	8,735	419,986	
2003	12,460	564,616	72,880	23,860	15,463	689,279	
2004			908,400	67,616	112,163	1,088,179	
2005			12,660	1,213,160	123,337	1,349,157	
2006				63,860	2,205,679	2,269,539	
2007					274,300	274,300	
Grand Total	342,368	632,367	998,828	1,377,200	2,739,677	6,090,440	

Note: Contributions in 2003 - 2005 includes a total of 11,599 CHF interest.

Expenditure		Year					Grand Total
Budget year	2002	2003	2004	2005	2006		
2002	201,897	45,776				247,673	
2003		502,184	75,484	20,000		597,668	
2004			827,148	240,000		1,067,148	
2005				1,134,088	273,692	1,407,780	
2006					2,311,507	2,311,507	
Grand Total	201,897	547,960	902,632	1,394,088	2,585,200	5,631,775	

Balance/year	140,471	84,407	96,196	-16,888	154,477	458,665
End year cash balance	140,471	224,879	321,075	304,187	458,665	

Table 3 – Summary of M&O Cat. A 2002 - 2006 (CHF)

	Scientists	M&O Cat A without energy	Energy	Energy billed to FA	Bill in kCHF
CERN	69	557.2	319.9		557.2
Czech Republic	11	88.8	51.0		88.8
Denmark	6	48.5	27.8		48.5
Finland	7	56.5	32.5		56.5
France CEA	8	64.6	37.1		64.6
France IN2P3	54	436.1	250.4		436.1
Germany BMBF	32	258.4	148.4		258.4
Germany GSI	18	145.4	83.5		145.4
Greece	6	48.5	27.8		48.5
Hungary	3	24.2	13.9		24.2
Italy	117	944.8	542.5		944.8
Netherlands	11	88.8	51.0		88.8
Norway	15	121.1	69.6		121.1
Poland	16	129.2	74.2		129.2
Slovak Republic	16	129.2	74.2		129.2
Spain/Cuba	6	48.5	27.8		48.5
Sweden	5	40.4	23.2		40.4
United Kingdom	7	56.5	32.5		56.5
Armenia	3	24.2	13.9	13.9	38.1
China	8	64.6	37.1	37.1	101.7
Croatia	2	16.2	9.3	9.3	25.4
India	27	218.0	125.2	119.4	337.4
Japan	5	40.4	23.2	22.3	62.6
JINR	5	40.4	23.2	23.2	63.6
Mexico	6	48.5	27.8	27.8	76.3
Republic of Korea	6	48.5	27.8	27.8	76.3
Romania	10	80.8	46.4	46.4	127.1
Russia	56	452.2	259.7	189.3	641.5
South Africa	3	24.2	13.9	13.9	38.1
Ukraine	3	24.2	13.9	13.9	38.1
USA DOE	15	121.1	69.6	67.5	188.7
USA NSF	3	24.2	13.9	13.5	37.7
Total	559	4,514.0	2,592.0	625.2	5,139.2

table 4 – Preliminary Cat. A Budget and Sharing for 2008 (kCHF)

Category	2007	2008	2009	2010	2011
Detector related costs	1,594	1,694	1,701	1,701	1,701
Secretariat	254	269	278	288	288
Communications	10	10	10	10	10
On-line computing	553	1,064	1,405	2,252	2,252
Off-line computing	383	427	427	427	427
Test beams & calibration facilities	195	195	195	195	195
Laboratory operations	260	260	260	260	260
General services	626	596	596	596	596
Power	1,233	2,592	2,592	2,592	2,592
Grand Total	5,108	7,106	7,464	8,320	8,320

Table 5 – Cat. A M&amp;O Budget 2007 and Estimates 2008 – 2011 (kCHF)

Detector	Data			
	2008	2009	2010	2011
Pixel	101	77	60	27
Drift	182	182	182	182
Strip	41	41	41	41
ITS	1	1	1	1
TPC	65	65	65	65
TRD	40	40	40	40
TOF	80	80	80	80
HMPID	150	150	150	150
PHOS	50	60	70	70
Forward	140	140	140	154
Trigger	30	30	30	30
Muontrack	105	105	105	105
Muontrig	66	66	66	66
Grand Total	1,051	1,037	1,030	1,011

Table 6 – Cat. B M&amp;O Budget Estimates 2008 – 2011 (kCHF)