



CMS

Draft Budget for M&O 2003

Compact Muon Solenoid

CERN-RRB-2002-134

Cf. CERN-RRB-2002-085

A. Petrilli, RRB-15, 22 October 2002



Introduction

- This document presents the budget request for the year 2003 for both Category A and Category B expenses.
- CMS presents a budget request for M&O-B for the first time:
 - The sharing of M&O-B expenses as decided by the subsystems is presented in detail
 - No Common-Fund-like invoicing for M&O-B is foreseen in the year 2003
- The list of PhDs participating in CMS has been updated as required by the M&O MoU



Introduction

- Both M&O-A and M&O-B expenses have been presented to the RRB Scrutiny Group for M&O and its feedback has been taken into account.
- For readability, we present all figures by Funding Agency. Details are available by Institute. For invoicing purposes, CMS will follow the same arrangements as for the year 2002.



M&O-B

- The sharing of M&O-B expenses is based:
 - On investment, whenever clear responsibilities for M&O purposes could be identified:
 - HCAL, Muon and Trigger
 - On PhD count, when this was not possible:
 - Tracker and ECAL
- CMS will monitor its M&O-B arrangement and will report to the RRB its functioning, see what problems arise, if any, and suggest changes.



2003 M&O-A Draft Budget

M&O-A (kCHF)	Year
Description	2003
Detector related costs	597
Secretariat	115
Communications	5
On-line computing	260
Test beams, calibration facilities	150
Laboratory operations	20
General services	759
Grand Total	1,906



2003 M&O-B Draft Budget

Expected Payments (kCHF or FTE)		Detector					Grand Total
Description	Details	ECAL	HCAL	Muon	Tracker	Trigger	
Material Resources	Mechanics			25			25
	Gas-system			3			3
	Cooling system	5		3			8
	FE electronics			36			36
	Standard electronics, PS (LV, HV)	7			25		32
	Standard electronics, RO Modules	1			75	120	196
	Controls, (DCS, DSS)	61		7			68
	Sub-Detector Spares	10		7			17
	Areas	30		489	50		569
	Communications	5		9	10		24
	Store Items	17		68	25		110
	Hired Manpower @ CERN (CHF)	73		159			232
Material Resources Total		209		806	185	120	1,320
Human Resources	Technical Manpower @CERN (FTE)	4	9	12		2	26
Human Resources Total		4	9	12		2	26



2003 Total M&O Draft Budget (kCHF)

Funding Agency	Category A	Category B	Total Category A+B	Category A Invoiced
Austria	20.4	15.6	36.0	17.4
Belgium	42.9	12.5	55.4	36.6
Bulgaria	10.2	16.6	26.8	8.7
CERN	110.2	67.0	177.2	110.2
China	32.7	47.7	80.4	32.7
Croatia	6.1	3.3	9.4	6.1
Cyprus	2.0	1.1	3.1	2.0
Estonia	6.1		6.1	6.1
Finland	26.5	18.9	45.4	22.6
France-CEA	30.6	16.4	47.0	26.1
France-IN2P3	85.7	35.8	121.5	73.1
Germany	79.6	42.8	122.3	67.9
Greece	30.6	14.3	44.9	26.1
Hungary	12.2	1.4	13.6	10.4
India	38.8	3.3	42.1	38.2
Iran	8.2		8.2	8.2
Italy	310.2	223.9	534.1	264.6
Korea	61.2	38.9	100.2	61.2



2003 Total M&O Draft Budget (kCHF)

Funding Agency	Category A	Category B	Total Category A+B	Category A Invoiced
Pakistan	12.2	45.7	57.9	12.2
Poland	12.2	21.5	33.7	10.4
Portugal	10.2	6.8	17.0	8.7
RDMS-DMS	104.1	10.9	115.0	104.1
RDMS-Russia	118.4	47.4	165.8	107.6
Serbia	12.2	6.6	18.8	12.2
Spain	42.9	32.1	75.0	36.6
Switzerland-ETHZ	28.6	13.5	42.0	24.4
Switzerland-PSI	24.5	9.4	33.9	20.9
Switzerland-UNIV	18.4	5.7	24.1	15.7
Taipei	22.4	12.0	34.5	22.4
Turkey	26.5		26.5	26.5
United Kingdom	63.3	28.3	91.6	54.0
USA-DOE	410.2	497.7	907.9	406.4
USA-NSF	85.7	22.6	108.3	84.9
Grand Total	1,906	1,320	3,226	1,765



Summary

The RRB is invited to approve the Draft Budget for M&O Category A for the year 2003

Furthermore, the RRB is invited to approve the Draft Budget for M&O Category B and its sharing amongst the CMS Funding Agencies

It should be noted that the M&O Category B Draft Budget will not be invoiced but that those funds should be made available to the CMS collaborating Institutes