



# ALICE

## ALICE Maintenance and Operation draft Budgets

### 1. Maintenance and Operation Category A Budget

The 2012 ALICE Maintenance and Operations Cat. A draft budget and estimates for the period 2013 - 2015 are summarized in the following table (unit = kCHF):

Category	2012	2013	2014	2015
Detector related costs	1,253	1,907	1,332	1,269
Secretariat	208	208	208	208
Communications	40	40	40	40
CORE computing	537	537	537	537
On-line computing	2,012	1,052	1,872	1,990
Test beams & calibration facilities	85	30	85	85
Laboratory operations	250	280	245	235
General services	550	880	615	570
<i>Grand Total</i>	4,934	4,934	4,934	4,934
<i>Power</i>	2,386	150	1,963	2,386
<b>GRAND TOTAL WITH POWER</b>	7,320	5,084	6,897	7,320

*Table 1: ALICE Maintenance and Operations Cat. A draft 2012 budget and estimates for the period 2013 - 2015*

The draft budget for 2012 and the estimates for the following years have been updated with respect to the data submitted to the meeting of the Resources Review Board in April 2011. The budget for the period 2012-2014 has been reduced by more than two million Swiss Francs compared to the budget presented in April 2011. This reduction mainly concerns the On-line computing and the detector related costs budgets. In agreement with the RRB Scrutiny Group, some long-term consolidation projects have been taken out from the budget and will be financed using the accumulated cash surplus.

## 2. Sharing of the 2012 Maintenance and Operation Cat. A draft budget

The following table indicates the sharing of the 2012 draft budget based on the number of 'Scientific staff holding PhD or equivalent qualifications' as defined in the Memorandum of Understanding on Maintenance and Operation:

	number of scientists ACDB as 1/9/2011	M&O Cat A without energy in CHF	Energy in CHF	Energy billed to FA in CHF	Bill FOR 2012 in CHF
CERN	50	429,043	207,478		429,043
Czech Republic	11	94,390	45,645		94,390
Denmark	8	68,647	33,197		68,647
Finland	6	51,485	24,897		51,485
France CEA	7	60,066	29,047		60,066
France IN2P3	48	411,882	199,179		411,882
Germany BMBF	37	317,492	153,534		317,492
Germany GSI	22	188,779	91,290		188,779
Greece	2	17,162	8,299		17,162
Hungary	3	25,743	12,449		25,743
Italy Centro Fermi	6	51,485	24,897		51,485
Italy INFN	107	918,153	444,003		918,153
Netherlands	10	85,809	41,496		85,809
Norway	17	145,875	70,543		145,875
Poland	18	154,456	74,692		154,456
Slovak Republic	10	85,809	41,496		85,809
Spain/Cuba	5	42,904	20,748		42,904
Sweden	3	25,743	12,449		25,743
United Kingdom	7	60,066	29,047		60,066
Armenia	2	17,162	8,299	8,299	25,461
Brazil	6	51,485	24,897	24,897	76,383
China Wuhan CCNU	4	34,323	16,598	16,598	50,922
China Beijing	1	8,581	4,150	4,150	12,730
Croatia	5	42,904	20,748	20,748	63,652
India	31	266,007	128,637	122,694	388,701
Japan	10	85,809	41,496	39,827	125,636
JINR	8	68,647	33,197	33,197	101,843
Mexico	12	102,970	49,795	49,795	152,765
Republic of Korea NRF	10	85,809	41,496	41,496	127,304
Peru	1	8,581	4,150	4,150	12,730
Romania ISS	4	34,323	16,598	16,598	50,922
Romania NIPNE	7	60,066	29,047	29,047	89,113
Russia	40	343,235	165,983	120,973	464,208
South Africa	7	60,066	29,047	29,047	89,113
Ukraine KIPT	1	8,581	4,150	4,150	12,730
Ukraine Kiev	3	25,743	12,449	12,449	38,191
USA DOE	40	343,235	165,983	161,142	504,377
USA NSF	6	51,485	24,897	24,171	75,657
Total	575	4,934,000	2,386,000	763,427	5,697,427

Table 2: Sharing of the 2012 draft budget (in CHF)

### 3. Maintenance and Operation Cat. B budget

The following table summarizes the 2012 Maintenance and Operation category B draft budget and estimates for the period 2013 - 2015 (unit = kCHF):

ref	budget description	2012	2013	2014	2015
A01	Mechanics	29	44	27	28
A02	Gas Systems	82	62	62	62
A03	Cooling Systems	110	98	108	108
A04	FEE spares	101	93	93	94
A05.1	Standard Electronics LV/HV PS	421	315	330	330
A05.2	Standard Electronics Crates	64	63	63	63
A05.3	Standard Electronics R/O modules	173	183	178	178
A06	Controls (DCS & DSS)	33	34	29	29
A07	Sub-Detector spares	82	47	42	28
A08	Areas	57	42	42	42
A09	Communications	93	93	93	93
A10	Store Items	84	98	81	81
A11.1	Technical Manpower @ CERN Industrial Support	23	14	14	14
A11.3	Technical Manpower @ CERN from Collaborating Institutes	462	453	425	423
Grand Total in kCHF		1,811	1,635	1,583	1,569

ref	budget description	2012	2013	2014	2015
A11.2	Technical Manpower @ CERN: in-kind contribution from Collaborating Institutes in man-month	180	206	160	160
Grand Total in man-month		180	206	160	160

Table 3: Maintenance and Operation Category B 2012 draft budget and estimates for the period 2013 - 2015

#### 4. Maintenance and Operation 2012 draft budget by systems and funding agencies

Sharing of the M&O-B 2012 budget in kCHF	ITS Common	ITS-SPD	ITS-SDD	ITS-SSD	TPC	TRD	TOF	HMPID	PHOS	EMCAL-DCAL	FMD	TO	VO A	VO C	PMD	ZDC	ACORDE	MUONS TRACKING	MUONS TRIGGER	CENTRAL TRIGGER	Grand Total in kCHF
CERN	25.5	42.8		23.6	23.2			43.4													158.4
Czech Republic	2.4		13.5																		15.9
Denmark					4.6						25.0										29.6
Finland												48.4									48.4
France CEA																		10.0			10.0
France IN2P3	9.1			39.5						8.4			14.0					32.0	40.0		143.0
Germany BMBF						153.1															153.1
Germany GSI					83.4																83.4
Italy INFN	71.0	42.8	206.7	63.0			72.0	101.2		18.4						35.0		27.0	30.0		667.0
Netherlands	9.8			42.4																	52.2
Norway									20.0												20.0
Poland					4.2																4.2
Slovakia	4.4	9.5			2.8																16.7
Sweden					26.0																26.0
United Kingdom																				20.0	20.0
China									10.0	5.6											15.6
Croatia					0.8																0.8
India															29.0			10.0			39.0
Japan									20.0	8.4											28.4
JINR						7.1															7.1
Mexico														11.0			15.0				26.0
Republic of Korea							48.0												5.0		53.0
Romania NIPNE						3.3															3.3
Russia	0.5		2.6	1.8					108.0									4.0			116.9
South Africa																		4.0			4.0
Ukraine	5.2		13.5	12.2																	31.0
United States DOE										36.9											36.9
United States NSF	0.1		0.7																		0.8
<b>Total</b>	<b>128.0</b>	<b>95.0</b>	<b>237.0</b>	<b>182.5</b>	<b>145.0</b>	<b>163.5</b>	<b>120.0</b>	<b>144.5</b>	<b>158.0</b>	<b>77.7</b>	<b>25.0</b>	<b>48.4</b>	<b>14.0</b>	<b>11.0</b>	<b>29.0</b>	<b>35.0</b>	<b>15.0</b>	<b>87.0</b>	<b>75.0</b>	<b>20.0</b>	<b>1810.6</b>

Table 4: Sharing of the 2012 M&O Cat. B draft budget (in kCHF)

Budget scrutinized by the RRB Scrutiny Group, as well as discussed within projects and the Funding Agencies concerned.