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ATLAS Resources Review Board, April 15, 2008

2007 - 2008 ATLAS Baseline and Cost to Completion Budgets



CERN-RRB-2008-033

ATLAS Resources Review Board, April 15, 2008

For RRB approval

Part 1 Closing Report for 2007 ATLAS Baseline and Cost to Completion Budgets

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to approve the final baseline and cost to completion payments for 2007.

he RRB approved the year 2007 baseline budget for construction activities in October 2006, amounting to 12.9 MCHF in commitments and 13.2 MCHF in payments (CERN-RRB-2006-071). The proposed budget levels for cost to completion (CtC), composing of C&I (Commissioning and Integration) and CC-B (Construction Completion Category-B), were also endorsed by the RRB at 0.7 MCHF and 1.6 MCHF in total, respectively. The budget planning and reporting for the cost to completion payments is in line with the Completion Plan (CERN-RRB-2002-114 rev.). Updates were provided in April 2007 (CERN-RRB-2007-018) and in October 2007 (CERN-RRB-2007-071).

BASELINE BUDGET
REPORT ELEMENTS
Activity Description
Budget Evolution
Table References

separately in Table 16).

1. Baseline and CC-A Budget for 2007

The initial budget estimates for 2007 were updated in April and October 2007, respectively. Final baseline and CC-A budget figures in 2007 amounted to 15.4 MCHF for commitments and 15.1 MCHF for payments. The increase in the sub-systems (notably in the TDAQ) by 4 MCHF w.r.t original plans reflects the activation of the available deferral funds (reported

Table 1 shows the 2007 ATLAS baseline budget evolution, CC-A is also included for the Common Projects.

Table 1. Evolution of the 2007 ATLAS Baseline and CC-A Budget (MCHF)

	Sub-sy	stems	Com	mon	Total (MCHF)		
			Proj	ects			
Budget Evolution	Comm.	Paym.	Comm.	Paym.	Comm.	Paym.	
2007 Budget (Oct '06)	5.1	5.4	7.8	7.8	12.9	13.2	
2007 Update (April '07)	8.6	5.9	8.1	14.6	16.7	20.5	
2007 Update (Oct'07)	7.9	4.7	8.1	14.6	16.0	19.3	
2007 Actual	9.2	4.0	6.2	11.1	15.4	15.1	

Details by system/sub-detector and Funding Agencies are presented in **Tables 2** to 4.

In **Table 3** it is observed that while Common Fund project payments reached 11.1 MCHF, contributions from Funding Agencies amounted to 5.6 MCHF, only. The resulting budget balance (-5.5 MCHF) is treated as part of the global budget position showed in Table 17.

A summary of all CORE expenses since 1995 until the end of 2007 is presented in **Table 5**, excluding costs to completion. Details about the present status of contributions made to the Common Projects by Funding Agencies can be found in document CERN-RRB-2008-032.

C & I B U D G E T R E P O R T E L E M E N T S Activity Description Payment Report Table References

2. Commissioning and Integration (C&I) for 2007

The concept of C&I was introduced in October 2001 (ATLAS RRB-D 2001-121). C&I activities comprise tasks before the construction phase is completed, taking place (mostly) outside the ATLAS Pit. The C&I costs stem from the ATLAS strategy of decentralizing assembly and

integration tasks in existing facilities at CERN, initially chosen to minimize surface building costs at Point 1, and from the use of technical services now charged to the Collaboration. The C&I cost estimates amount to 21 MCHF in total (including hired institute manpower) following a scrutiny process launched by the RRB Chairperson (CERN-RRB-2002-047). C&I does not include test-beam activities which are part of the Maintenance and Operation (M&O) framework (CERN-RRB-2002-149).

In its October 2006 meeting, the RRB accepted the proposed C&I budget of 0.7 MCHF for payments (CERN-RRB-2006-071), it being understood that Funding Agencies were not obliged but encouraged on a best effort basis to contribute their calculated share of these costs as shown in Annex 2 of that document. Moreover, it was understood that ATLAS can make well documented cash displacements from its baseline resources (such as deferred money due to staging) to match any eventual gap between the incurred payments and actual income.

The final payments for 2007 were recorded at 0.5 MCHF in Category-B with open commitments worth 0.2 MCHF. There were no in-kind contributions made. The received contributions amounted to 2.0 MCHF. In Category-A an old outstanding commitment was settled (5 kCHF).

The overall positive cash balance (+ 1.4 MCHF) contributed to the global budget balance is shown in Table 17.

For system-specific items (Category-B), commissioning of the cables and connections for Inner Detector sub-systems continued. The commissioning of the electronics for both the LAr Calorimeter and the Tile Calorimeter continued at Point 1. For the Muons, commissioning of the remaining chambers proceeded.

More details of the payment breakdown per system are shown in **Table 6** and contributions made for 2007 by Funding Agency, including both cash and in-kind contributions, are shown in **Table 7**.

CC-B BUDGET REPORT ELEMENTS Activity Description Payment Report Table References

3. Construction Completion (CC-B) for 2007

The CC-B costs are related to the completion of the ATLAS detector systems. CC-B includes tasks and items missing from the original cost estimates as well as cost increases associated with supply contracts. The breakdown of these costs is given in the document CERN-RRB-2002-114

(Annex).

In October 2006, the RRB accepted the proposed, remaining CC-B budget of 1.6 MCHF before carry-over. In October 2007, the CC-B budget was updated to 3.1 MCHF.

The final CC-B payments in 2007 amounted to 3.3 MCHF with no remaining open remaining commitments.

For the Inner Detector, the main CC-B activities in 2007 focused around completing and testing electrical and cooling components (tooling, use of test stations, cabling, related infrastructure). It should be noted that solving the technical difficulties in the Inner Detector, as reported earlier (CERN-RRB-2007-075), resulted in an over cost of 0.8 MCHF, over and above the agreed budget envelopes. In agreement with the Funding Agencies concerned, and in consultation with the RRB M&O Scrutiny Group, a corresponding financial plan was put in place in 2007 for repairing the faulty heating elements. Some 0.2 MCHF of these extra costs appear in the present reports but are compensated by corresponding amount of income. The remaining additional costs are dealt with separately.

In the Tiles and the LAr replacement of power supplies and related electronics was the main focus. Provisions worth 0.9 MCHF were made in the LAr for low-voltage backup power supplies to plan for timely delivery of replacements. In the Muon systems, resources were allocated to finishing the production of big wheels with Technical Coordination as well as connecting cables to the remaining Muon chambers. There were no in-kind contributions.

Table 8 summarizes the Category-B payments per system based on the headings used in the LHCC CORE Review in 2001 (CERN/LHCC 2001-027) and in CERN-RRB-2002-026.

Table 9 shows the CC-B income received from the Funding Agencies for 2007 per system. It amounted to 0.5 MCHF in total.

The overall negative cash balance (-2.7 MCHF) is treated as part of the global budget position shown in Table 17.

CORE and CC-A Contributions to ATLAS Detector Construction during 2007 by Funding Agency

(Commitments, in kCHF)

Funding	Inner	LAr	Tile	Muon	Trigger	Common	total
Agency	Det.	Cal.	Cal.	cham.	/DAQ	Projects	
Argentina						75	75
Armenia						0	0
Australia						115	115
Austria					160	0	160
Azerbaijan						18	18
Belarus						75	75
Brazil						0	0
Canada						428	428
China NSFC+MSTC						0	0
Czech Republic					40	0	40
Denmark						0	0
Finland						0	0
France IN2P3						710	710
France CEA						0	0
Georgia						13	13
Germany BMBF					120	0	120
Germany DESY						38	38
Germany MPI						0	0
Greece						96	96
Israel					40	0	40
Italy					365	0	365
Japan					470	0	470
Morocco						0	0
Netherlands					35	0	35
Norway						40	40
Poland					145	0	145
Portugal						2	2
Romania						0	0
Russia						0	0
JINR					100	25	125
Serbia						0	0
Slovak Republic						0	0
Slovenia						61	61
Spain						0	0
Sweden						0	0
Switzerland					335	0	335
Taipei						0	0
Turkey						0	0
United Kingdom					1745	1222	2967
US DOE+NSF		500			2020	0	2520
CERN					3160	0	3160
from past contributions						3,282	
1. om past continuations					ļ	3,202	
total sub-detector	-	500	-	-	8,735	6,200	15,435

CORE and CC-A Contributions to ATLAS Detector Construction during 2007 by Funding Agency

(Payments, in kCHF)

Funding	Inner	LAr	Tile	Muon	Trigger	Common	total
Agency	Det.	Cal.	Cal.	cham.	/DAQ	Projects	
						<u> </u>	
Argentina						275	275
Armenia						0	0
Australia						115	115
Austria					5	0	5
Azerbaijan						18	18
Belarus						83	83
Brazil						0	0
Canada						788	788
China NSFC+MSTC						340	340
Czech Republic					40	0	40
Denmark	100				125	0	225
Finland						0	0
France IN2P3						841	841
France CEA						0	0
Georgia						13	13
Germany BMBF						0	0
Germany DESY						0	0
Germany MPI						0	0
Greece						236	236
Israel						250	250
Italy						0	0
Japan					470	0	470
Morocco					.,,	0	0
Netherlands					30	0	30
Norway						190	190
Poland					145	0	145
Portugal					1.0	2	2
Romania						0	0
Russia						223	223
JINR						125	125
Serbia						0	0
Slovak Republic						0	0
Slovenia						61	61
Spain						0	0
Sweden						0	0
Switzerland					335	0	335
Taipei						0	0
Turkey						0	0
United Kingdom					685	1222	1907
US DOE+NSF		935			250	810	1995
CERN		700			900	0	900
from past Common Furmissing contributions to			et navm	ants		5,473	
_				1	4.005		4=00=
total sub-detector	100	935	-	-	2,985	11,065	15,085

CORE Common Project Contributions during 2007 by Funding Agency

(Baseline+CC-A, in kCHF)

payments

new commitments needed

Funding	in-kind	cash	m.s.	total	in-kind	Common	total
Agency	contrib.	contrib.	contrib.	contrib.	contrib.	Fund	contrib.
Argentina	0	0	275	275	0	75	75
Armenia	0	0	0	0	0	0	0
Australia	0	115	0	115	0	115	115
Austria	0	0	0	0	0	0	0
Azerbaijan	0	0	18	18	0	18	18
Belarus	0	0	83	83	0	75	75
Brazil	0	0	0	0	0	0	0
Canada	0	701	88	788	0	428	428
China NSFC+MSTC	0	340	0	340	0	0	0
Czech Republic	0	0	0	0	0	0	0
Denmark	0	0	0	0	0	0	0
Finland	0	0	0	0	0	0	0
France IN2P3	0	841	0	841	0	710	710
France CEA	0	0	0	0	0	0	0
Georgia	0	0	13	13	0	13	13
Germany BMBF	0	0	0	0	0	0	0
Germany DESY	0	0	0	0	0	38	38
Germany MPI	0	0	0	0	0	0	0
Greece	0	198	38	236	0	96	96
Israel	0	250	0	250	0	0	0
Italy	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0
Morocco	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0
Norway	0	190	0	190	0	40	40
Poland	0	0	0	0	0	0	0
Portugal	0	0	2	2	0	2	2
Romania	0	0	0	0	0	0	0
Russia	155	68	0	223	0	0	0
JINR	0	100	25	125	0	25	25
Serbia	0	0	0	0	0	0	0
Slovak Republic	0	0	0	0	0	0	0
Slovenia	0	61	0	61	0	61	61
Spain	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	0
Switzerland	0	0	0	0	0	0	0
Taipei	0	0	0	0	0	0	0
Turkey	0	0	0	0	0	0	0
United Kingdom	0	1222	0	1222	0	1222	1222
US DOE+NSF	0	810	0	810	0	0	0
CERN	0	0	0	0	0	0	0
Common Fund	0	0	0	0			
missing contributions				5,473	from past co	ntributions	3,282
total	155	4,896	541	11,065	-	2,918	6,200

Actual Cumulative Expenses for ATLAS Detector Construction 1999-EoY 2007 by Funding Agency (baseline, kCHF) Situation as of January 1, 2008

							Co	mmon Proje	ects		
Funding	Inner	LAr	Tile	muon	trigger	total	in-kind	cash	m.s.	total	total
Agency	Det.	Cal.	Cal.	cham.	/DAQ	contrib.	contrib.	contrib.	contrib.	contrib.	
Argentina	-	1		1	1		1		200	200.0	200
Argentina Armenia			95			95	+		101	100.5	196
Armema Australia	1395		93			1395	250	300	200	750.0	2145
Austria Austria	1393				15	15	200	300	100	300.0	315
Austria Azerbaiian					15	15	200		100	100.0	100
Azerbaijan Belarus									200	200.4	200
			0.5			0.5	-				
Brazil	100	0500	85			85	22.00	10.40	75 700	75.0	160
Canada	100	8590				8690	3360	1040		5100.0	1379
China NSFC+MSTC		370		765		1135		340	100	440.0	1575
Czech Republic	470		500		40	1010	315		300	615.0	1625
Denmark	900				150	1050	200	1100	100	1400.0	2450
Finland									100	100.0	100
France IN2P3	1755	18630	2110			22495	10595	5936	600	17131.0	3962
France CEA		5715		2175		7890	4420	1280	100	5800.0	1369
Georgia									100	99.6	100
Germany BMBF	7105	3158		2980	3865	17108	13315	7	900	14222.1	31330
Germany DESY									100	100.0	100
Germany MPI	1690	1722		865		4277	2075	1125	100	3300.0	7577
Greece			90	985		1075	260	190	300	750.0	1825
srael				2565	335	2900	1000	550	300	1850.0	4750
italy	4610	4245	1375	10885	4250	25365	18600		1200	19800.0	4516
Japan	6845			6805	3775	17425	11800	100	1500	13400.0	3082
Morocco		210				210			38	37.5	248
Netherlands	1530			3035	525	5090	6700		200	6900.0	1199
Norway	2325					2325	1150	450	200	1800.0	4125
Poland	405				160	565	140	60	200	400.0	965
Portugal	403		1005		100	1005	799	88	100	986.5	1992
Romania			300			300	120	30	100	250.0	550
Russia	2790	3950	811	2715		10266	4385	668	613	5665.5	1593
IINR	1120	1495	1099	1765		5479	1660	100	100	1860.0	7339
Serbia	1120	1493	1099	1705		34/7	1000	100	100	1000.0	1339
		205	45			250	50	50	100	200.0	550
Slovak Republic	040	305	45	-	-	350 840	50	50 600	100	200.0 700.0	550 1540
Slovenia	840	2240	1070	 	 		4200	600			
Spain	1210	2340	1970		505	5520	4300	20.50	300	4600.0	1012
Sweden	3080	1530	895	ļ	605	6110	1240	3060	400	4700.1	1081
Switzerland	4955	1055			1070	7080	8400	276	200	8875.5	1595
Гаіреі	1000	700				1700		1219	100	1319.0	3019
Turkey									200	200.0	200
Jnited Kingdom	13170				4830	18000	2852	10851	1300	15003.0	3300
US DOE+NSF	12040	16860	3560	8770	1140	42370	15100	15632	3301	34032.6	7640
CERN	9010	8610	3000	1500	5480	27600	7860	19438	100	27398.0	5499
in Common Fund]		
			15010	45040	0.010			64400		1 ************************************	
total sub-detector	78345	79485	16940	45810	26240	246820	121146	64489	15126	200761	44758

ATLAS C+I (A) and (B) Payments in 2007 (kCHF)

Item & Cost Driver	Cat. A								Cat. B	Item & Cost Driver
(by RRB/LHCC SG Headings)	C&I	Pixel	SCT	TRT	IDGen	LAr	TileC	Muon	C&I	(by RRB/LHCC SG Headings)
(,,										(a)g
Detector related costs	5					4	9	154	167	Mechanics & Gas & Cooling & Cryogenics
Design and engineering tasks										Gases (LAr, Tiles, Muons)
										, , , , , , , , , , , , , , , , , , , ,
Secretariat						3	14	35	52	Standard electronics
										FE electronics (LAr)
Communications									0	Detector controls
										small components
On-line computing					60	6	20		86	Areas
										SR-building operation (ID)
Test beams, facilities					2				2	Communications
										GSM phones
Laboratory operations					53		1		54	Store items
Infrastructure at Point 1 (cranes, access										Store materials (metal sheet, cables,
support structures, tech. services)										connectors, components)
General services									0	Sub-detector spares
Heavy transport, crane operations										
Technical expertise										
TOTAL	_	0	0	۱ ۵	115	12	144	100	261	(Faraladia a kinadana ana ana fara Carina a Pi
IUIAL	5	0	0	0	115	13	44	189	361	(Excluding hired manpower for Category B)
Hired manpower at CERN (in kCHF)	incl. above	I							0	T
Hired institute manpower (in kCHF)	mei, anove				132	13	18	24	187	
Institute manpower (in FTE)	0				134	13	10	44	0	
institute manpower (in FTE)	v	1							U	
TOTAL C&I FOR A	5	0	0	0	247	26	62	213	548	TOTAL C&I FOR B
TOTAL C&I FOR A	5	0	0	0	247	26	62	213	548	TOTAL C&I FOR B

Notes

^{1.} Category A is charged to the entire Collaboration, B to the respective systems based on CORE.

C+I Contributions (cash and in-kind) for ATLAS in 2007 by Funding Agency

(Categories A and B, in kCHF)

Funding Agency	Cat. A		Cat	tegor	v B iter	n contr	bution	s	Total	Total
	items				IDGen		TileC		Cat. B	A+B
Argentina									0	0
Armenia									0	0
Australia	56				29				29	85
Austria									0	0
Azerbaijan									0	0
Belarus									0	0
Brazil									0	0
Canada									0	0
China NSFC+MSTC									0	0
Czech Republic									0	0
Denmark									0	0
France IN2P3									0	0
France CEA						150		115	265	265
Georgia	4								0	4
Germany BMBF									0	0
Germany DESY									0	0
Germany MPI									0	0
Greece	36							52	52	88
Israel									0	0
Italy									0	0
Japan									0	0
Morocco									0	0
Netherlands									0	0
Norway									0	0
Poland									0	0
Portugal									0	0
Romania									0	0
Russia									0	0
JINR									0	0
Serbia									0	0
Slovak Republic									0	0
Slovenia		1						1	0	0
Spain		1							0	0
Sweden		1						 	0	0
Switzerland		1						 	0	0
Taipei		1						 	0	0
Turkey									0	0
United Kingdom	32								0	32
US DOE + NSF	1500	1						+	0	1500
CERN	1300	1						 	0	0
	<u> </u>	UI				I		1 1	J	
total contributions	1,628	0	0	0	29	150	0	167	346	1,974
other income*									0	0
total payments	5				247	26	62	213	548	553
balance										1,421
Duidiice										1,741

Notes:

^{*}Funds available either in baseline or by using deferral funds or contribution advancements Cost sharing based on CORE contributions

ATLAS CC-B Payments in 2007 (kCHF)

							Cat. B	Item & Cost Driver
Pixel	SCT	TRT	IDGen	LAr	TileC	Muon	CC	(by LHCC CORE Headings)
				67			67	Non-CORE Infrastructure Storage, test areas, modifications, repairs
	518			218	304	672	1,712	Additional CORE Tooling, test-stations, detector equipment
				1,479			1,479	Non-covered CORE Detector equipment
0	518	0	0	1,764	304	672	3,258	Total

3,258	TOTAL CC FOR B

Notes

Category B is system-specific and based on CORE sharing Payments 2007 CC Category A are included in Table 4

CC-B Contributions (cash and in-kind) for ATLAS in 2007 by Funding Agency (in kCHF)

Funding Agency		Ca	tegor	y B iter	n contr	ibutions	,	Total
	Pixel	SCT	TRT	IDGen	LAr	TileC	Muon	Cat. B
	•				•			
Argentina								0
Armenia								0
Australia		13		4				17
Austria								0
Azerbaijan								0
Belarus								0
Brazil								0
Canada								0
China NSFC+MSTC								0
Czech Republic								0
Denmark								0
France IN2P3	64			11	80			155
France CEA							55	55
Georgia								0
Germany BMBF								0
Germany DESY								0
Germany MPI								0
Greece							52	52
Israel								0
Italy								0
Japan								0
Morocco								0
Netherlands								0
Norway								0
Poland		5						5
Portugal						24		24
Romania								0
Russia								0
JINR								0
Serbia								0
Slovak Republic								0
Slovenia								0
Spain								0
Sweden								0
Switzerland								0
Taipei								0
Turkey								0
United Kingdom								0
US DOE + NSF								0
CERN								0
total contributions	64	18	0	15	80	24	107	308
			•	•				
other income*	127			105				232
total payments		518			1764	304	672	3,258
balance								-2,718

Notes:

^{*}Funds made available outside present budget envelopes



CERN-RRB-2008-033

ATLAS Resources Review Board, April 15, 2008

For RRB to take note

Part 2 Update on the Planned 2008 ATLAS Baseline and Cost to Completion Budgets

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to take note of the updated, remaining baseline and cost to completion payments for 2008.

n October 2007, the RRB approved the year 2008 ATLAS baseline and cost to completion budgets (CERN-RRB-2007-071). The baseline commitments were planned at 4.8 MCHF and payments 3.0 MCHF, respectively. The year 2008 completes the construction payments, both for the baseline and cost to completion (CtC). The present budget planning and reporting for the cost to completion payments is in line with the Completion Plan (CERN-RRB-2002-114 rev.).

BASELINE BUDGET
REPORT ELEMENTS
Cummany I Indaha

1. Baseline and CC-A Budget Update for 2008

5 Summary Update

Budget Evolution

Table References

The updated planned 2008 baseline commitments are estimated at 4.2 MCHF and project payments at 4.4 MCHF, respectively. This represents an increase of 45% in payments w.r.t the original budget, within the approved budget envelope. This shift is due to delaying the procurement and

installation of the initial TDAQ processors to the last possible moment, in line with the latest LHC start-up schedule (mid June).

Table 10 shows the 2007 ATLAS baseline budget evolution. Commitments include also making available the deferral funds. Payments indicate costs paid by the Project.

Table 10. Evolution of the 2008 ATLAS Baseline Budget (MCHF)

	Sub-systems		Com Proj	_	Total	(MCHF)
Budget Evolution	Comm.	Paym.	Comm.	Paym.	Comm.	Paym.
2008 Budget (Oct '07)	4.2	2.4	0.6	0.6	4.8	3.0
2008 Update (April '08)	3.9	4.1	0.3	0.3	4.2	4.4

Details by system/sub-detector and Funding Agencies are presented in **Tables 11 to 13**. Several comments are made.

First, in the Common Projects contributions from some Funding Agencies are late w.r.t budgeted payments already made by the Project. This has been reported to the RRB in previous documents (see Part I of the present document and CERN-RRB-2007-018). For this reason, the column "Common Projects" in Table 12 (10.2 MCHF) refers to remaining due baseline **income** to balance past project payments. The remaining net project payments in the Common Fund amount to 0.3 MCHF and they are related to terminating contractual obligations on the Common Fund. Corresponding provisions have been made.

Second, the due baseline contributions in Table 12 (10.2 MCHF) assume all outstanding contributions arrive in 2008. Despite best efforts made by all parties concerned, this is unlikely to happen. The Common Fund is therefore expected to remain in a negative balance for the next coming years (see Table 17 for a global view).

Third, it should be noted that for some Funding Agencies, past reported contributions have exceeded the original CORE values. The final, reported contributions will be aligned with the CORE values and any differences will be recorded separately.

Finally, the above figures do not include additional costs related to maintaining present installation and commissioning teams active beyond the closing date of the beam-pipe as part of the present financial plan (August 2007). The total additional net cost is estimated at 0.2 MCHF per month until closing of the beam-pipe. The share of the final costs falling on the Common Fund is not yet known but can ultimately be absorbed at the expense of purchasing TDAQ processors, assuming all remaining due contributions are received.

C&I BUDGET	2. Commissioning and Integration (C&I)
REPORT ELEMENTS	All Commissioning and Integration (C&I) activities ended in
Summary Update	2007. The remaining open commitments related to C&I
Payment Plan	payments made in previous years amount to 0.4 MCHF have
Table References	been paid in early 2008 thus completing all C&I payments.
Outstanding contribut	tions (so-called Category-1) from Funding Agencies amount to
13 kCHF.	

Table 14 shows the remaining payments for each sub-system as well outstanding contributions for each Funding Agency (Categories A and B). A negative budget balance (- 0.4 MCHF) is treated as part of the global budget position shown in Table 17.

CC-B BUDGET REPORT ELEMENTS Summary Update Payment Plan Table References

3. Construction Completion (CC-B)

All construction completion Category-B (CC-B) activities ended in 2007. There are no remaining open commitments from past years. Outstanding contributions (so-called Category-1) from Funding Agencies amount to 0.3 MCHF.

Table 15 shows the expected remaining CC-B contributions for 2008 for each Funding Agency and system.

A positive budget balance (+0.3 MCHF) is observed. This is treated as part of the global budget position in Table 17.

Although the global budget balance is addressed below, it is worth noting here that the deferral scheme endorsed by the RRB in 2002 has not been entirely successful in avoiding the projected budget deficit.

The deferral scheme was approved by the RRB in 2002 as part of the Completion Plan (CERN-RRB-2004-114 rev.) to financially bridge the gap between the planned cost to completion (CtC) payments (68 MCHF) and pledged contributions (initially, 47 MCHF). This has been achieved by staging certain baseline detector components, mostly TDAQ processors, thus redirecting originally committed baseline CORE MoU funds towards completing the initial detector. At present, the deferred cash amounts to 9 MCHF. These staged items will then be restored centrally by the ATLAS management once the received CtC contributions reach 68 MCHF.

Table 16 shows the present status and allocation of deferral contributions, as part of the Completion Plan (CERN-RRB-2002-114 rev.). These contributions will be included in the final CORE contribution reporting.

Table 17 below provides an update of the global view of the budget balance evolution presented in the October 2007 RRB (CERN-RRB-2007-071, Table 7). At present, a 3 MCHF cumulative budget deficit is expected to remain until 2010, unless all committed baseline and pledged CtC contributions are received sooner. Unless these contributions are obtained, ATLAS is forced to reduce correspondingly the purchase of TDAQ processors thus compromising the required trigger threshold levels.

In Table 17 part of due baseline and CC-A contributions are expected to arrive only after 2008 (estimated today at ca. 7 MCHF). The Funding Agencies in questions are not in a position to write firm pledges to permit ATLAS to obtain financial help from CERN. As a result, ATLAS Common Fund is in the negative, taking also into account the use of available deferral funds.

The ATLAS and CERN Management continue their efforts to secure the due contributions from the Funding Agencies and will report on the situation in the October RRB.

While working on the Funding Agencies which have not yet contributed their baseline or calculated shares of cost to completion, ATLAS kindly invites Funding Agencies to make voluntary contributions toward the missing 3 MCHF indicated by Table 17 to reduce the present cash flow deficit on the Common Fund. These voluntary contributions will be accounted for as contributions for the future.

Table 17. Updated evolution of the ATLAS Budget Balance (MCHF)

PAYMENTS	95-01	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
								_	_		
Baseline + CC(A)	231	71	56	52	43	29	19	5	2	2	509
of which deferrals					-3	-2	-4				-9
C&I (A+B)	0	1	3	4	9	2	1	0			21
CC (B)		1	1	1	4	2	3				12
TOTAL	231	73	61	57	54	30	19	5	2	2	532
INCOME	95-01	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Baseline + CC(A)	252	65	55	54	33	15	13	7	2	1	495
C&I (A+B)		1	9	3	4	4	2	0			23
CC (B)		2	4	2	1	2	0	0			11
TOTAL	252	68	68	59	38	20	15	8	2	1	529
TOTAL	232	00	00	39	30	20	13			1	327
BUDGET BALANCE	21	-5	7	2	-15	-11	-4	3	0	-1	-3
CUMULATIVE	21	15	23	25	9	-1	-6	-3	-3	-3	
CUMULATIVE (OCTOBER 2007)	21	15	23	25	9	-1	-7				

Annex 1 and **2** provide a global view of the status of pledged contributions and planned, approved payments. Annex 1 shows the actual and planned income for each Funding Agency for cost to completion. Annex 2 summarizes received baseline and CtC (Category-1) contributions per Funding Agency as well as the remaining (and calculated) contributions to the baseline and cost to completion.

Planned CORE and CC-A Contributions to ATLAS Detector

Construction during 2008 by Funding Agency

(Commitments, in kCHF)

Funding	Inner	LAr	Tile	Muon	Trigger	Common	total
Agency	Det.	Cal.	Cal.	cham.	/DAQ	Projects	
Argentina						0	0
Armenia						0	0
Australia						0	0
Austria						0	0
Azerbaijan						0	0
Belarus						0	0
Brazil						0	0
Canada						0	0
Chile					180	138	318
China NSFC+MSTC						0	0
Colombia						138	138
Czech Republic						0	0
Denmark						0	0
Finland						0	0
France IN2P3						0	0
France CEA						0	0
Georgia						0	0
Germany BMBF						0	0
Germany DESY					180	0	180
Germany MPI					100	0	0
Greece						0	0
Israel					40	0	40
Italy					10	0	0
Japan						0	0
Morocco						0	0
Netherlands						0	0
Norway						0	0
Poland						0	0
Portugal					150	0	150
Romania					130	0	0
Russia						0	0
JINR						0	0
Serbia						0	0
Slovak Republic						0	0
Slovenia Slovenia				1		0	0
Spain						0	0
Sweden						0	0
Switzerland					930	0	930
Taipei					750	0	0
Turkey						0	0
United Kingdom						0	0
US DOE+NSF					845	0	845
CERN					1570	0	1570
			1	1	2070	Ŭ	20.0
from past Common Fu	nd contrib	outions				0	
pass common I u	30110110					v	
total sub-detector	_	-	_		3,895	276	4,171
				1	- ,		-,

Planned CORE and CC-A Contributions to ATLAS Detector

Construction during 2008 by Funding Agency

(Payments, in kCHF)

Funding	Inner	LAr	Tile	Muon	Trigger	Common	total
Agency	Det.	Cal.	Cal.	cham.	/DAQ	Projects	
	•						
Argentina						0	0
Armenia						29	29
Australia						350	350
Austria					135	0	135
Azerbaijan						0	0
Belarus						0	0
Brazil						63	63
Canada						1500	1500
Chile						138	138
China NSFC+MSTC						0	0
Colombia						138	138
Czech Republic						0	0
Denmark					350	0	350
Finland						0	0
France IN2P3						0	0
France CEA						0	0
Georgia						0	0
Germany BMBF						2	2
Germany DESY						0	0
Germany MPI						0	0
Greece						0	0
Israel					40	250	290
Italy						2288	2288
Japan						600	600
Morocco						125	125
Netherlands						0	0
Norway						0	0
Poland						0	0
Portugal					150	0	150
Romania						0	0
Russia						2597	2597
JINR					100	440	540
Serbia						0	0
Slovak Republic						0	0
Slovenia						0	0
Spain						0	0
Sweden						0	0
Switzerland					930	0	930
Taipei						0	0
Turkey						0	0
United Kingdom						0	0
US DOE+NSF					845	1640	2485
CERN					1570	0	1570
from past Common Fu	nd contril	butions				0	
missing contributions t	o moot nl	nnod n=	ajaat nass	mante	· I		
	o meet pla	anneu pr	oject pay	ments		-	
total sub-detector	-	-	-	-	4,120	10,160	14,280

Planned CORE Common Project Contributions during 2008 by Funding Agency

(Baseline+CC-A, in kCHF)

payments

new commitments needed

Agency	Funding	in-kind	cash	m.s.	total	in-kind	Common	total
Argentina	_							
Armenia	rigency	contro.	contro.	contro.	contrib.	contro.	Tuna	contrib.
Armenia	Argentina	0	0	0	0	0	0	0
Australia	O			_				
Austria				_				
Azerbaijan O				_				
Belarus				_				
Brazil	•							
Canada								
Chile								
Chima NSFC+MSTC				Ţ.				
Colombia O O 138 138 O 138 138 Czech Republic O O O O O O O O O								
Czech Republic				_				
Denmark								
Finland France IN2P3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	_			_				
France IN2P3 France CEA 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				_				
France CEA				_				
Georgia				_				
Germany BMBF				_				
Germany DESY O	O			_				
Germany MPI Greece 0 0 0 0 0 0 Israel 0 250 0 250 Italy 0 2288 0 2288 0 0 0 0 Morocco 0 50 75 125 0 0 0 0 Norway 0 0 0 0 0 Poland 0 0 0 0 0 Portugal 0 0 0 0 0 0 Russia 0 2247 350 2597 INR 0 4440 0 4440 Serbia 0 0 0 0 0 0 Slovak Republic 0 0 0 0 0 0 Spain 0 0 0 0 0 0 Sweden 0 0 0 0 0 0 Switzerland 0 0 0 0 0 0 0 Switzerland 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0								
Greece 0	•			_				
Israel 0 250 0 250 0 0 0 Italy 0 2288 0 2288 0 0 0 0 Japan 0 600 0 600 0 0 0 0 Morocco 0 50 75 125 0 0 0 0 Netherlands 0 0 0 0 0 0 0 0 Norway 0 0 0 0 0 0 0 0 Poland 0 0 0 0 0 0 0 0 Portugal 0 0 0 0 0 0 0 0 Romania 0 0 0 0 0 0 0 0 Russia 0 2247 350 2597 0 0 0 0 JINR 0 440 0 440 0 0 0 Serbia 0 0 0 0 0 0 0 Slovak Republic 0 0 0 0 0 0 Slovenia 0 0 0 0 0 0 Spain 0 0 0 0 0 0 Sweden 0 0 0 0 0 0 Switzerland 0 0 0 0 0 0 Turkey 0 0 0 0 0 0 United Kingdom 0 0 0 0 0 CERN 0 0 0 0 0 0 missing contributions to meet planned project payments -	•			_				
Italy				_				
Japan				_				
Morocco 0 50 75 125 0 0 0 Netherlands 0 0 0 0 0 0 0 0 Norway 0 </th <th>-</th> <th></th> <th></th> <th>_</th> <th></th> <th></th> <th></th> <th></th>	-			_				
Netherlands	_			_				
Norway 0 0 0 0 0 0 Poland 0 0 0 0 0 0 0 0 Portugal 0	Netherlands	0			0	0	0	0
Poland 0 <th></th> <th></th> <th></th> <th>_</th> <th></th> <th></th> <th></th> <th></th>				_				
Portugal 0	•	0	0	0	0	0	0	0
Russia		0	0	0	0	0	0	0
Serbia	Romania	0	0	0	0	0	0	0
Serbia 0	Russia	0	2247	350	2597	0	0	0
Slovak Republic 0	JINR	0	440	0	440	0	0	0
Slovenia	Serbia	0	0	0	0	0	0	0
Slovenia	Slovak Republic	0	0	0	0	0	0	0
Sweden 0 0 0 0 0 0 Switzerland 0	Slovenia	0	0	0	0	0	0	0
Switzerland 0 0 0 0 0 Taipei 0 0 0 0 0 0 0 Turkey 0	Spain	0	0	0	0	0	0	0
Taipei 0 0 0 0 0 0 Turkey 0 0 0 0 0 0 0 United Kingdom 0 0 0 0 0 0 0 0 US DOE+NSF 0 1640 0 1640 0 0 0 0 CERN 0 0 0 0 0 0 0 0 Common Fund 0 0 0 0 0 0 0 missing contributions to meet planned project payments	Sweden	0	0	0	0	0	0	0
Turkey 0 0 0 0 0 0 United Kingdom 0 0 0 0 0 0 0 0 US DOE+NSF 0 1640 0 1640 0	Switzerland	0	0	0	0	0	0	0
United Kingdom 0	Taipei	0	0	0	0	0	0	0
US DOE+NSF 0 1640 0 1640 0 0 0 CERN 0 0 0 0 0 0 0 Common Fund 0 0 0 0 0 missing contributions to meet planned project payments - -	Turkey	0	0	0	0	0	0	0
US DOE+NSF 0 1640 0 1640 0 0 0 CERN 0 0 0 0 0 0 0 Common Fund 0 0 0 0 0 missing contributions to meet planned project payments - -	United Kingdom	0	0	0	0	0	0	0
Common Fund 0 0 0 missing contributions to meet planned project payments -		0	1640	0	1640	0	0	0
missing contributions to meet planned project payments -	CERN	0	0	0	0	0	0	0
missing contributions to meet planned project payments -								
	Common Fund	0	0	0	0			
total - 9,367 793 10,160 - 276 276	missing contributions to	meet planne	d project pa	yments	-			
	total		9,367	793	10,160		276	276

Planned C+I Contributions (cash and in-kind) for ATLAS in 2008 by Funding Agency (Categories A and B, in kCHF)

Funding Agency	Cat. A		Ca	tegar	v R iter	n contr	ibutions	3	Total	Total
r unumg rigency	items	Pivel			IDGen		TileC	Muon	Cat. B	A+B
ļ	ittiis	1 IACI	БСІ	1111	IDGen	12/11	Thee	Muon	Cat. B	1111
Argentina									0	0
Armenia									0	0
Australia									0	0
Austria									0	0
Azerbaijan									0	0
Belarus									0	0
Brazil									0	0
Canada									0	0
Chile									0	0
China NSFC+MSTC									0	0
Colombia									0	0
Czech Republic									0	0
Denmark									0	0
France IN2P3									0	0
France CEA	13	1				 	1		0	13
Georgia	13	1				-			0	0
Georgia Germany BMBF		1				-			0	0
Germany DESY		1							0	0
Germany MPI									0	0
Greece									0	0
Israel						-			0	0
						-				
Italy									0	0
Japan										
Morocco									0	0
Netherlands									0	0
Norway									0	0
Poland									0	0
Portugal									0	0
Romania		-							0	0
Russia									0	0
JINR									0	0
Serbia									0	0
Slovak Republic									0	0
Slovenia									0	0
Spain									0	0
Sweden		1				1			0	0
Switzerland									0	0
Taipei									0	0
Turkey									0	0
United Kingdom									0	0
US DOE + NSF									0	0
CERN									0	0
total contributions	12	0	0	0	0	0	I 0	0	0	12
total contributions	13	0	0	0	0	0	0	U	U	13
other income*									0	0
								. '		
total payments					231			188	419	419
balance										(406)

Notes:

^{*}Funds available either in baseline or by using deferral funds or contribution advancements

Planned CC-B Contributions (cash and in-kind) for ATLAS in 2008 by Funding Agency (in kCHF)

Funding Agency		Ca	tegory	B iten	ı contr	ibutions		Total	
	Pixel		TRT			TileC	Muon	Cat. B	
Argentina								0	
Armenia								0	
Australia								0	
Austria								0	
Azerbaijan								0	
Belarus								0	
Brazil								0	
Canada								0	
Chile								0	
China NSFC+MSTC								0	
Colombia								0	
Czech Republic								0	
Denmark								0	
France IN2P3								0	
France CEA					213		60	273	
Georgia								0	
Germany BMBF								0	
Germany DESY								0	
Germany MPI								0	
Greece								0	
Israel								0	
Italy								0	
Japan								0	
Morocco					3			3	
Netherlands								0	
Norway								0	
Poland								0	
Portugal						13		13	
Romania						10		0	
Russia								0	
IINR					13			13	
Serbia					10			0	
Slovak Republic								0	
Slovak Republic Slovenia				12				12	
Spain Spain								0	
Sweden								0	
Switzerland	-						 	0	
Taipei	-						 	0	
Turkey	-							0	
United Kingdom	-							0	
US DOE + NSF								0	
CERN	-							0	
CEMI	L						<u> </u>	U	
otal contributions	0	0	0	12	229	13	60	314	
other income*								0	
total payments								0	
balance			-					314	

Notes:

^{*}Funds available either in baseline or by using deferral funds or contribution advancements

Status of Deferral Contributions (cash and in-kind) for ATLAS by Funding Agency (in kCHF)

(February 29, 2008)

Funding Agency	Contr	ibution		Deferral con	tributio	on alloc	ated to			Tota
	Pixel	TDAQ	Magnets	LArCC Infrastr.	ID	LAr	TileC	Muon	TDAQ	alloc
Argentina										0
Armenia										0
Australia										0
Austria		100	100							100
Azerbaijan		100	100							0
Belarus										0
Brazil										0
Canada										0
China NSFC+MSTC										0
Czech Republic										0
Denmark		500	500							500
France IN2P3	380	200	380							380
France CEA	200		500							0
Georgia										0
Germany BMBF	810	780	915					275	400	1590
Germany DESY	010	700	713					213	400	0
Germany MPI										0
Greece										0
Israel										0
Italy		605							605	605
Japan		750	750						003	750
Morocco		750	730							0
Netherlands		325	325							325
Norway		323	323							0
Poland										0
Portugal		50	50							50
Romania		30	30							0
Russia										0
JINR										0
Serbia										0
Slovak Republic										0
Slovak Kepublic Slovenia										0
Spain	-	 								0
Sweden	-	 							 	0
Sweden Switzerland		2000		77	1089	834	1			2000
Switzeriand Taipei		2000		11	1009	034				2000
Tarpei Turkey		150	150		1					150
Turkey United Kingdom		1110	1110		1					1110
United Kingdom US DOE + NSF		1110	1110		-					0
		2950	2950		-					2950
CERN		4950	2930		1	<u> </u>	<u> </u>	<u> </u>	I	2930
total contributions	1,190	9,320	7,230	0 77	1,089	834	0	275	1005	10,51
conversations	-9170	- ,0 =0	.,250	· //	2,007	001		_,_	1000	-0,0

Notes:

Deferral scheme as part of the Cost to Completion Plan (CERN-RRB-2002-114 rev.)
Deferral funds refer to resources allocated to original CORE obligations now staged
Total of approved deferral funding is 13 MCHF for TDAQ and 2 MCHF for Pixels
Resources directed back to TDAQ reduce the available cash accordingly
The deferral contributions will be included in the final CORE baseline payments report

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0005 2006 0 0 0 0 0 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 454 0 0 0 54 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2008 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 13 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	otal To 0 0 56 15 0 0 0 336 0 20 0 31 0 751 258 4	otal 0 5 56 15 4 10 4 336 0 20 0 31 71 865 295	0 3 13 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	2003 0 4 17 0 0 0 0 71 0 10 0 33 0 40	2004 0 0 0 0 0 0 0 0 0 0 0 22.7 0 146	2005 0 0 0 0 0 0 0 155 0 3 0 19.3	0 0 0 0 0 0 0 0 0 0	2007 0 0 29 0 0 0 0 0 0 0 0	2008 0 0 0 0 0 0 0 0 0 0 0 0 0	2009 0 0 0 0 0 0 0 0 0 0 0 0 0	2010 7 0 0 0 0 0 0 0 0 0 0	Total 0 7 59 0 0 1 226 22 89 10	Total 0 13 59 0 0 11 226 22 89 60	Invoiced Total 0 7 115 15 0 0 1 562 42 120 10	G.Total 0 18 115 15 4 10 15 562 42 120 131
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5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0	15 0 0 0 336 0 20 0 31 0 751 258	15 4 10 4 336 0 20 0 31 71 865	0 0 0 1 0 0 0 0 0 14 10 54	0 0 0 0 71 0 10 0 33	0 0 0 0 0 0 0 9 0 22.7	0 0 0 0 155 0 3 0 19.3	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 1 226 22	0 0 0 11 226 22	15 0 0 1 562 42	15 4 10 15 562 42 120
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	0 0 0 336 0 20 0 31 0 751 258	4 10 4 336 0 20 0 31 71 865	0 0 1 0 0 0 0 0 14 10 54	0 0 0 71 0 10 0 33	0 0 0 0 0 0 9 0 22.7	0 0 0 155 0 3 0 19.3	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	0 0 1 226 22	0 0 11 226 22 89	0 0 1 562 42	4 10 15 562 42 120
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0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 3336 0 0 0 0 5 0 0 0 0 0 0 0 0 11 7400 0 454 0 0 0 0 54 0 0 0 0 106		0 0 0 0 0 0 0 0 0 0 0 0 13	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0	0 336 0 20 0 31 0 751 258	4 336 0 20 0 31 71 865	1 0 0 0 0 14 10 54	0 71 0 10 0 33 0	0 0 0 9 0 22.7	0 155 0 3 0 19.3	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	1 226 22 89	226 22 89	1 562 42 120	15 562 42 120
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50 206 2 0 247			0	0	0	36	36	0	0	0	0	0	52	0	0	0	52	52	88	88
0 247		0	0	0	0	106	107	14	72	50	0	0	0	0	0	0	136	135	242	242
	205 205	0	0	0	0	966	1007	0	418	93	190	262	0	0	0	0	963	980	1929	1987
	436 0	0	0	0	0	683	683	0	0	290	360	0	0	0	0	0	650	650	1333	1333
0 0	0 0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6	0	10
18 141	82 0	0	0	0	0	341	341	34	65	83	43	0	0	0	0	0	225	225	566	566
32 38	22 0	0	0	0	0	92	92	23	29	26	20	0	0	0	0	0	98	98	190	190
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balance cumulative

ACTUAL & PLANNED INCOME FOR ATLAS CONSTRUCTION COMPLETION (kCHF)

Annex 1

Funding Agency	CC (A) Ca					Calc.	CC (B)						- (Calc.	Invoice	Calc.							
	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total	Total	2002	2003	2004	2005	2006	2007	2008	2009	2010 T	Total	Total	Total	G.Total	
Argentina	0	0	0	0	0	75	0	0	0	75	0	0	0	0	0	0	0	0	0	0	0	0	75	0	
Armenia	0	0	0	0	9	0	29	0	0	38		0	0	0	0	0	0	0	0	0	0	10	38	48	
Australia	0	0	0	50	25	115	0	0	0	190	190	10	14	11	0	0	17	0	0	0	52	52		242	
Austria	0	12	14	13	13	0	0	0	0	52	52	0	0	0	0	0	0	0	0	0	0	0	52		
Azerbaijan	0	0	20	0	0	18	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	38		
Belarus	0	0	0	0	0	75	0	0	0	75		0	0	0	0	0	0	0	0	0	0	0	75		
Brazil	0	0	0	0	0	0	38	0	0	38	38	2	0	0	0	0	0	0	0	0	200	200	40	47	
Canada	0	0	87.5	212	411	428	0	0	0	1138.5	1139	32	177	0	180	0	0	0	0	0	389	389		1528	
Chile	0	0 25	0	0 13	0 13	0	38 0	0	0	38 69	0 69	0	0	0	0	0 2	0	0	0	0	30	30	38 99	0	Profile as calculated
China NSFC+MSTC	0	25	18	0	0	0		0	0	38	09	0	0	13	6	0	0	0	0	0	30	30	38		Profile as calculated
Colombia Czech Republic	22	98	0	0	0	0	38	0	0	120	113	16	33	26	1	0	0	0	0	0	76	83			As calculated total, 100k/year 2003-2006
Denmark	0	0	38	0	0	0	0	0	0	38	242	0	0	10	0	0	0	0	0	0	10	49		291	As calculated total, 100k/year 2003-2000
France IN2P3	0	730	520	912.5	62.5	710	0	0	0	2935	2935	569	0	116	370	145	155	0	0	0	1355	1241	4290	4176	
France CEA	0	300	712	13	13	0	0	0	0	1038	1001	21	30	0	0	0	55	273	0	0	379	379		1380	
Georgia	0	0	0	0	25	13	0	0	0	38	38	0	0	0	0	0	0	0	0	0	3,,	0	38	38	
Germany BMBF	1992	0	0	0	458	0	2	0	0	2452	2452	430	368	0	0	0	0	0	0	0	798	798		3250	
Germany DESY	0	0	0	0	38	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	38	0	
Germany MPI	122	290	0	100	58	0	0	0	0	570	570	61	51	82	2	0	0	0	0	0	196	191		761	
Greece	0	0	0	0	75	46	ő	ő	0	121	121	0	0	0	0	0	52	0	0	ő	52	52		173	
Israel	0	0	37	38	288	0	0	0	0	363	363	6	128	0	0	0	0	0	0	0	134	134		497	
Italy	80	350	80	160	151	0	2288	0	0	3109	3418	14	393	323	267	253	0	0	0	0	1250	1233		4651	
Japan	0	0	1438	229	750	0	0	0	0	2417	2417	0	0	212	400	0	0	0	0	0	612	612	3029	3029	
Morocco	0	0	12	13	0	0	13	0	0	38	38	0	0	0	1	0	0	3	0	0	4	9	42	47	
Netherlands	0	0	25	1107	25	0	0	0	0	1157	1157	22	34	101	41	13	0	0	0	0	211	211	1368	1368	
Norway	0	187	18	25	41	40	0	0	0	311	311	22	33	21	4	0	0	0	0	0	80	80	391	391	Profile (A) changed as in letter RCN 24.9.03
Poland	0	0	25	25	46	0	0	0	0	96	75	3	0	0	0	0	0	0	0	0	3	19	99	94	
Portugal	0	0	15	12	21	2	0	0	0	50	155	0	0	0	73	0	24	13	0	0	110	110	160	265	
Romania	0	15	0	37	0	0	0	0	0	52	52	0	0	17	16	0	0	0	0	0	33	33		85	All In-kind
Russia	0	0	0	0	0	0	263	0	0	263	1381	36	12	3	0	51	0	0	0	0	102	614		1995	
JINR	0	0	12	0	0	25	0	0	0	37	397	3	76	58	0	2	0	13	0	0	152	263		660	
Serbia	0	163	0	137	0	0	0	0	0	300	0	0	0	0	0	0	0	0	0	0	0	0	300	0	
Slovak Republic	0	0	15	15	1	0	0	0	0	31	39	5	0	0	0	0	0	0	0	0	5	14			
Slovenia	0	0	12	13	35	61	0	0	0	121	121	0	0	0	0	19	0	12	0	0	31	31			
Spain	0	0	446	258	38	0	0	0	0	742	738	58	54	242	13	0	0	0	0	0	367	367	1109	1105	
Sweden	0	441	213	157	0	0	0	0	0	811	811	45	131	0	0	135	0	0	0	0	311	311	1122	1122	
Switzerland	0	1213	225	12	13	12	0	0	0	1475	1475	21	61	0	0	144	0	0	0	0	226	226	1701	1701	
Taipei	0	134	59	18	13	0	0	0	0	224	224	10	42	27	12	4	0	0	0	0	95	95		319	
Turkey	0	0	25	25	25	0	0	0	0	75		0	0	0	0	0	0	0	0	0	474	47.4	75	75	
United Kingdom	0	0	613	433	322	1222	0	0	0	2590	2590	137	195	121	21	0	0	0	0	0	474	474		3064	
US DOE + NSF	078	1830	232	723 0	883	0	173	0	0	3841 5501	6129 8927	156	914	778 0	0	435	0	0	0	0	2283	2308 1243		8437	
CERN	978	4523	0	U	0	0	0	U	0	5501	894/	294	949	U	U	0	U	U	U	U	1243	1243	6744	10170	
total	3194	10311	4912	4751	3853	2842	2882	0	0	32744	40004	1973	3704	2161	1407	1203	303	314	0	0	11065	11670	43809	51674	
calculated total	9550	11900	9350	4700	100	4400				40000	4	2510	2945	4035	1645	535				0	11670	0			
									%	82									94	6	95				
Actual payments	8415	4490	3690	5940	6962	10503				40000		1126	1007	1044	4207	1941	3026				12351				
* *						-7661				-7257	ı I	847	2697	1117							-1286				
Income-actual payments	-5221	5821	1222	-1190	-5110	-/661				-1257	l	847	269 /	111/	-2800	-738 -	2123				-1286				

balance cumul.

		Construction	n MoU obligat	tions (kCHF)		1 [CC and	C&I accepte	d (kCHF)	Grand	Part no	ot vet	Additional
		detec	ctors		1 [•		total	pledged		contributions	
Funding	total	remaining	remaining	remaining	total	1 [total	remaining	total	committed			(CtC-2)
Agency	paid	deliverables	deferrals	contrib.	CMoU		paid	contrib.	committed	(CORE-CC-C&I)	CC	C&I	
		•	•						-				
Argentina	200				200		75		75	275			
Armenia	195				195	1 [16	29	45	240	10	11	
Australia	2145			350	2495	1 [357		357	2852			
Austria	395	105	50		550	1 [80		80	630			
Azerbaijan	100				100	1 [38		38	138		4	
Belarus	200				200	1 [75		75	275		10	
Brazil	160			25	185	11	3	38	41	226	7	14	
Canada	13575			1500	15075	1 1	2090		2090	17165			
Chile		180		100	285	11		38	38	323			
China NSFC+MSTC	1575				1575	1 1	141		141	1716			
Colombia				100	100	1		38	38	138			
Czech Republic	1610		35		1645	1	316		316	1961			
Denmark	3020	280			3300	1	58		58	3358	243	121	
Finland	100	200			100	1				100		121	
France IN2P3	39080				39080	1	5891		5891	44971			
France CEA	13679				13679	1 1	1667	273	1940	15619			
Georgia	100				100	1	38	273	38	138		4	
Germany BMBF	32568				32568	1 1	4529	2	4531	37099			
Germany DESY	100				100	1 1	38		38	138			
Germany MPI	7545				7545	┪┟	1093		1093	8638			
Greece	1725				1725	1 }	261		261	1986			-
	4755	20		250	5035	┨	739		739	5774			
Israel		30	1925	250	45110	┨	4000	2200		51398	292	70	
Italy	43185		1925	600		4 ∤		2288	6288		292	58	
Japan	31575			600	32175	4 ∤	4362	1.0	4362	36537		10	
Morocco	243			113	355	┦ }	26	16	42	397	5	10	
Netherlands	12115				12115	11	1934		1934	14049	-		
Norway	4120				4120	١,	581		581	4701			
Poland	965				965	11	123		123	1088			
Portugal	1960	120	100		2180	11	326	13	339	2519	105	2	
Romania	550				550	11	140		140	690			
Russia	15920			2335	18255]	1496	263	1759	20014	1232		
JINR	7360	80		440	7880		508	13	521	8401	471	74	
Serbia							300		300	300			
Slovak Republic	550				550		82		82	632			
Slovenia	1540				1540		171	12	183	1723			
Spain	9775				9775		1706		1706	11481			
Sweden	10800				10800		1691		1691	12491			
Switzerland	17725	780			18505	IJ	2372		2372	20877			
Taipei	3000				3000		445		445	3445			
Turkey	350				350		75		75	425		10	
United Kingdom	34100				34100		4387		4387	38487			
US DOE+NSF	76590	695	1983	1467	80735	П	7527	173	7700	88435			
CERN	58245	1270			59515	П	9300		9300	68815			4400
		•	•										
TOTAL	453495	3540	4093	7280	468412] [59057	3196	62253	530665	2365	318	4400
		•	•	•									
			of which for	CtC	-5918	Ī			5918				0
					•								
Available for payments			Total baseline	462495	ĪΓ	RRB accept	ted CtC(1)	68170	RRB accepted CtC (2)			4400	
F.,						1 L	ер			- Interpretation	(-)		
Notes											Grand	total	535065
											- unu		222000

1. Column 'Total Paid' in Construction MoU is renormalized, includes also the deferral contributions made so far

Column Total Paid' in Construction MoU is renormalized, includes also the deferral contributions made so far
 Total CMoU refers to updated CORE construction figures (March 2008)
 Original TDR detector staged for 21 MCHF of which < 14.5 MCHF (deferrals) can be used for covering cost over-runs
 Sharing between BMBF/MPI and RF/JINR based on CORE MoU
 CEA has contributed 1 MCHF to CF over and above its original MoU share (not shown here)
 Risk of missing contributions in CF is 4.7 MCHF (Russia&JINR 3.0 MCHF, Canada 1.5 MCHF, Morocco& other 0.2 MCHF)
 Remaining US C&I contribution of 4.5 MCHF is agreed on a best effort basis