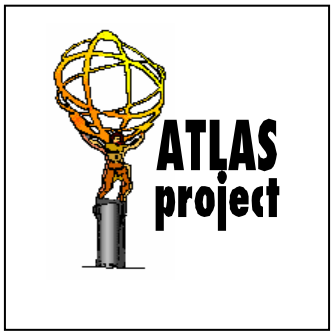

CERN-RRB-2006-028

ATLAS Resources Review Board, April 25, 2006

For RRB to take note

Proposals for In-Kind Contributions and Status of the ATLAS Common Projects and Construction Completion

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to take note of the overall status of the ATLAS Common Projects and Construction Completion (Category-A).

The present document has two parts. The first concerns proposals for new in-kind contributions to the Common Projects (CP) and Construction Completion Category-A (CC-A) items for RRB approval. The second part gives the present status of the contributions made to CP and CC-A. The CP items are described in the construction MoU (RRB-D 98-44 rev.) and the CC-A items in the ATLAS Completion Plan (CERN-RRB-2002-114, Annex 1). The RRB is invited to take note of the overall status.

1. Proposals for New In-Kind Contributions

PROPOSAL ELEMENTS

- Being Finalized
- Adjustments

There are no proposals for new in-kind contributions. There are no adjustments to approved in-kind contributions.

2. Status of CP and CC-A Contributions

STATUS OF COMMON PROJECT CONTRIBUTIONS

- General Description
- Annex 1: Global Summary
- Annex 2: List of In-Kind Contributions to CP&CC

The ATLAS Management invites the RRB to **take note** of the status of the ATLAS Common Project and Construction Completion (Category-A) contributions.

The ATLAS Common Projects (CP) are financed by contributions from the Funding Agencies in proportion to their commitments to deliverables to system/sub-detector construction with a minimum cash contribution of 100 kCHF per collaborating institution to the ATLAS baseline construction budget.

The CP contributions are calculated on the basis of the expected total contributions by the Funding Agencies to ATLAS (c.f. Annex 8 of the Memorandum of Understanding, ATLAS RRB-D 98-44 rev.).

ATLAS CP contributions are made either in kind or by cash contributions to the Common Fund, the latter one including the minimal cash contribution in form of the membership fee covering the time period of 1996 – 2003.

The Construction Completion for common items (CC-A) is to be financed by the Funding Agencies in proportion to their MoU commitments to deliverables to system/sub-detector construction. The list of these common items is provided in the approved ATLAS Completion Plan (CERN-RRB-2002-114, Annex 1). These costs amount to 35.6 MCHF. To date, new commitments over and above those to the CP add up to 31.1 MCHF. The funding of the CC-A includes a minimum cash contribution of 37.5 kCHF per collaborating institution. This represents an extended annual membership fee for three years from 2004 to 2006, as approved by the RRB in October 2002.

The attached Table (**Annex 1**) shows the status of the committed CP and CC-A contributions as of **February 28, 2006**, including advance cash contributions. The in-kind contributions already allocated are listed by Funding Agency in **Annex 2**.

Status of Contributions to Common Projects and Construction Completion by Funding Agency

Current commitments to CP baseline and CC-A (in kCHF)

			actual situtation on 28.02.2006					**new in-kind proposals**		
Funding Agency	original CP committed	current CC-A committed	in-kind contrib.	cash contrib.	m.s. contrib.	**total contrib.**	% of CP+CC-A committed	in-kind contrib.	**total contrib.**	% of CP+CC-A committed
Armenia	100	38	0	0	100.0	**100.0**	72%	0	**100.0**	72%
Australia	1100	75	250	300	250.0	**800.0**	68%	0	**800.0**	68%
Austria	250	52	200	14	125.0	**338.5**	112%	0	**338.5**	112%
Azerbaijan	100	38	0	0	120.0	**120.0**	87%	0	**120.0**	87%
Belarus	200	75	0	0	192.5	**192.5**	70%	0	**192.5**	70%
Brazil	100	38	0	0	75.0	**75.0**	54%	0	**75.0**	54%
Canada	6600	1139	3360	635	875.0	**4869.5**	63%	0	**4869.5**	63%
China NSFC+MSTC	440	69	0	31	125.0	**156.0**	31%	0	**156.0**	31%
Czech Republic	600	120	315	7	412.5	**734.5**	102%	0	**734.5**	102%
Denmark	1400	38	200	1100	137.5	**1437.5**	100%	0	**1437.5**	100%
Finland	100		0	0	100.0	**100.0**	100%	0	**100.0**	100%
France IN2P3	17000	2935	12465	5805	750.0	**19020.0**	95%	0	**19020.0**	95%
France CEA*	5800	1038	5420	1280	125.0	**6825.0**	100%	0	**6825.0**	100%
Georgia	100	38	0	0	78.1	**78.1**	57%	0	**78.1**	57%
Germany BMBF	14200	2452	14115	1321	1237.5	**16673.5**	100%	0	**16673.5**	100%
Germany MPI	3300	570	2175	1612	125.0	**3912.0**	101%	0	**3912.0**	101%
Greece	750	113	260	0	225.0	**485.0**	56%	0	**485.0**	56%
Israel	2100	363	1000	300	375.0	**1675.0**	68%	0	**1675.0**	68%
Italy	19800	3051	18810	160	1500.0	**20470.0**	90%	0	**20470.0**	90%
Japan	14000	2417	11800	1351	1916.0	**15067.0**	92%	0	**15067.0**	92%
Morocco	150	38	0	0	62.5	**62.5**	33%	0	**62.5**	33%
Netherlands	6700	1157	7782	0	250.0	**8032.0**	102%	0	**8032.0**	102%
Norway	1800	311	1150	487	243.0	**1880.0**	89%	0	**1880.0**	89%
Poland	400	75	140	60	262.5	**462.5**	97%	0	**462.5**	97%
Portugal	900	50	800	88	127.3	**1014.8**	107%	0	**1014.8**	107%
Romania	250	52	135	30	137.5	**302.5**	100%	0	**302.5**	100%
Russia#	8000	268	4230	600	712.5	**5542.5**	67%	0	**5542.5**	67%
JINR	2300	38	1800	0	112.5	**1912.5**	82%	0	**1912.5**	82%
Serbia	0	300	163	100	37.5	**300.5**	100%	0	**300.5**	100%
Slovak Republic	200	31	50	55	125.0	**230.0**	100%	0	**230.0**	100%
Slovenia	660	121	0	600	125.0	**725.0**	93%	0	**725.0**	93%
Spain	4600	742	4300	629	375.0	**5304.1**	99%	0	**5304.1**	99%
Sweden	4700	811	1240	2967	550.0	**4757.3**	86%	0	**4757.3**	86%
Switzerland	8500	1475	9600	276	250.0	**10125.5**	102%	0	**10125.5**	102%
Taipei	1320	224	0	1291	125.0	**1415.5**	92%	0	**1415.5**	92%
Turkey	200	75	0	0	262.5	**262.5**	95%	0	**262.5**	95%
United Kingdom	15000	1368	2850	10237	1625.0	**14711.5**	90%	0	**14711.5**	90%
US DOE + NSF	35500	3841	15150	16781	4125.0	**36055.7**	92%	0	**36055.7**	92%
CERN#	27400	5501	7860	23930	125.0	**31914.5**	97%	0	**31914.5**	97%
total	206620	31137	127620	72044	18476.9	**218140.5**	92%	0	**218140.5**	92%

Original C.P obligations as defined in RRB-D 98-44 rev
C.C-A = Completion Costs for Common Items. Currently committed at 31 MCHF, over & above original C.P values
*** Revised CP obligation following CEA withdrawal from TDAQ (Oct 2000 RRB)**
 # Revised CP contributions resulting from the CERN-Russia '5+5' decision in Oct 2000

In-kind Contributions to ATLAS Common Projects and Construction Completion (Category A) by Funding Agency as of February 28, 2006

	value (kCHF)	date of RRB decision
Australia		
- Cu shielding (inside LAr cryostats)	250	October 1999
Austria		
- superinsulation for end-cap toroids	200	October 1999
Canada		
- signal feedthroughs for LAr end-cap cryostats (including cables)	3360	October 1997
Czech Republic		
- polyethylene moderator for ID	15	April 2001
- shielding components	300	October 2002
Denmark		
- power supply for toroid test station	200	April 1998

*) contribution to Construction Completion

France IN2P3

- design of LAr end-cap cryostats	720	April 1996
- construction of LAr end-cap cryostats	2650	October 1997
- cables for LAr barrel cr. feedthroughs	650	October 1997
- parts of LAr prox. and external cryogenics	5000	October 1999
- LAr Cryoplant integration work	550	October 2002
- additional tooling for LAr Barrel cryostat	120	October 2002
- additional tooling for LAr EC cryostat	125	October 2002
- LAr cryogenics project follow-up work	650	October 2002
- LAr cryo process control system (add. cost)*	730	October 2003
- support structures UX15*	270	October 2003
- additional work on LAr EC cryostats*	100	April 2004
- software for LAr cryo process controls*	600	October 2004
- HM traction system for Big Wheels*	300	October 2004

France CEA

- design of barrel toroid magnet	3500	October 1995
- work on B0 - coil	920	October 1996
- EB welding tool for BT coil casings	800	April 1998
- EB welding tool for BT coil casings reduction in contribution	-800	October 2001
- BT cryoring*	1 000	April 2003

Germany, BMBF

- design of LAr end-cap cryostats	240	April 1996
- short sample superconductor	600	April 1997
- 50% of superconducting cable for toroids	6800	October 1997
- construction of LAr end-cap cryostats	1325	October 1997
- elements of BT coil casings	3350	April 1998
- vacuum pumps for the toroid magnets	1000	October 2000
- elements of the BT coil casings (add. cost)*	800	October 2002

Germany, MPI

- construction of LAr end-cap cryostats	1325	October 1997
- supporting structures for cryolines	750	October 2001
- additional work on LAr EC cryostats*	100	April 2004

*) contribution to Construction Completion

Greece

- Muons B wheels support	260	October 2003

Israel

- thermal shields for ECTs	1000	April 2000

Italy, INFN

- work on B0 - coil	2450	October 1996
- 25% of superconducting cable for toroids	3400	October 1997
- winding machine for barrel toroid	3500	October 1997
- winding of BT coils	6500	April 1998
- thermal shields for BT coils	1300	April 1999
- thermal shields for BT coils, add. alloc.	250	April 2000
- engineering work for barrel toroid	800	April 2001
- dump resistors	400	October 2002
- dump resistors (add. cost)*	80	October 2002
- foam system*	130	October 2003

Japan

- design of solenoid	300	April 1996
- construction of solenoid	10600	April 1997
- solenoid power supply circuit	900	April 2004

Netherlands, NIKHEF

- vacuum vessels and part of the cold mass for end-cap toroids	6700	October 1997
- additional work on EC vacuum vessels*	1080	April 2004

Norway

- LAr storage vessels	1150	April 2000

Poland

- trucks for Feet & Rails	140	October 2002

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*) contribution to Construction Completion

Portugal

- He storage vessels	800	October 1999

Romania

- Muons B wheels support	120	October 2003
- Muons B wheels support (add. cost)*	15	October 2003

Russia

- current leads for toroid magnets	100	April 1999
- tie rods for BT coils	300	April 1999
- mechanical supports for BT test station	150	April 1999
- tie rods for BT coils, reduction of alloc.	- 100	April 2000
- BT superinsulation	200	April 2000
- ECT cold mass support rods	100	April 2000
- BT warm structure	650	April 2000
- detector support structures (Feet and Rails)	3250	October 2000
- BT warm structure (reduction in contribution)	-400	October 2001
- detector support structures (Feet and Rails) reduction in contribution	-1200	October 2001
- busbars	420	October 2002
- busbars (adjustment)	- 70	April 2003
- BT super insulation assembly	150	October 2002
- Muons B wheels support	825	October 2003
- BT superinsulation (additional material)	135	October 2004
- busbars	50	October 2004
- detector support structures (Feet and Rails)	-330	October 2004

JINR

- BT warm structure	800	April 2000
- detector support structures (Feet and Rails)	1000	October 2000
- BT warm structure (increase in contribution)	+400	October 2001
- detector support structures (Feet and Rails) reduction in contribution	-400	October 2001

Serbia

- shielding disks and supports*	165	April 2003

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*) contribution to Construction Completion

Slovak Republic

- LAr cryogenics filter boxes	50	October 2003

Spain

- vacuum vessels for the BT coils	5300	October 1998
- steel for vacuum vessels reduction of contribution	- 1000	April 2000

Sweden

- steel for vacuum vessels	1000	April 2000
- surveying support	240	April 1999

Switzerland

- 25% of superconducting cable for toroids	3400	October 1997
- elements of BT coil casings	5000	April 1998
- elements of BT coil casings (add. cost)*	1200	October 2002

United Kingdom

- design of end-cap toroid magnets	1250	October 1995
- proximity cryogenics for barrel toroid test station	1700	October 1998
- proximity cryogenics test station (adjustment)	- 100	April 2003

US

- design of LAr barrel cryostat	1960	April 1996
- construction of LAr barrel cryostat (re-evaluation of CORE contribution after tendering in autumn 1998)	5000	October 1997
- signal feedthroughs for LAr barrel cr.	3530	October 1997
- high voltage feedthroughs for LAr barrel and end-cap cryostats	660	October 1997
- engineer for central magnet project team	400	October 1999
- parts of LAr prox. and external cryogenics	1500	October 1999
- extension of supply for LAr cryogenics	600	October 2000
- TDAQ processors	1500	April 2004

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*) contribution to Construction Completion

CERN

- design of infrastructure elements	1900	April 1998
- current leads for toroid magnets	100	April 1999
- tie rods for BT coils	300	April 1999
- mechanical supports for BT test station	150	April 1999
- barrel toroid test station mechanics	860	October 1999
- tie rods for BT coils (increase of allocation)	100	April 2000
- ECT cold mass support rods	100	April 2000
- BT warm structure	750	April 2000
- magnet and safety controls	3500	April 2003
- proximity cryogenics test station (adjustment)	100	April 2003

*) contribution to Construction Completion

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