

CERN-RRB-2009-023

ATLAS Resources Review Board, April 28, 2009

Closing Report of the ATLAS Baseline and Cost to Completion Budgets



CERN-RRB-2009-023

ATLAS Resources Review Board, April 28, 2009

For RRB approval

Part 1

Closing Report for 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 <u>approve</u> <i>the final baseline and cost to completion payments for 2008.

he RRB approved the year 2008 baseline budget for construction activities in October 2007, amounting at that time to 4.8 MCHF in commitments and 3.0 MCHF in payments (CERN-RRB-2007-071). Neither Commissioning and Integration (C&I) nor Construction Completion (CC) payments were planned at that time as these activities were completed in 2007. Updates were provided in April 2008 (CERN-RRB-2008-033) and in October 2008 (CERN-RRB-2008-120).

| BASELINE BUDGET |
|------------------------|
| REPORT ELEMENTS |
| 🗁 Activity Description |
| 🗁 Budget Evolution |
| 🗁 Table References |
| |

1. Baseline Budget for 2008

The baseline budget estimates for 2008 were updated in April and October 2008, respectively. Final baseline budget figures in 2008 amounted to 3.7 MCHF for commitments and 1.8 MCHF for payments. The decrease in the sub-systems (TDAQ) by 1 MCHF w.r.t original plans reflects the delay in

starting the machine in the Autumn of 2008.

Table 1 shows the 2008 ATLAS baseline budget evolution, historically including also CC-A in the Common Projects part.

| | Sub-systems | | Com Proj | mon ects | 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 | |
| 2008 Update (Nov'08) | 2.0 | 2.1 | 0.3 | 0.3 | 2.2 | 2.4 | |
| 2008 Actual | 3.7 | 1.8 | - | - | 3.7 | 1.8 | |

| Table 1. Evolution o | f the 2008 ATLAS Baselin | e and CC-A Budget (MCHF) |
|----------------------|--------------------------|--------------------------|

Details by system/sub-detector and Funding Agencies are presented in **Tables 2 and 3**. It should be noted that the commitments for TDAQ in Table 2 complete the commitments as part of the construction MoU for the related Funding Agencies, including the staged or deferral items.

Table 4 shows the income received to the Common Fund (and CC-A) as well as payments made during the year 2008. It is observed that the income amounted to 5.3 MCHF, thus leaving a deficit of 4.8 MCHF in terms of planned contributions (see CERN-RRB-2008-120, Table 2).

Details about the status of contributions made to the Common Projects by Funding Agencies can be found in **Annex 3** (previously reported in document CERN-RRB-2008-080).

| C & I | BUDGET | |
|-------|--------|--|

2. Commissioning and Integration (C&I) for 2008

- REPORT ELEMENTS
- Activity Description
- Payment Report
 Table References

ended in 2007. Some open commitments dating back to 2007 or earlier, were all settled in 2008, as reported in November 2008 (CERN-RRB-2008-120, Part 1). All

The Commissioning and Integration (C&I) activities

payments are within the endorsed Completion Plan (CERN-RRB-2002-114 rev/Annex).

Table 5 shows the status of received Category-1 contributions from Funding Agencies in 2008. The received contributions amounted to 1.6 MCHF. The payments of past, remaining open commitments were 429 kCHF.

| CC BUDGET |
|----------------------|
| REPORT ELEMENTS |
| Activity Description |
| 🗁 Payment Report |
| 🗁 Table References |

from past years.

3. Construction Completion (CC-B) for 2008

The Construction Completion Category-B (CC-B) activities ended in 2007. All payments were within the endorsed Completion Plan (CERN-RRB-2002-114 rev./Annex). There were no outstanding commitments

During the year 2008, a total of 299 kCHF were received from Funding Agencies as Category-1 income. The details are shown in **Table 6**.

CORE and CC-A Contributions to ATLAS Detector Construction during 2008 by Funding Agency

| 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 | 0 | 180 |
| China NSFC+MSTC | | | | | | 0 | 0 |
| Colombia | | | | | | 0 | 0 |
| 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 | | | | | | 0 | 0 |
| Germany MPI | | | | | | 0 | 0 |
| Greece | | | | | | 0 | 0 |
| Israel | | | | | | 0 | 0 |
| Italy | | | | | | 0 | 0 |
| Japan | | | | | | 0 | 0 |
| Morocco | | | | | | 0 | 0 |
| Netherlands | | | | | | 0 | 0 |
| Norway | | | | | | 0 | 0 |
| Poland | | | | | | 0 | 0 |
| Portugal | | | | | 150 | 0 | 150 |
| Romania | | | | | | 0 | 0 |
| Russia | | | | | | 0 | 0 |
| JINR | | | | | | 0 | 0 |
| 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 | 0 | 845 |
| CERN | | | | | 1570 | 0 | 1570 |
| | | | | | | | |
| from past Common Fu | nd contrib | utions | | | | 0 | |
| | | | | | - | | |

(Commitments, in kCHF)

| total sub-detector | - | - | - | - | 3,675 | - | 3,675 |
|--------------------|---|---|---|---|-------|---|-------|
| | | | | | | | |

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 | | | | | | 0 | 0 |
| Austria | | | | | 135 | 0 | 135 |
| Azerbaijan | | | | | | 0 | 0 |
| Belarus | | | | | | 0 | 0 |
| Brazil | | | | | | 0 | 0 |
| Canada | | | | | | 0 | 0 |
| Chile | | | | | 180 | 75 | 255 |
| China NSFC+MSTC | | | | | | 0 | 0 |
| Colombia | | | | | | 69 | 69 |
| Czech Republic | | | | | | 0 | 0 |
| Denmark | | | | | 350 | 0 | 350 |
| Finland | | | | | | 0 | 0 |
| France IN2P3 | | | | | | 0 | 0 |
| France CEA | | | | | | 0 | 0 |
| Georgia | | | | | | 0 | 0 |
| Germany BMBF | | | | | | 0 | 0 |
| Germany DESY | | | | | | 0 | 0 |
| Germany MPI | | | | | | 0 | 0 |
| Greece | | | | | | 0 | 0 |
| Israel | | | | | 40 | 250 | 290 |
| Italy | | | | | | 2288 | 2288 |
| Japan | | | | | | 600 | 600 |
| Morocco | | | | | | 50 | 50 |
| Netherlands | | | | | | 0 | 0 |
| Norway | | | | | | 0 | 0 |
| Poland | | | | | | 0 | 0 |
| Portugal | | | | | | 0 | 0 |
| Romania | | | | | | 0 | 0 |
| Russia | | | | | | 197 | 197 |
| JINR | | | | | | 260 | 260 |
| Serbia | | | | | | 0 | 0 |
| Slovak Republic | | | | | | 0 | 0 |
| Slovenia | | | | | | 0 | 0 |
| Spain | | | | | | 0 | 0 |
| Sweden | | | | | | 0 | 0 |
| Switzerland | | | | | 100 | 0 | 100 |
| Taipei | | | | | | 0 | 0 |
| Turkey | | | | | | 0 | 0 |
| United Kingdom | | | | | | 0 | 0 |
| US DOE+NSF | | | | | 845 | 1447 | 2292 |
| CERN | | | | | 195 | 0 | 195 |
| from past Common Fu | nd contril | outions | | | | 0 | |
| missing contributions t | o meet pla | anned pr | oject pay | ments | | - | |
| total sub-detector | - | - | - | - | 1,845 | 5,265 | 7,110 |

CORE Common Project Contributions during 2008 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. | | |
| | 8 | | | | P | | | | |
| Argentina | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Armenia | 0 | 0 | 29 | 29 | 0 | 0 | 0 | | |
| Australia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Austria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Azerbaijan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Belarus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Brazil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Canada | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Chile | 0 | 0 | 75 | 75 | 0 | 0 | 0 | | |
| China NSFC+MSTC | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Colombia | 0 | 0 | 69 | 69 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| France CEA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Georgia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Germany BMBF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Germany DESY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Germany MPI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Greece | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Israel | 0 | 250 | 0 | 250 | 0 | 0 | 0 | | |
| Italy | 0 | 2288 | 0 | 2288 | 0 | 0 | 0 | | |
| Japan | 0 | 600 | 0 | 600 | 0 | 0 | 0 | | |
| Morocco | 0 | 50 | 0 | 50 | 0 | 0 | 0 | | |
| Netherlands | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Norway | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Poland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Portugal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Romania | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Kussia | 0 | 197 | 0 | 197 | 0 | 0 | 0 | | |
| | 0 | 260 | 0 | 260 | 0 | 0 | 0 | | |
| Serbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Slovak Republic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Slovenia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Spann | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Sweuen Sweitzenland | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Switzeriand | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Taipei | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Turkey United Kingdom | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| US DOF+NSF | 0 | 1447 | 0 | 1447 | 0 | 0 | 0 0 | | |
| CFRN | 0 | 0 | 0 | 144/ | 0 | 0 | 0 0 | | |
| UENIV | 0 | 0 | U | U | 0 | U | U | | |
| Common Fund | 0 | 0 | 0 | 0 | | | | | |
| missing contributions to | o meet planne | ed project pay | ments | - | | | | | |
| total | - | 5,092 | 173 | 5,265 | - | - | - | | |
| | | | | | | | | | |

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

| L | | | | | | | | | |
|---------------------|--------|----------|----------------|----------|---------|----------|------|--------|-------|
| Funding Agency | Cat. A | C | ategory | y B iten | n contr | ibutions | | Total | Total |
| | items | Pixel SC | г т r t | IDGen | LAr | TileC | Muon | Cat. B | A+B |
| | | | | | - | | | | · |
| Argentina | | | | | | | | 0 | 0 |
| Armenia | | | | | | | | 0 | 0 |
| Australia | | | | | | | | 0 | 0 |
| Austria | | | | | | | | 0 | 0 |
| Azerbaijan | | | | | | | | 0 | 0 |
| Belarus | | | | | | | | 0 | 0 |
| Brazil | | | | | | | | 0 | 0 |
| Canada | | | | | | | | ů 0 | 0 |
| China NSEC+MSTC | | | | | | | | 0 | 0 |
| Czoch Popublic | | | | | | | | 0 | 0 |
| Donmonly | | | 50 | | | | | 50 | 50 |
| Denmark E Diaba | | | 30 | | | | | 50 | 50 |
| France IN2P3 | 10 | | | | | | | 0 | 0 |
| France CEA | 13 | | | | | | | 0 | 13 |
| Georgia | | | | | | | | 0 | 0 |
| Germany BMBF | | | | | | | | 0 | 0 |
| Germany DESY | | | | | | | | 0 | 0 |
| Germany MPI | | | | | | | | 0 | 0 |
| Greece | | | | | | | | 0 | 0 |
| Israel | | | | | | | | 0 | 0 |
| Italy | | | | | | | | 0 | 0 |
| Japan | | | | | | | | 0 | 0 |
| Morocco | | | | | | | | 0 | 0 |
| Netherlands | | | | | | | | 0 | 0 |
| Norway | | | | | | | | ů 0 | 0 |
| Poland | | | | | | | | 0 | 0 |
| Portugal | | | | | | | | 0 | 0 |
| Demonio | | | | | | | | 0 | 0 |
| Romania Decesie | | | | | | | | 0 | 0 |
| Kussia | | | | | | | | 0 | 0 |
| JINK | | | | | | | | 0 | 0 |
| Serbia | | | | | | | | 0 | 0 |
| Slovak Republic | | | | | | | | 0 | 0 |
| Slovenia | | | | | | | | 0 | 0 |
| Spain | | | | | | | | 0 | 0 |
| Sweden | | | | | | | | 0 | 0 |
| Switzerland | | | | | | | | 0 | 0 |
| Taipei | | | | | | | | 0 | 0 |
| Turkey | | | | | | | | 0 | 0 |
| United Kingdom | | | | | | | | 0 | 0 |
| US DOE + NSF | 1572 | | | | | | | 0 | 1572 |
| CERN | | | | | | | | 0 | 0 |
| | | | | | | | | | |
| total contributions | 1,585 | 0 0 | 50 | 0 | 0 | 0 | 0 | 50 | 1,635 |
| | | | | | • | | | | |
| other income* | | | | | | | | 0 | 0 |
| | 1 | | | | | | | | |
| total payments | | | | 231 | 4 | | 194 | 429 | 429 |
| | | | | | | | | | |
| balance | | | | | | | | | 1,206 |

Notes:

*Funds available either in baseline or by using deferral funds or contribution advancements Cost sharing based on CORE contributions 4/2/2009

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

| Funding Agency | | Cat | tegory | B iten | n contr | ibutions | | Total |
|---------------------|-------|----------|--------|--------|---------|----------|------|--------|
| 000 | Pixel | SCT | TRT | IDGen | LAr | 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 | | | 10 | | | | | 10 |
| 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 | | | | | | | | 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 | 0 | 0 | 10 | 0 | 216 | 13 | 60 | 299 |
| | | r — | r — | | | | | |
| other income* | | | | | | | | 0 |
| | | <u> </u> | 1 | | 1 | | | 6 |
| total payments | | | | | | | | 0 |
| halamaa | | | | | | | | 200 |
| Dalance | | | | | | | | 299 |

Notes:

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



CERN-RRB-2009-023

ATLAS Resources Review Board, April 28, 2009

For RRB approval

Part 2

Summary of ATLAS Baseline and Cost to Completion Budgets (1995 – 2008)

Introduction

The ATLAS management, supported by the ATLAS Executive and Collaboration Boards, kindly invites the RRB to <u>approve</u> <i>the summary report for the 1998 - 2008 baseline and cost to completion budgets.

he ATLAS Construction MoU (RRB-D 98-44 rev.) was signed in 1998 by Funding Agencies. The approved construction budget at the time was 474.7 MCHF and pledged contributions 472.2 MCHF, respectively, in 1995 prices.

In 2002, the RRB endorsed the financial plan to complete the initial detector (CERN-RRB-2002-114 rev.). The Cost to Completion (CtC) plan included two components, Commissioning and Integration (C&I) and Construction Completion (CC), amounting to 68.2 MCHF in 2002 prices. In 2006, following announced delays, the recognized CtC expenditures were further extended by 4.4 MCHF in 2006 prices (CERN-RRB-2006-069 and CERN-RRB-2006-071).

As reported in the November 2008 RRB (CERN-RRB-2008-120), all initial construction activities were completed by early 2008 w.r.t the CtC plan endorsed by the RRB in 2002, except for the TDAQ. Following the start-up of the LHC machine in September 2008 and in consultation with the CERN management, the initial construction period of ATLAS is declared as completed by December 31, 2008.

| BASELINE BUDGET |
|-----------------|
| REPORT ELEMENTS |
| CORE Reporting |
| CORE Summary |
| 🗁 Outstanding |
| Contributions |
| |

1. Baseline Budgets (1995 – 2008)

The reporting of the ATLAS project in the RRB started in 1995 (RRB-D 95-1). The expenditure plan was endorsed by the CORE Review in 1995 and the costing was based on material costs, excluding taxes, R&D, prototyping, and institute infrastructure. Exchange rates were fixed (see ATLAS Cost Review Estimate Version 7, dated January 31,

1998). Regular reporting of CORE contributions per Funding Agency started in the RRB in 1998.

Final expenditures for 1997 were approved by the RRB in April 1998 (ATLAS RRB-D 98-49) and this reporting format has been maintained ever since.

Table 7 shows the registered contributions per Funding Agency and sub-system (for a previous update, see Table 5 in CERN-RRB-2008-033). The total received baseline contributions amount to 454.3 MCHF, excluding CtC and deferral contributions (reported in Sections 2 and 3 of this document). The share of sub-system deliverables is 248.5 MCHF and Common Projects contributions (including annual member fees up to 2003) 205.8 MCHF, respectively. For accounting purposes, 454.3 MCHF will be declared as the initial, baseline capital value of ATLAS.

It should be noted that for some Funding Agencies, sub-system deliverables reported differ from the original estimates given in the Construction MoU (RRB-D 98-44 rev., Annex 8.A). There are two reasons for this.

First, during the nearly 15-year construction period there were changes in the scope of chosen technologies and sharing of responsibilities among participating institutes, also including new ones joining ATLAS since 1998. This is particularly visible in the TDAQ where new institutes joined and some original institutes left. Moreover, as part of the CtC plan approved in 2002 by the RRB, some 12 MCHF were intended to be put aside for deferral purposes (see Section 3) thus temporarily reducing the scope of the initial TDAQ system. Some 2.5 MCHF worth of original CORE TDAQ deliverables remain to be installed at ATLAS by the related institutes and supporting Funding Agencies. In addition, some Funding Agencies contributed to the Common Fund beyond their original CORE sharing.

Second, the initial CORE values were in 1995 prices. No indexation was applied in the annual reporting, although the Construction MoU acknowledged its use for monitoring purposes. As a consequence, the book keeping value of deliverables for a given Funding Agency may differ from the original CORE values. Details of such variations can be provided upon request.

It should also be noted that the recognized Common Fund contributions cover the remaining open contractual commitments left from 2007 or earlier. As of January 1, 2009, the remaining open commitments amount to 1.3 MCHF. These result from contracts placed by the Common Fund as part of approved in-kind contributions.

As noted in Part 1 of the present document, the outstanding Common Fund contributions amount to 4.8 MCHF. These include Russia and JINR (2.6 MCHF), Canada (1.5 MCHF; pledged), Australia (0.4 MCHF; pledged) and others (0.3 MCHF). At risk is 2.7 MCHF. More detailed information about due contributions can be found in **Annex 2**.

2. Cost to Completion (2002 – 2008)

| | CTC BUDGET |
|----|-----------------|
| RΕ | PORT ELEMENTS |
| | CtC Description |
| | CtC Summary |
| | Outstanding |
| | Contributions |

The RRB accepted the additional Cost to Completion (CtC) of 68.2 MCHF in 2002 (CERN-RRB-2002-114 rev.). It consisted of two components; Commissioning and Integration (C&I), budgeted at 20.9 MCHF and Construction Completion (CC) at 47.3 MCHF, respectively.

At the time, Funding Agencies were able to commit 46.5 MCHF as firm pledges (socalled Category-1 funding). As a result, the Full Design Luminosity Detector (FDL), as defined in the Technical Proposal (CERN/LHCC/94-43) and which formed the basis of the ATLAS Construction MoU (RRB D 98-44 rev.), was reduced in scope on a temporary basis until the full amount (68 MCHF) were to be fully covered by financial pledges.

The amount of pledges received from Funding Agencies by the end of 2008 amounted to 62.2 MCHF. The total expenditures were 67.7 MCHF, splitting into 19.7 MCHF for C&I and 48.0 MCHF for CC, respectively. The funding gap was bridged using deferred funds (see Section 3).

In 2006, due to engineering changes in the project, the RRB accepted additional costs up to 4.4 MCHF (CERN-RRB-2006-069, CERN-RRB-2006-071). These costs could be covered within the present planned income plan as CERN had pledged 5.2 MCHF more than its calculated share. The additional 4.4 MCHF was thus fully covered by the contribution from CERN.

The total CtC payments therefore amounted to 72.1 MCHF.

A summary of total received CtC contributions and project payments made is provided in Annex 2.

By the end of 2008, some 0.4 MCHF remained as outstanding pledged Category-1 contributions (notably Russia). More detailed information about due contributions can be found in Annex 1.

| DEFERRAL |
|------------------------|
| FUNDING REPORT |
| <i>E L</i> E M E N T S |
| CtC Description |
| CtC Summary |
| Dutstanding |
| Contributions |

3. Deferral Funding

The RRB endorsed, as part of the additional Cost to Completion (CtC) in 2002 (CERN-RRB-2002-114 rev.), the concept of deferred funding to bridge the gap between total budgeted expenses (68.2 MCHF) and the original, firm pledges available (46.5 MCHF). It required leaving out components included in the original, FDL detector (CERN/LHCC/94-43) until the funding became available.

The RRB agreed that the collected deferral funds will be used like Common Funds and that the Funding Agencies who made the cash contributions are no longer responsible, except for the related manpower effort.

The mechanism for covering the missing pledges was to defer the delivery of selected parts of ATLAS until a later date. Following a detailed (physics) analysis, a list of deferred items was approved by the Collaboration Board in 2002. The total CORE value of the deferred components added up to ca. 30 MCHF, of which up to 14 MCHF was originally expected to be liberated in cash, if needed. In practice, the expected amount would be up to 12 MCHF and the Funding Agencies concerned would negotiate also with the sub-systems how to, over in time, restore the planned deliverables.

As more pledges were made since 2002, by the end of 2008, 9.1 MCHF worth of original CORE value was collected as deferred cash, mostly originating from the TDAQ HLT system (processors). The deferred funds have been used to manage the financing of CtC but also, due to missing contributions, the baseline (notably the Common Fund). At the end of 2008, the collected cash balance amounted to 7.7 MCHF and was used to balance the equivalent amount of due contributions and outstanding contractual commitments. Once the due contributions exceed outstanding commitments, the deferred funds will become available for the Collaboration towards completing the FDL detector.

More details concerning the collected deferral funds and their present use is summarized in **Table 8**. The received deferral funds are in addition to contributions reported in Table 7.

GLOBL SUMMARY

4. Global Summary

| REPORT ELEMENTS |
|--------------------|
| 🗁 Baseline summary |
| CtC summary |
| 🗁 Summary figure |

The total contributions received from Funding Agencies, as
 well as the outstanding (pledged) amounts are shown in
 Annex 2. No indexation has been applied.

^V/ ^{Summary hgure} By the end of 2008, total baseline contributions of 457.1 MCHF have been received, including cash deferrals worth 9.1 MCHF. Some 11.3 MCHF remains to be received within the approved CORE Construction MoU framework (RRB D 98-44 rev.). The total project payments amounted to 458.7 MCHF by the end of 2008, given that 5.9 MCHF was used to offset the CtC deficit.

The received Cost to Completion (CtC) contributions amounted to 66.3 MCHF and payments 72.1 MCHF by the end of 2008.

In total, 523.4 MCHF of contributions have been received by the end of 2008 and corresponding total project payments and including outstanding commitments amount to 535.1 MCHF. The deficit is reduced using deferral funds until all due contributions are received. More details are provided in Annex 2.

Figure 1 shows the annual distribution of the total project payments since 1995 until the end of 2008, without applying any indexation (lower curve). It also shows the original, planned CORE MoU payment profile of 475 MCHF (yellow bar) and the same profile in current prices, using the CERN index applied for the LHC machine expenditures at 2% (upper curve).



Figure 1. Annual distribution of total payments (MCHF), 1995 - 2008

Total received CORE Contributions from Funding Agencies up to end of 2008 (in kCHF)

| Funding | Innor | T 4 | | | | | | | | | |
|------------------------|--------|------------|-------|-------|---------|----------|----------|----------|----------|----------|-------|
| | miller | LAr | Tile | muon | trigger | total | in-kind | cash | m.s. | total | total |
| Agency | Det. | Cal. | Cal. | cham. | /DAQ | contrib. | contrib. | contrib. | contrib. | contrib. | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Argentina | | | | | | | | | 200 | 200.0 | 200 |
| Armenia | | | 95 | | | 95 | | | 130 | 129.5 | 225 |
| Australia | 1395 | | | | | 1395 | 250 | 300 | 200 | 750.0 | 2145 |
| Austria | | | | | 150 | 150 | 200 | | 100 | 300.0 | 450 |
| Azerbaijan | | | | | | | | | 100 | 100.0 | 100 |
| Belarus | | | | | | | | | 200 | 200.4 | 200 |
| Brazil | | | 85 | | | 85 | | | 75 | 75.0 | 160 |
| Canada | 100 | 8590 | 05 | | | 8690 | 3360 | 1040 | 700 | 5100.0 | 13790 |
| Chile | 100 | 0570 | | | | 0070 | 5500 | 1010 | 700 | 210010 | 10770 |
| China NSFC+MSTC | | 370 | | 765 | | 1135 | | 340 | 100 | 440.0 | 1575 |
| Colombia | | 570 | | 105 | | 1100 | | 510 | 100 | | 1070 |
| Czech Penublic | 470 | | 500 | | 40 | 1010 | 315 | 1 | 300 | 615.0 | 1625 |
| Donmark | 900 | | 500 | | 500 | 1400 | 200 | 1100 | 100 | 1400.0 | 2800 |
| Finland | 900 | | | | 500 | 1400 | 200 | 1100 | 100 | 1400.0 | 2000 |
| Finanu Evonos IN2D2 | 1755 | 19620 | 2110 | | | 22405 | 10505 | 5026 | 600 | 17121.0 | 20626 |
| France IN2F5 | 1755 | 5715 | 2110 | 2175 | | 22495 | 10393 | 1280 | 100 | 5800.0 | 39020 |
| France CEA | | 5/15 | | 2175 | | /890 | 4420 | 1280 | 100 | 5800.0 | 13690 |
| Georgia | 7105 | 2150 | | 2000 | 20.65 | 15100 | 10015 | - | 100 | 99.6 | 100 |
| Germany BMBF | 7105 | 3158 | | 2980 | 3865 | 17108 | 13315 | 7 | 900 | 14222.1 | 31330 |
| Germany DESY | | | | | | | | | | | |
| Germany MPI | 1690 | 1722 | | 865 | | 4277 | 2075 | 1125 | 100 | 3300.0 | 7577 |
| Greece | | | 90 | 985 | | 1075 | 260 | 190 | 300 | 750.0 | 1825 |
| Israel | | | | 2565 | 375 | 2940 | 1000 | 800 | 300 | 2100.0 | 5040 |
| Italy | 4610 | 4245 | 1375 | 10885 | 4250 | 25365 | 18600 | 2288 | 1200 | 22088.0 | 47453 |
| Japan | 6845 | | | 6805 | 3775 | 17425 | 11800 | 700 | 1500 | 14000.0 | 31425 |
| Morocco | | 210 | | | | 210 | | 50 | 38 | 87.5 | 298 |
| Netherlands | 1530 | | | 3035 | 525 | 5090 | 6700 | | 200 | 6900.0 | 11990 |
| Norway | 2325 | | | | | 2325 | 1150 | 450 | 200 | 1800.0 | 4125 |
| Poland | 405 | | | | 160 | 565 | 140 | 60 | 200 | 400.0 | 965 |
| Portugal | | | 1005 | | | 1005 | 799 | 88 | 100 | 986.5 | 1992 |
| Romania | | | 300 | | | 300 | 120 | 30 | 100 | 250.0 | 550 |
| Russia | 2790 | 3950 | 811 | 2715 | | 10266 | 4385 | 865 | 613 | 5862.6 | 16129 |
| JINR | 1120 | 1495 | 1099 | 1765 | | 5479 | 1660 | 360 | 100 | 2120.0 | 7599 |
| Serbia | | | | | | | | 200 | | | |
| Slovak Republic | | 305 | 45 | | | 350 | 50 | 50 | 100 | 200.0 | 550 |
| Slovenia | 840 | 235 | | 1 | | 840 | 20 | 600 | 100 | 700.0 | 1540 |
| Snain | 1210 | 2340 | 1970 | | | 5520 | 4300 | | 300 | 4600.0 | 10120 |
| Sweden | 3080 | 1530 | 895 | | 605 | 6110 | 1240 | 3060 | 400 | 4700 1 | 10810 |
| Switzerland | 4955 | 1055 | 075 | | 1170 | 7180 | 8400 | 276 | 200 | 8875.5 | 16056 |
| Toinoi | 1000 | 700 | | | 1170 | 1700 | 0400 | 1210 | 100 | 1310.0 | 3010 |
| Turkov | 1000 | 700 | | | | 1700 | | 1219 | 200 | 200.0 | 200 |
| Inited Kingdom | 12170 | | | l | 4920 | 18000 | 2852 | 10251 | 1200 | 15003.0 | 22002 |
| United Kingdom | 12040 | 16960 | 25.00 | 9770 | 4830 | 18000 | 2832 | 10851 | 2201 | 15003.0 | 33003 |
| US DOL+NSF | 12040 | 16860 | 3560 | 8//0 | 1985 | 43215 | 15100 | 1/0/9 | 3501 | 354/9.5 | 78095 |
| CEKN | 9010 | 8610 | 3000 | 1500 | 56/5 | 21195 | /860 | 19438 | 100 | 27398.0 | 55193 |

 78345
 79485
 16940
 45810
 27905
 248485
 121146
 69581
 15055
 205782
 454267
 total sub-detector

Table 7 (Page 13)

Status of Deferral Contributions (cash and in-kind) for ATLAS by Funding Agency (in kCHF) (December 31, 2008)

| Funding Agency | Contr | ibution | | Deferra | l con | tributi | on alloc | ated to | | | Total |
|----------------------|-------|---------|---------|-------------|---------------|---------|----------|---------|------|------|----------|
| | Pixel | TDAQ | Magnets | LArCC Infra | astr. | ID | LAr | TileC | Muon | TDAQ | alloc. |
| | | | | | | 1 | 1 | | | | |
| Argentina | | | | | | | | | | | 0 |
| Armenia | | | | | | | | | | | 0 |
| Australia | | | | | | | | | | | 0 |
| Austria | | 150 | 150 | | | | | | | | 150 |
| Azerbaijan | | | | | | | | | | | 0 |
| Belarus | | | | | | | | | | | 0 |
| Brazil | | | | | | | | | | | 0 |
| Canada | | | | | | | | | | | 0 |
| China NSFC+MSTC | | | | | | | | | | | 0 |
| Czech Republic | | | | | | | | | | | 0 |
| Denmark | | 500 | 500 | | | | | | | | 500 |
| France IN2P3 | 380 | | 380 | | | | | | | | 380 |
| France CEA | | | | | | | | | | | 0 |
| Georgia | | | | | | | | | | | 0 |
| Germany BMBF | 810 | 780 | 915 | | | | | | 275 | 400 | 1590 |
| Germany DESY | | | | | | | | | | | 0 |
| Germany MPI | | | | | | | | | | | 0 |
| Greece | | | | | | | | | | | 0 |
| Israel | | | | | | | | | | | 0 |
| Italy | | 605 | | | | | | | | 605 | 605 |
| Janan | | 750 | 750 | | | | | | | | 750 |
| Morocco | | | | | | | | | | | 0 |
| Netherlands | | 325 | 325 | | | | | | | | 325 |
| Norway | | 0.20 | 525 | | | | | | | | 0 |
| Poland | | | | | - | | | | | | 0 |
| Portugal | | 50 | 50 | | | | | | | | 50 |
| Romania | | 50 | 50 | | - | | | | | | 0 |
| Russia | | | | | - | | | | | | 0 |
| IINR | | | | | | | | | | | 0 |
| Sarbia | | | | | | | | | | | 0 |
| Slovak Republic | | | | | | | | | | | 0 |
| Slovania | | | - | | | | | | | | 0 |
| Snoin | | | | | - | | | | | | 0 |
| Sweden | | | - | | | | | | | | 0 |
| Sweuen | | 2000 | 05 | 0 | n | 951 | 924 | | 140 | | 2000 |
| Toinoi | | 2000 | 93 | 0 | 0 | 631 | 854 | | 140 | | 2000 |
| Turkov | | 150 | 150 | | -+ | | <u> </u> | | | | 150 |
| I Urkey | | 150 | 150 | | | | | | | | 150 |
| United Kingdom | | 1110 | 1110 | | \rightarrow | | | | | 100 | 1110 |
| US DUE + NSF CEDN | | 100 | 1446 | | | | 7/7 | 510 | | 100 | 100 |
| ULKN | | 2950 | 1446 | 22 | 4 | L | /6/ | 513 | l | | 2950 |
| | 1 100 | 0.470 | 5.071 | 0 20 | | 051 | 1 (01 | 510 | 415 | 1105 | 10 (() |
| total contributions | 1,190 | 9,470 | 5,871 | 0 30 | 4 | 851 | 1001 | 515 | 415 | 1105 | 10,000 |

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. Some resources are provided as in-kind

4/2/2009

ACTUAL & PLANNED INCOME FOR ATLAS C&I (kCHF)

| Funding Agency | | | | | C&I | (A) | | | | | Calc. | | | | | C&I | (B) | | | | | Calc. | Invoice | Calc. | |
|--------------------------|------|------|--------------|-------------|------|------|------|------|------|-------|-------|------------|-------------|--------------|--------------|------|------|------|------|------|-------|-------|---------|---------|-------------|
| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total | Total | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | Total | Total | Total | G.Total | |
| Argentina | 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 | |
| Armenia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 13 | 7 | 18 | |
| Australia | 0 | 0 | 0 | 0 | 0 | 56 | 0 | 0 | 0 | 56 | 56 | 13 | 17 | 0 | 0 | 0 | 29 | 0 | 0 | 0 | 59 | 59 | 115 | 115 | |
| Austria | 0 | 5 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | |
| Azerbaijan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| Belarus | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | |
| Brazil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 1 | 15 | |
| Canada | 0 | 0 | 0 | 336 | 0 | 0 | 0 | 0 | 0 | 336 | 336 | 0 | 71 | 0 | 155 | 0 | 0 | 0 | 0 | 0 | 226 | 226 | 562 | 562 | |
| Chile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |) | | | | |
| China NSFC+MSTC | 0 | 7 | 8 | 5 | 0 | 0 | 0 | 0 | 0 | 20 | 20 | 0 | 10 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 22 | 22 | 42 | 42 | |
| Colombia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |) | | | | |
| Czech Republic | 2 | 9 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 31 | 31 | 14 | 33 | 22.7 | 19.3 | 0 | 0 | 0 | 0 | 0 | 89 | 89 | 120 | 120 | |
| Denmark | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 | 10 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 60 | 60 | 60 | 131 | |
| France IN2P3 | 0 | 0 | 0 | 11 | 740 | 0 | 0 | 0 | 0 | 751 | 865 | 54 | 40 | 146 | 238 | 372 | 0 | 0 | 0 | 0 | 850 | 850 | 1601 | 1715 | |
| France CEA | 0 | 0 | 0 | 0 | 245 | 0 | 13 | 0 | 0 | 258 | 295 | 0 | 0 | 0 | 0 | 0 | 265 | 0 | 0 | 0 | 265 | 265 | 523 | 560 | |
| Georgia | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | |
| Germany BMBF | 252 | 0 | 18 | 454 | 0 | 0 | 0 | 0 | 0 | 724 | 724 | 253 | 0 | 183 | 16 | 105 | 0 | 0 | 0 | 0 | 557 | 557 | 1281 | 1281 | |
| Germany DESY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Germany MPI | 0 | 44 | 69 | 54 | 0 | 0 | 0 | 0 | 0 | 167 | 167 | 36 | 34 | 45 | 44 | 1 | 0 | 0 | 0 | 0 | 160 | 165 | 327 | 332 | |
| Greece | 0 | 0 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 36 | 36 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 52 | 88 | 88 | |
| Israel | 0 | 0 | 0 | 0 | 106 | 0 | 0 | 0 | 0 | 106 | 107 | 14 | 72 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 136 | 135 | 242 | 242 | |
| Italy | 0 | 350 | 206 | 205 | 205 | 0 | 0 | 0 | 0 | 966 | 1007 | 0 | 418 | 93 | 190 | 262 | 0 | 0 | 0 | 0 | 963 | 980 | 1929 | 1987 | |
| Japan | 0 | 0 | 247 | 436 | 0 | 0 | 0 | 0 | 0 | 683 | 683 | 0 | 0 | 290 | 360 | 0 | 0 | 0 | 0 | 0 | 650 | 650 | 1333 | 1333 | |
| Morocco | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 10 | |
| Netherlands | 0 | 118 | 141 | 82 | 0 | 0 | 0 | 0 | 0 | 341 | 341 | 34 | 65 | 83 | 43 | 0 | 0 | 0 | 0 | 0 | 225 | 225 | 566 | 566 | |
| Norway | 0 | 32 | 38 | 22 | 0 | 0 | 0 | 0 | 0 | 92 | 92 | 23 | 29 | 26 | 20 | 0 | 0 | 0 | 0 | 0 | 98 | 98 | 190 | 190 | |
| Poland | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 20 | 20 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 4 | 22 | 24 | 42 | |
| Portugal | 0 | 0 | 0 | 38 | 6 | 0 | 0 | 0 | 0 | 44 | 46 | 3 | 0 | 0 | 60 | 72 | 0 | 0 | 0 | 0 | 135 | 135 | 179 | 181 | |
| Romania | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 15 | 15 | 0 | 0 | 29 | 11 | 0 | 0 | 0 | 0 | 0 | 40 | 40 | 55 | 55 | All in-kind |
| Russia | 150 | 320 | 220 | 398 | 0 | 0 | 0 | 0 | 0 | 1088 | 408 | 28 | 122 | 0 | 65 | 91 | 0 | 0 | 0 | 0 | 306 | 588 | 1394 | 996 | All in-kind |
| JINK | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 117 | 48 | 78 | 144 | 62 | 0 | 0 | 0 | 0 | 0 | 332 | 289 | 332 | 406 | |
| Serbia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Slovak Republic | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 10 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 8 | 46 | 19 | |
| Slovenia | 0 | 0 | 1/2 | 52 | 30 | 0 | 0 | 0 | 0 | 30 | 220 | 22 | 55 | 211 | 0 | 35 | 0 | 0 | 0 | 0 | 201 | 201 | 71 | /1 | |
| Spain | 0 | 0 | 103 | 55 | 0 | 0 | 0 | 0 | 0 | 210 | 220 | 22 | 35 | 211 | 83 | 10 | 0 | 0 | 0 | 0 | 381 | 381 | 597 | 5(0 | |
| Sweden | 0 | 83 | 99 | 5/ | 422 | 0 | 0 | 0 | 0 | 4239 | 439 | 45 | 90 | 0 | 0 | 195 | 0 | 0 | 0 | 0 | 330 | 330 | 509 | 509 | |
| Switzeriand | 0 | 22 | 27 | 10 | 455 | 0 | 0 | 0 | 0 | 455 | 455 | 3 | 20 | 12 | 15 | 235 | 0 | 0 | 0 | 0 | 238 | 238 | 0/1 | 0/1 | |
| Taipei Turkov | 0 | 22 | 27 | 10 | 0 | 0 | 0 | 0 | 0 | 05 | 05 | 8 | 26 | 12 | 15 | 0 | 0 | 0 | 0 | 0 | 01 | 01 | 120 | 120 | |
| Turkey United Vingdom | 0 | 0 | 250 | 250 | 222 | 22 | 0 | 0 | 0 | 764 | 764 | 0 | 260 | 174 | 116 | 0 | 0 | 0 | 0 | 0 | 550 | 550 | 1222 | 1222 | |
| United Kingdom | 0 | 0 | 230 | 230 | 252 | 1500 | 0 | 1572 | 0 | 2072 | 1807 | 51 | 209 | 1/4 | 110 | 0 | 0 | 0 | 0 | 0 | 559 | 2001 | 1525 | 1525 | |
| CEDN | 111 | 5485 | 0 | 0 | 0 | 1500 | 0 | 1372 | 0 | 5506 | 1428 | 100 | 1081 | 0 | 0 | 80 | 0 | 0 | 0 | 0 | 1360 | 1260 | 6056 | 2688 | |
| total | 515 | 6475 | 1512 4341 | 2436 | 2023 | 1628 | 13 | 1572 | 0 | 16174 | 10496 | 874 | 2575 | 1518 3375 | 1500 2825 | 1460 | 346 | 50 | 0 | 0 | 8323 | 10410 | 24497 | 2000 | |
| calculated total | 805 | 2115 | 4341 | 2313 | 0 | | | F | % | 10470 | 154 | 1405 | 2110 | 3373 | 2023 | 55 | | | Γ | % | 80 |] | | | |
| Actual payments | 332 | 1425 | 1474 | 6696 | 352 | 5 | 0 | E | | | 10284 | 376 | 1710 | 1978 | 2366 | 1972 | 548 | 429 | | | | 9379 | T | | |
| Income_actual payments | 192 | 5050 | 20 | _1260 | 1671 | 1623 | 12 | | | | 4210 | 100 | 965 | _/60 | _966 | -512 | _202 | _370 | | | | -1054 | ш П | | |
| meome-actual payments | 103 | 5050 | 30 | -4200 | 10/1 | 1023 | 13 | | | | 4310 | 498 | 803 | -+00 | -800 | -312 | -202 | -319 | | | | -1030 | Ш | | |

balance cumulative

ACTUAL & PLANNED INCOME FOR ATLAS CONSTRUCTION COMPLETION (kCHF)

| Annex | 1 |
|-------|---|
|-------|---|

| Funding Agency | | | | | CC | (A) | | | | | 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 | 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 | 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 | 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 | 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 | 38 | |
| Belarus | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 0 | 0 | 75 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 75 | |
| Brazil | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 38 | 38 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 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 | 1527.5 | 1528 | |
| Chile | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 38 | 0 | |
| China NSFC+MSTC | 0 | 25 | 18 | 13 | 13 | 0 | 0 | 0 | 0 | 69 | 69 | 0 | 9 | 13 | 6 | 2 | 0 | 0 | 0 | 0 | 30 | 30 | 99 | 99 | Profile as calculated |
| Colombia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 38 | 0 | |
| Czech Republic | 22 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 120 | 113 | 16 | 33 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 76 | 83 | 196 | 196 | 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 | 10 | 0 | 0 | 20 | 49 | 58 | 291 | |
| 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 | Ő | 300 | 712 | 13 | 13 | 0 | õ | ő | Ő | 1038 | 1001 | 21 | 30 | 0 | 0 | 0 | 55 | 273 | Ő | õ | 379 | 379 | 1417 | 1380 | |
| Georgia | Ő | 0 | 0 | 0 | 25 | 13 | õ | ő | ő | 38 | 38 | 0 | 0 | Ő | Ő | ő | 0 | 0 | Ő | Ő | 0 | 0 | 38 | 38 | |
| Germany BMBF | 1992 | ő | ő | ő | 458 | 0 | ő | 2 | ő | 2452 | 2452 | 430 | 368 | ő | ő | ő | ő | ő | ő | 0 | 798 | 798 | 3250 | 3250 | |
| Germany DESV | 0 | Ő | 0 | ő | 38 | 0 | 0 | õ | ő | 38 | | 0 | 0 | Ő | ő | Ő | ő | ő | Ő | 0 | 0 | 0 | 38 | 0_00 | |
| Cormony MPI | 122 | 200 | 0 | 100 | 58 | 0 | 0 | 0 | 0 | 570 | 570 | 61 | 51 | 82 | 2 | 0 | 0 | 0 | 0 | 0 | 196 | 101 | 766 | 761 | |
| Germany MIT | 122 | 290 | 0 | 100 | 75 | 46 | 0 | 0 | 0 | 121 | 121 | 01 | 0 | 02 | 0 | 0 | 52 | 0 | 0 | 0 | 52 | 52 | 173 | 173 | |
| Isroel | 0 | 0 | 27 | 20 | 100 | 40 | 0 | 0 | 0 | 262 | 262 | 6 | 120 | 0 | 0 | 0 | 52 | 0 | 0 | 0 | 124 | 124 | 173 | 407 | |
| Israel | 80 | 250 | 27 | 160 | 200 | 0 | 2200 | 0 | 0 | 2100 | 2419 | 14 | 202 | 222 | 267 | 252 | 0 | 0 | 0 | 0 | 1250 | 1222 | 497 | 497 | |
| Jonon | 0 | 350 | 1429 | 220 | 750 | 0 | 2200 | 0 | 0 | 2417 | 2410 | 14 | 393 | 212 | 400 | 233 | 0 | 0 | 0 | 0 | 612 | 612 | 4000 | 4051 | |
| Japan Manana | 0 | 0 | 1458 | 229 | /50 | 0 | 0 | 12 | 0 | 2417 | 2417 | 0 | 0 | 212 | 400 | 0 | 0 | 2 | 0 | 0 | 012 | 012 | 3029 | 3029 | |
| Morocco | 0 | 0 | 12 | 1107 | 25 | 0 | 0 | 13 | 0 | 38 | 38 | 22 | 24 | 101 | 1 | 12 | 0 | 3 | 0 | 0 | 4 | 211 | 42 | 4/ | |
| Netherlands | 0 | 107 | 25 | 1107 | 25 | 10 | 0 | 0 | 0 | 115/ | 115/ | 22 | 34 | 101 | 41 | 15 | 0 | 0 | 0 | 0 | 211 | 211 | 1308 | 1308 | |
| 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 |
| | 0 | 0 | 25 | 25 | 40 | 0 | 0 | 0 | 0 | 90 | 15 | 3 | 0 | 0 | 70 | 0 | 3 | 10 | 0 | 0 | 0 | 19 | 104 | 94 | |
| Portugal | 0 | 0 | 15 | 12 | 21 | 2 | 0 | 0 | 0 | 50 | 155 | 0 | 0 | 0 | 13 | 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 | 85 | All In-kind |
| Russia | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 263 | 0 | 263 | 1381 | 56 | 12 | 3 | 0 | 51 | 0 | 0 | 0 | 0 | 102 | 614 | 365 | 1995 | |
| JINK | 0 | 0 | 12 | 0 | 0 | 25 | 0 | 0 | 0 | 37 | 397 | 3 | 76 | 58 | 0 | 2 | 0 | 0 | 13 | 0 | 152 | 263 | 189 | 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 | 36 | 53 | |
| Slovenia | 0 | 0 | 12 | 13 | 35 | 61 | 0 | 0 | 0 | 121 | 121 | 0 | 0 | 0 | 0 | 19 | 0 | 12 | 0 | 0 | 31 | 31 | 152 | 152 | |
| 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 | 319 | |
| Turkey | 0 | 0 | 25 | 25 | 25 | 0 | 0 | 0 | 0 | 75 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 3064 | |
| US DOE + NSF | 0 | 1830 | 232 | 723 | 883 | 0 | 173 | 0 | 0 | 3841 | 6129 | 156 | 914 | 778 | 0 | 435 | 0 | 0 | 0 | 0 | 2283 | 2308 | 6124 | 8437 | |
| CERN | 978 | 4523 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5501 | 8927 | 294 | 949 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1243 | 1243 | 6744 | 10170 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| total | 3194 | 10311 | 4912 | 4751 | 3853 | 2842 | 2490 | 392 | 0 | 32744 | 40004 | 1973 | 3704 | 2161 | 1407 | 1203 | 308 | 311 | 13 | 0 | 11080 | 11670 | 43824 | 51674 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| calculated total | 9550 | 11900 | 9350 | 4700 | 100 | 4400 | | | | 40000 | 4 | 2510 | 2945 | 4035 | 1645 | 535 | | | | 0 | 11670 | 0 | | | |
| - | | | | | | | | - | | | | | | | | | | | _ | | | | | | |
| | | | | | | | | 0 | % | 82 | | | | | | | | | ç | % | 95 | | | | |
| - | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Actual payments | 8415 | 4490 | 3690 | 5940 | 6962 | 10503 | | | | 40000 | | 1126 | 1007 | 1044 | 4207 | 1941 | 3026 | | | | 12351 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Income-actual payments | -5221 | 5821 | 1222 | -1190 | -3110 | -7661 | | | | -7257 | | 847 | 2697 | 1117 | -2800 | -738 | -2718 | | | | -1271 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

balance cumul.

| | | Construction | MoU obligat | ions (kCHF) | | Г | CC and | C&I accepte | d (kCHF) | Grand | and Part not yet | | Additional |
|-----------------|--------|--------------|-------------|-------------|--------|-----|--------|-------------|-----------|---------------|------------------|-----|---------------|
| | | detec | tors | CF | | Ē | | p | . (| total | pled | ged | contributions |
| Funding | total | remaining | remaining | remaining | total | Ē | total | remaining | total | committed | | 0 | (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 | .[| 45 | | 45 | 240 | 10 | 11 | |
| Australia | 2145 | | | 350 | 2495 | .[| 357 | | 357 | 2852 | | | |
| Austria | 550 | | | | 550 | .[| 80 | | 80 | 630 | | | |
| Azerbaijan | 100 | | | | 100 | .[| 38 | | 38 | 138 | | 4 | |
| Belarus | 200 | | | | 200 | .[| 75 | | 75 | 275 | | 10 | |
| Brazil | 160 | | | 25 | 185 | Ē | 3 | 38 | 41 | 226 | 7 | 14 | |
| Canada | 13575 | | | 1500 | 15075 | . [| 2090 | | 2090 | 17165 | | | |
| Chile | 260 | | | 25 | 285 | ſ | | 38 | 38 | 323 | | | |
| China NSFC+MSTC | 1575 | | | | 1575 | . [| 141 | | 141 | 1716 | | | |
| Colombia | 69 | | | 31 | 100 | ſ | | 38 | 38 | 138 | | | |
| Czech Republic | 1610 | | 35 | | 1645 | Ē | 316 | | 316 | 1961 | | | |
| Denmark | 3300 | | | | 3300 | Ē | 118 | | 118 | 3418 | 183 | 121 | |
| Finland | 100 | | | | 100 | Ē | | | | 100 | | | |
| France IN2P3 | 39080 | | | | 39080 | Ē | 5891 | | 5891 | 44971 | | | |
| France CEA | 13679 | | | | 13679 | Ē | 1940 | | 1940 | 15619 | | | |
| Georgia | 100 | | | | 100 | Ē | 38 | | 38 | 138 | | 4 | |
| Germany BMBF | 32568 | | | | 32568 | Ē | 4531 | | 4531 | 37099 | | | |
| Germany DESY | 100 | | | | 100 | Ē | 38 | | 38 | 138 | | | |
| Germany MPI | 7545 | | | | 7545 | Ē | 1093 | | 1093 | 8638 | | | |
| Greece | 1725 | | | | 1725 | Ē | 261 | | 261 | 1986 | | | |
| Israel | 5035 | | | | 5035 | Ē | 739 | | 739 | 5774 | | | |
| Italy | 43185 | | 1925 | | 45110 | Ē | 6288 | | 6288 | 51398 | 292 | 58 | |
| Japan | 32175 | | | | 32175 | Ē | 4362 | | 4362 | 36537 | | | |
| Morocco | 243 | | | 113 | 355 | Ē | 29 | 13 | 42 | 397 | 5 | 10 | |
| Netherlands | 12115 | | | | 12115 | Ē | 1934 | | 1934 | 14049 | | | |
| Norway | 4120 | | | | 4120 | Ē | 581 | | 581 | 4701 | | | |
| Poland | 965 | | | | 965 | Ē | 123 | | 123 | 1088 | 6 | 2 | |
| Portugal | 1930 | 150 | 100 | | 2180 | Ē | 339 | | 339 | 2519 | 105 | 2 | |
| Romania | 550 | | | | 550 | Ē | 140 | | 140 | 690 | | | |
| Russia | 16117 | | | 2138 | 18255 | Ē | 1496 | 263 | 1759 | 20014 | 1232 | | |
| JINR | 7340 | 100 | | 440 | 7880 | Ē | 521 | | 521 | 8401 | 471 | 74 | |
| Serbia | | | | | | Ē | 300 | | 300 | 300 | | | |
| Slovak Republic | 550 | | | | 550 | Ē | 82 | | 82 | 632 | | | |
| Slovenia | 1540 | | | | 1540 | Ē | 183 | | 183 | 1723 | | | |
| Spain | 9775 | | | | 9775 | Ē | 1706 | | 1706 | 11481 | | | |
| Sweden | 10800 | | | | 10800 | Ē | 1691 | | 1691 | 12491 | | | |
| Switzerland | 17675 | 830 | | | 18505 | ŀ | 2372 | | 2372 | 20877 | | | |
| Taipei | 3000 | | | | 3000 | Ē | 445 | | 445 | 3445 | | | |
| Turkey | 350 | | | | 350 | ŀ | 75 | | 75 | 425 | | 10 | |
| United Kingdom | 34100 | | | | 34100 | , F | 4387 | | 4387 | 38487 | | | |
| US DOE+NSF | 78557 | | 1983 | 195 | 80735 | ŀ | 7700 | | 7700 | 88435 | | | |
| CERN | 58140 | 1375 | | | 59515 | ŀ | 9300 | | 9300 | 68815 | | | 4400 |
| | | | ł | I I | | L | | ! | | | L | | |
| | | | | | | | | | | | | | |
| TOTAL | 457098 | 2455 | 4043 | 4817 | 468412 | .[| 61923 | 390 | 62313 | 530725 | 2311 | 320 | 4400 |

| | of which for CtC | -5858 | 5858 | | 0 |
|------------------------|--------------------------|--------|--------------------------|----------------------|--------|
| Available for payments | Total baseline available | 462555 | RRB accepted CtC(1)68170 | RRB accepted CtC (2) | 4400 |
| Notes | | | | Grand total | 535125 |

Notes

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

Contain Four Fau in Constitution woo is renormanized, includes also the derival controlutions made so fai 2. Total CMoU refers to updated CORE construction figures (March 2008)
 TDR detector staged in 2002 for ca 30 MCHF of which < 12 MCHF (cash deferrals) intended to be used for covering cost over-runs
 Sharing between BMBF/MPI and RF/JINR based on CORE MoU

5. CEA has contributed 1 MCHF to CF over and above its original MoU share (not shown here) 6. Risk of missing contributions in CF is 2.9 MCHF (Russia&JINR 2.8 MCHF, other 0.1 MCHF)

7. Remaining US C&I contribution of 2.9 MCHF is agreed on a best effort basis

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

Annex 3

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

actual situtation on 28.02.2009

new in-kind proposals

| Funding | original | current | in-kind | cash | m.s. | total | % of | | in-kind | total | % of |
|-----------------|-----------|-----------|----------|----------|----------|----------|-----------|---|----------|----------|-----------|
| Agency | CP | CC-A | contrib. | contrib. | contrib. | contrib. | CP+CC-A | | contrib. | contrib. | CP+CC-A |
| | committed | committed | | | | | committed | | | | committed |
| | | | | | | | | | | | |
| Argentina | 200 | 75 | 0 | 0 | 275 | 275.0 | 100% | | 0 | 275 | 100% |
| Armenia | 100 | 38 | 0 | 29 | 108.8 | 137.8 | 100% | | 0 | 137.8 | 100% |
| Australia | 1100 | 190 | 250 | 415 | 275.0 | 940.0 | 73% | | 0 | 940.0 | 73% |
| Austria | 250 | 52 | 200 | 14 | 150.0 | 363.5 | 120% | | 0 | 363.5 | 120% |
| Azerbaijan | 100 | 38 | 0 | 0 | 137.5 | 137.5 | 100% | | 0 | 137.5 | 100% |
| Belarus | 200 | 75 | 0 | 0 | 275.1 | 275.1 | 100% | | 0 | 275.1 | 100% |
| Brazil | 100 | 38 | 0 | 0 | 75.0 | 75.0 | 54% | | 0 | 75.0 | 54% |
| Canada | 6600 | 1139 | 3360 | 1916 | 962.5 | 6238.5 | 81% | | 0 | 6238.5 | 81% |
| Chile | 100 | 38 | 0 | 0 | 75.0 | 75.0 | 54% | | 0 | 75.0 | 54% |
| China NSFC+MSTC | 440 | 69 | 0 | 371 | 137.5 | 508.5 | 100% | | 0 | 508.5 | 100% |
| Colombia | 100 | 38 | 0 | 0 | 68.8 | 68.8 | 50% | | 0 | 68.8 | 50% |
| 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 | 6645 | 825.0 | 19935.0 | 100% | | 0 | 19935.0 | 100% |
| France CEA* | 5800 | 1038 | 5420 | 1280 | 137.5 | 6837.5 | 100% | | 0 | 6837.5 | 100% |
| Georgia | 100 | 38 | 0 | 0 | 137.5 | 137.5 | 100% | | 0 | 137.5 | 100% |
| Germany BMBF | 14200 | 2452 | 14115 | 1321 | 1237.5 | 16673.5 | 100% | | 0 | 16673.5 | 100% |
| Germany DESY | 100 | 38 | 0 | 0 | 137.5 | 137.5 | 100% | | 0 | 137.5 | 100% |
| Germany MPI | 3300 | 570 | 2175 | 1645 | 137.5 | 3957.5 | 102% | | 0 | 3957.5 | 102% |
| Greece | 750 | 121 | 260 | 198 | 412.5 | 870.5 | 100% | | 0 | 870.5 | 100% |
| Israel | 2100 | 363 | 1000 | 1050 | 412.5 | 2462.5 | 100% | | 0 | 2462.5 | 100% |
| Italy | 19800 | 3109 | 18810 | 2449 | 1650.0 | 22909.0 | 100% | | 0 | 22909.0 | 100% |
| Japan | 14000 | 2417 | 11800 | 2555 | 2062.5 | 16417.0 | 100% | | 0 | 16417.0 | 100% |
| Morocco | 150 | 38 | 0 | 50 | 62.5 | 112.5 | 60% | | 0 | 112.5 | 60% |
| Netherlands | 6700 | 1157 | 7782 | 0 | 275.0 | 8057.0 | 103% | | 0 | 8057.0 | 103% |
| Norway | 1800 | 311 | 1150 | 686 | 275.0 | 2111.0 | 100% | | 0 | 2111.0 | 100% |
| Poland | 400 | 96 | 161 | 60 | 275.0 | 496.0 | 100% | | 0 | 496.0 | 100% |
| Portugal | 900 | 50 | 811 | 89 | 137.5 | 1037.5 | 109% | | 0 | 1037.5 | 109% |
| Romania | 250 | 52 | 135 | 30 | 137.5 | 302.5 | 100% | | 0 | 302.5 | 100% |
| Russia# | 8000 | 263 | 4385 | 865 | 612.5 | 5862.6 | 71% | | 0 | 5862.6 | 71% |
| JINR | 2300 | 38 | 1660 | 460 | 137.5 | 2257.5 | 97% | | 0 | 2257.5 | 97% |
| Serbia | 0 | 300 | 163 | 100 | 37.5 | 300.5 | 100% | | 0 | 300.5 | 100% |
| Slovak Republic | 200 | 31 | 50 | 56 | 125.0 | 231.0 | 100% | | 0 | 231.0 | 100% |
| Slovenia | 660 | 121 | 0 | 644 | 137.5 | 781.0 | 100% | | 0 | 781.0 | 100% |
| Spain | 4600 | 742 | 4300 | 629 | 412.5 | 5341.6 | 100% | | 0 | 5341.6 | 100% |
| Sweden | 4700 | 811 | 1240 | 3800 | 550.0 | 5590.3 | 101% | | 0 | 5590.3 | 101% |
| Switzerland | 8500 | 1475 | 9600 | 276 | 275.0 | 10150.5 | 102% | | 0 | 10150.5 | 102% |
| Taipei | 1320 | 224 | 0 | 1406 | 137.5 | 1543.0 | 100% | | 0 | 1543.0 | 100% |
| Turkey | 200 | 75 | 0 | 0 | 275.0 | 275.0 | 100% | | 0 | 275.0 | 100% |
| United Kingdom | 15000 | 2590 | 2850 | 12953 | 1787.5 | 17590.5 | 100% | | 0 | 17590.5 | 100% |
| US DOE + NSF | 35500 | 3841 | 15150 | 19459 | 4537.5 | 39146.1 | 100% | | 0 | 39146.1 | 100% |
| CERN# | 27400 | 4527 | 7860 | 23930 | 125.0 | 31914.5 | 100% | | 0 | 31914.5 | 100% |
| | 207122 | 01771 | 107447 | 06405 | 20752 5 | 224004.0 | 000/ | 1 | 0 | 224004.0 | 000/ |
| total | 20/120 | 51//1 | 12/667 | 86485 | 20652.7 | 234804.8 | 98% | | 0 | 234804.8 | 98% |

Original C.P obligations as defined in RRB-D 98-44 rev

C.C-A = Completion Costs for Common Items. Currently committed at 32 MCHF, over & above original C.P values

Additional CERN contribution of 4.4 MCHF for CtC(2) not shown in the present table (see Annex 1 in Baseline and CtC report) * 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

Annex 3

In-kind Contributions to ATLAS Common Projects and Construction Completion (Category A) by Funding Agency as of December 31, 2008

| | 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 IDshielding components | 15 300 | April 2001 October 2002 |
| Denmark | | |
| - power supply for toroid test station | 200 | April 1998 |

France IN2P3

| design of LAr end-cap cryostats construction of LAr end-cap cryostats cables for LAr barrel cr. feedthroughs parts of LAr prox. and external cryogenics LAr Cryoplant integration work additional tooling for LAr Barrel cryostat additional tooling for LAr EC cryostat LAr cryogenics project follow-up work LAr cryo process control system (add. cost)* support structures UX15* additional work on LAr EC cryostats* software for LAr cryo process controls* HM traction system for Big Wheels* | 720 2650 650 5000 550 120 125 650 730 270 100 600 300 | April 1996 October 1997 October 1997 October 1999 October 2002 October 2002 October 2002 October 2002 October 2003 October 2003 April 2004 October 2004 October 2004 |
|--|---|--|
| France CEA | | |
| design of barrel toroid magnet work on B0 - coil EB welding tool for BT coil casings EB welding tool for BT coil casings reduction in contribution BT cryoring* | 3500 920 800 -800 1 000 | October 1995 October 1996 April 1998 October 2001 April 2003 |
| Germany, BMBF | | |
| design of LAr end-cap cryostats short sample superconductor 50% of superconducting cable for toroids construction of LAr end-cap cryostats elements of BT coil casings vacuum pumps for the toroid magnets elements of the BT coil casings (add. cost)* | 240 600 6800 1325 3350 1000 800 | April 1996 April 1997 October 1997 October 1997 April 1998 October 2000 October 2002 |
| Germany, MPI | | |
| construction of LAr end-cap cryostats supporting structures for cryolines additional work on LAr EC cryostats* | 1325 750 100 | October 1997 October 2001 April 2004 |

Greece

| - Muons B wheels support | 260 | October 2003 |
|---|-------|--------------|
| Israel | | |
| - thermal shields for ECTs | 1000 | April 2000 |
| Italy, INFN | | |
| - work on B0 - coil - 25% of superconducting cable for | 2450 | October 1996 |
| 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" | 1000 | April 2004 |
| Norway | | |
| - LAr storage vessels | 1150 | April 2000 |

Poland

| trucks for Feet & Rails racks cabling and cooling* | 140 21 | October 2002 October 2006 |
|--|---|--|
| Portugal | | |
| He storage vesselssafety system* | 800 11 | October 1999 October 2006 |
| Romania | | |
| Muons B wheels support Muons B wheels support (add. cost)* | 120 15 | October 2003 October 2003 |
| Russia | | |
| current leads for toroid magnets tie rods for BT coils mechanical supports for BT test station tie rods for BT coils, reduction of alloc. BT superinsulation ECT cold mass support rods BT warm structure detector support structures (Feet and Rails) BT warm structure (reduction in contribution detector support structures (Feet and Rails) reduction in contribution busbars busbars (adjustment) BT super insulation assembly | 100 300 150 - 100 200 100 650 3250 n) -400 -1200 420 - 70 150 | April 1999 April 1999 April 1999 April 2000 April 2000 April 2000 October 2000 October 2001 October 2001 October 2002 April 2003 October 2002 |
| BT super insulation assembly Muons B wheels support BT superinsulation (additional material) busbars detector support structures (Feet and Rails) busbars (adjustment) Muons B wheels support (adjustment) | 150 825 135 50 -330 300 145 | October 2002 October 2003 October 2004 October 2004 October 2004 October 2007 October 2007 |
| - muons d'wheels support (aujusinient) | -140 | OCIODEI 2007 |

JINR

| BT warm structure detector support structures (Feet and Rails) BT warm structure (increase in contribution) detector support structures (Feet and Rails) adjustment detector support structures (Feet and Rails) | 800 1000 +400 -400 | April 2000 October 2000 October 2001 October 2001 |
|--|-----------------------------|--|
| Serbia | | |
| - shielding disks and supports* | 165 | April 2003 |
| 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 vesselssurveying support | 1000 240 | April 2000 April 1999 |
| Switzerland | | |
| 25% of superconducting cable for toroids elements of BT coil casings elements of BT coil casings (add. cost)* | 3400 5000 1200 | October 1997 April 1998 October 2002 |
| United Kingdom | | |
| design of end-cap toroid magnetsproximity cryogenics for barrel toroid | 1250 | October 1995 |
| test station - proximity cryogenics test station (adjustment) | 1700 - 100 | October 1998 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 |

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 (adjustme | nt) 100 | April 2003 |
| | | |

*) contribution to Construction Completion