



# CMS

## Expenditure for Construction 1995-2005

Compact Muon Solenoid

**CERN-RRB-2006-052**

Cf. CERN-RRB-2006-032

A. Petrilli, RRB-22, 24 April 2006



# Introduction

- **This report gives the detailed and accrued CMS construction cost up to the end of 2005**
- **Only items present in the breakdown of items of the CMS Construction MoU and its *All-Silicon Tracker* amendment are included**
- **For comparison with the MoU, all commitments and payments are given to the detail of Level 3**
- **All expenditure is reported in current prices whilst the original MoU cost estimate was in 1995 prices (for the Tracker in 2000 prices)**



# Introduction

- **For the purpose of this report, "commitment" gives the amounts for which a legally binding document has been signed**
- **The expenditure compiled in this report was, however, gathered from a large number of institutions which follow their own policy of making commitments**
- **Some institutes prefer to report on "payments" only. Their "payments" are shown here as "commitments"**
- **The total level of "commitments" is therefore likely to be higher than reported here**



## Comments

- 1. This document uses in all tables, including the comparisons of expenditures vs. costs**
  - the currently available Funding and
  - the Cost Estimates figures as reported in the Status Report (cf. CERN-RRB-2006-031).

**Available funding will be reviewed in time for the October 2006 RRB**
- 2. The Commitments and Payments yearly plots present the foreseen profiles as detailed in the Financial Plan**
- 3. The DAQ staging of 1 slice towards the Tracker Integration Facility is explicitly shown in the DAQ and Tracker tables**



# Overview of Annex 3 (MCHF) EXCEL-HIDDEN

	1995 - 2004		2005		1995 - 2005			
	Comm	Paid	Comm	Paid	Comm	Paid	Comm	Paid
Magnet CP	120.7	110.1	7.9	9.5	128.6	119.6	101%	94%
Offline CP	2.1	2.1	0.1	0.1	2.2	2.2	61%	61%
C&I CP	7.6	6.0	3.9	4.5	11.5	10.5	75%	69%
Subdetectors	249.4	224.8	84.0	60.5	333.4	285.3	83%	71%
Totals	379.8	342.9	95.9	74.7	475.7	417.6	87%	77%

Percentages with respect to the Financial Plan revised Cost Estimates



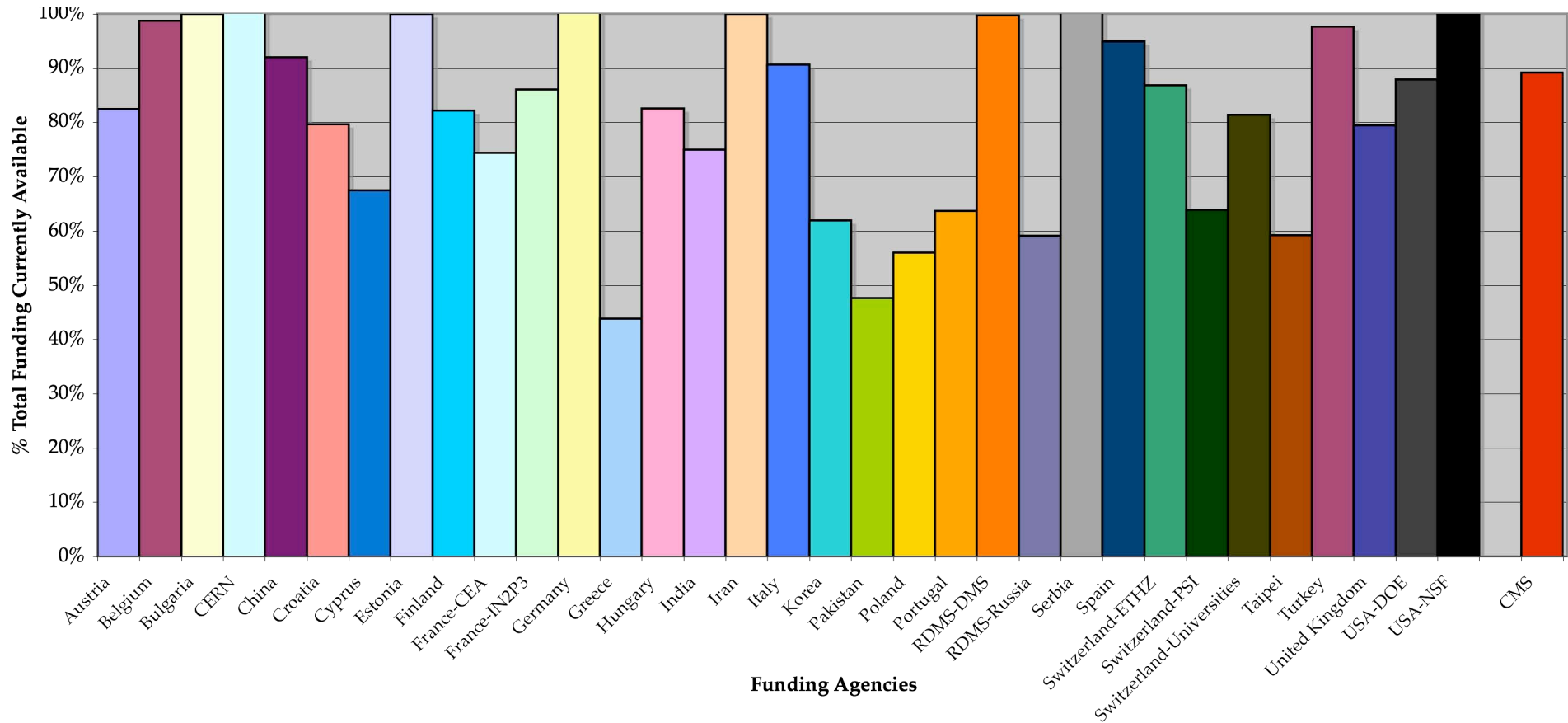
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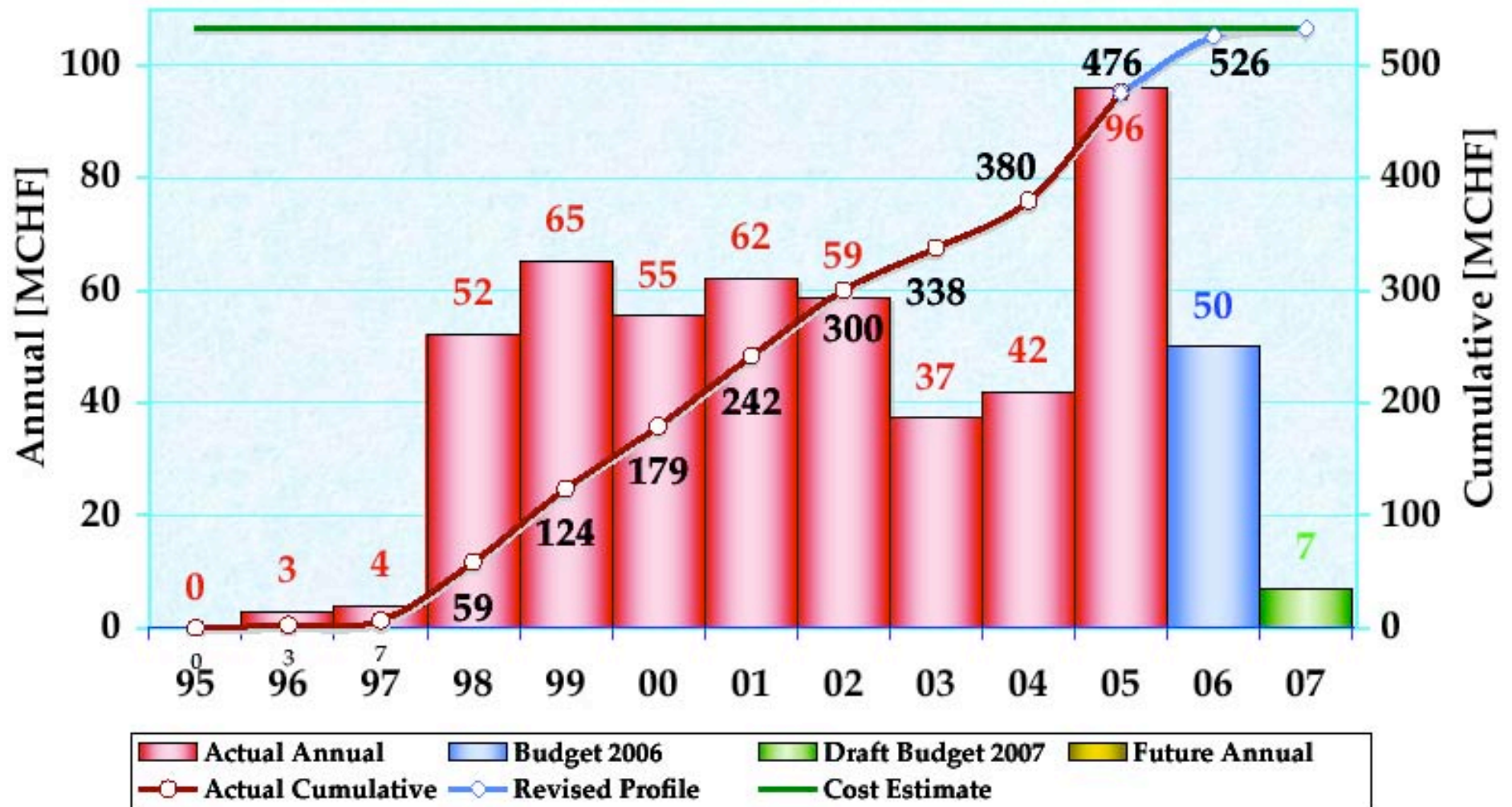
# Funding Agencies Commitments 1995-2005



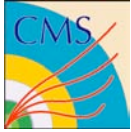


# Yearly Commitments

Commitments for CMS Construction

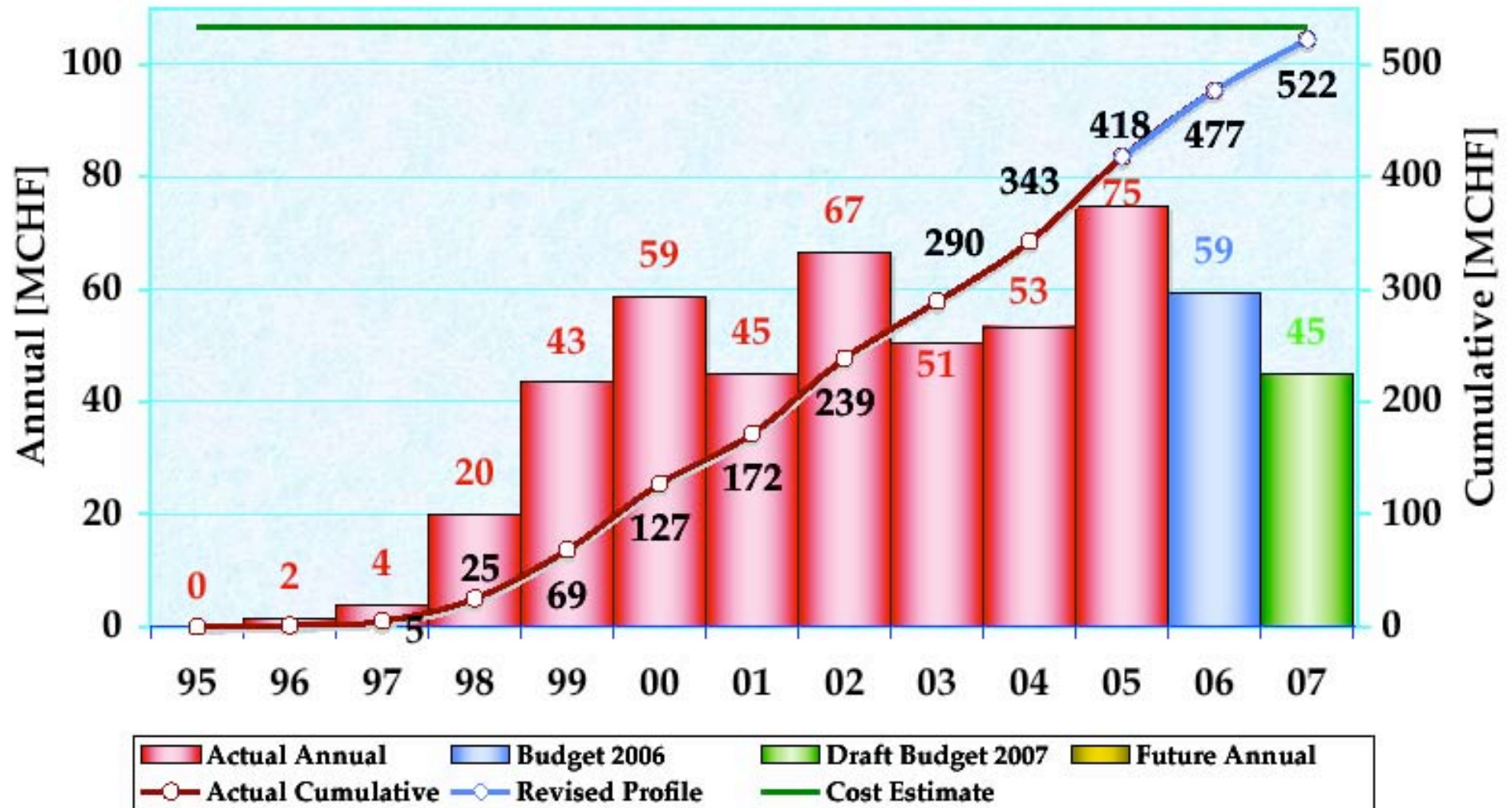






# Yearly Payments

## Payments for CMS Construction



# CMS

## **Preliminary Draft Budget for Construction 2007**

Compact Muon Solenoid

**Cf. CERN-RRB-2006-033**

A. Petrilli, RRB-22, April 24, 2006



# Introduction

- **This document summarizes the preliminary funding requirements for all the payments planned in 2007 to follow the CMS construction schedule**
- **In 2007, the magnet will be completed and all subdetectors will be in the integration/commissioning phase**



# Introduction

- **This document covers requests for all subsystems for funds available under the CMS MoU and Cost to Completion (cf. Status Report, CERN-RRB-2006-031)**
- **This preliminary draft budget for the year 2007 is based on the overall planning as presented in the CMS Status Report (cf. CERN-RRB-2006-031), including funds not yet authorized**



## Comments

- **The present estimates for all payments in 2007 add up to 34 MCHF**
- **Together with the payments made by the end of 2005 (418 MCHF), the 2006 budget planned payments (59 MCHF) and the estimated delayed payments (10 MCHF), the total estimated payments by the end of 2007 would total some 522 MCHF**
- **This is about 98% of the Financial Plan revised cost and 99% of the funding currently available**



## Comments

- **This Preliminary Draft Budget is based on the breakdown of items in the CMS Construction MoU and its *All-Silicon Tracker* amendment**
- **As for the past, all figures shown as *Payments expected in 2007* are to be considered as best estimates at this time because the actual expenditure will depend, case by case, on commercial tenders received, contract negotiations, currency fluctuations and actual payments during 2006**



# Overview of 2007 Construction Budget (MCHF)

All data extracted from Annex 10

All figures in MCHF

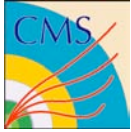
Income Expected - Planned Payments											
Planned payments											
Income expected in 2007 plus funds from 2006											
Funds expected to be carried forward from 2006		Magnet	Tracker	Electromagnetic Calorimeter	Hadron Calorimeter	Muon Detector	Trigger and Data Acquisition	Offline Computing	Infrastructure	Commissioning & Integration	TOTALS
		0.4						0.9		-0.6	0.8
		0.6	3.6	17.0		0.4	3.8	1.0	2.6	-0.6	28.5
		1.3	4.2	20.6		0.4	3.8	0.2	2.6	1.1	34.3
		-0.7	-0.6	-3.6				0.8		-1.7	-5.8



## Comments

- **The present Preliminary Draft Budget is not balanced: some 5.8 MCHF are not covered and will be needed in 2007 to maintain the construction schedule**
- **The effect of the 2006 to 2007 carry-over has not yet been taken into account**





## Summary

- **Annex 10 of CERN-RRB-2006-033 summarizes the Preliminary Draft Budget for 2007 by Funding Agency and by subsystem**
- **The exact request for 2007 will depend on the outcome of the present RRB meeting and of the review of each subdetector needs**

**The RRB is invited to take note of this preliminary budget request**