

RRB October 2005

# **COMMON FUND EXPECTED Spending 2005**

	<b>kCHF</b>
<b>Detector</b>	<b>Common Fund</b>
<b>CALO</b>	<b>996</b>
<b>DAH</b>	<b>40</b>
<b>OTR</b>	<b>383</b>
<b>INFRASTRUCTURE</b>	<b>1,500</b>
<b>MUON</b>	<b>210</b>
<b>TOTAL</b>	<b>3,129</b>

2005	CALO	DAH	MUON	OTR	RICH	STR	TRIGGER	VELO	TOTALS
FRANCE	1,120,000						955,000		2,075,000
GERMANY BMBF				954,000					954,000
GERMANY MPG						582,000			582,000
ITALY		10,000	2,260,000		430,000		200,000		2,900,000
NL				859,000			120,000	305,000	1,284,000
POLAND				100,000					100,000
RUSSIA	110,000								110,000
SPAIN	37,570	100,000				250,000			387,570
CH		375,000				829,000		2,050,000	3,254,000
UKRAINE						35,000			35,000
UK					3,812,600			649,000	4,461,600
CERN	523,122	505,000	65,000		312,000	735,000			2,140,122
<b>TOTALS</b>	1,790,692	990,000	2,325,000	1,913,000	4,554,600	2,431,000	1,275,000	3,004,000	18,283,292

The Common Fund spending expected in 2006 originally included an appreciable amount for DAH.

As explained in the Status Report, it is now planned that most of the DAH spending will be delayed until 2007, with even some in 2008.

The following two slides show spending in line with the original plan, and spending as LHCb would now prefer the funds to be distributed.

<b>COMMON FUND EXPECTED Spending 2006</b>	
	<b>kCHF</b>
<b>Detector</b>	<b>Common Fund</b>
<b>CALO</b>	<b>465</b>
<b>DAH</b>	<b>1,500</b>
<b>OTR</b>	<b>0</b>
<b>INFRASTRUCTURE</b>	<b>1,700</b>
<b>MUON</b>	<b>27</b>
<b>TOTAL</b>	<b>3,692</b>

<b>MODIFIED COMMON FUND Spending 2006</b>	
	<b>kCHF</b>
<b>Detector</b>	<b>Common Fund</b>
<b>CALO</b>	<b>465</b>
<b>DAH</b>	<b>0</b>
<b>OTR</b>	<b>931</b>
<b>INFRASTRUCTURE</b>	<b>1,700</b>
<b>MUON</b>	<b>269</b>
<b>RICH</b>	<b>670</b>
<b>TOTAL</b>	<b>4,035</b>

2006	CALO	DAH	MUON	OTR	RICH	STR	TRIGGER	VELO	TOTALS
FRANCE							489,000		489,000
GERMANY BMBF				218,000					218,000
ITALY			1,575,000		20,000		105,000		1,700,000
NL							260,000		260,000
RUSSIA	330,000		135,000						465,000
SPAIN	50,000	100,000				200,000			350,000
CH		625,000				100,000			725,000
UKRAINE						35,000			35,000
UK					1,163,800			105,600	1,269,400
CERN		44,000							44,000
<b>TOTALS</b>	380,000	769,000	1,710,000	218,000	1,183,800	335,000	854,000	105,600	5,555,400

There is about 4 MCHF uncommitted in the CF at the moment with a further 4 MCHF still due from the funding agencies. We know we should spend all Common Funds by the end of 2006 or mid 2007 other than the contribution to the DAQ Farm.

The main amounts due at the end of September were:

1,679 kCHF Italy

700 k Switzerland

500 k Netherlands

490 k Spain

242 k Germany MPI

222 k Germany BMBF

100 k Poland



We expect about 340 kCHF to arrive very shortly from Spain.

Italy has indicated we can expect 800 kCHF at the beginning of 2006 with the remaining 880 kCHF to come early in 2007.

Germany MPG will make its final contribution directly to the PC Farm.

As CERN is offering to help bridge any cash flow problem, it is essential to know when the remaining outstanding funds will become available.

**Cat A M&O 2005-6**

<b>Item list</b>	<b>September status</b>	<b>Budget</b>
	<b>2005 Spending</b>	<b>kCHF</b>
<b>Detector related costs</b>	<b>56</b>	<b>120</b>
<b>Secretariat</b>	<b>100</b>	<b>180</b>
<b>Communications</b>	<b>4</b>	<b>5</b>
<b>On-line computing</b>	<b>70</b>	<b>180</b>
<b>Test beams, calibration facilities</b>	<b>49</b>	<b>20</b>
<b>Laboratory operations</b>	<b>19</b>	<b>45</b>
<b>General services</b>	<b>138</b>	<b>320</b>
<b>Total</b>	<b>436</b>	<b>870</b>
<b>Power</b>	<b>0</b>	<b>60</b>

<b>Estimated Category A M&amp;O Costs for LHCb</b>	<b>2006</b>
<b>Items</b>	<b>kCHF</b>
<b>Detector related costs</b>	<b>392</b>
<b>Secretariat</b>	<b>166</b>
<b>On-Call communications</b>	<b>5</b>
<b>CORE Computing</b>	<b>0</b>
<b>On-line Computing</b>	<b>350</b>
<b>Test Beams</b>	<b>45</b>
<b>Laboratory Operations</b>	<b>45</b>
<b>General Services</b>	<b>475</b>
<b>Total</b>	<b>1478</b>
<b>Power</b>	<b>100</b>
<b>Grand Total</b>	<b>1578</b>

<b>FUNDING AGENCY</b>	<b>PhD</b>	<b>% PhD</b>	<b>2006</b>	<b>Power</b>	<b>Total Cat A</b>
	<b>Equivs</b>	<b>Equivs.</b>	<b>Share</b>	<b>Share</b>	<b>plus Power</b>
<b>BRAZIL</b>	<b>14</b>	<b>3.99%</b>	<b>58,952</b>	<b>3,989</b>	<b>62,940</b>
<b>CERN</b>	<b>52</b>	<b>14.81%</b>	<b>218,963</b>		
<b>CHINA</b>	<b>3</b>	<b>0.85%</b>	<b>12,632</b>	<b>855</b>	<b>13,487</b>
<b>FRANCE IN2P3</b>	<b>47</b>	<b>13.39%</b>	<b>197,909</b>		
<b>GERMANY BMBF</b>	<b>13</b>	<b>3.70%</b>	<b>54,741</b>		
<b>GERMANY MPG</b>	<b>7</b>	<b>1.99%</b>	<b>29,476</b>		
<b>ITALY INFN</b>	<b>49</b>	<b>13.96%</b>	<b>206,330</b>		
<b>NETHERLANDS</b>	<b>17</b>	<b>4.84%</b>	<b>71,584</b>		
<b>POLAND</b>	<b>13</b>	<b>3.70%</b>	<b>54,741</b>		
<b>ROMANIA</b>	<b>4</b>	<b>1.14%</b>	<b>16,843</b>	<b>1,140</b>	<b>17,983</b>
<b>RUSSIA</b>	<b>32</b>	<b>9.12%</b>	<b>134,746</b>	<b>3,863</b>	<b>138,609</b>
<b>SPAIN</b>	<b>15</b>	<b>4.27%</b>	<b>63,162</b>		
<b>SWITZ Lausanne</b>	<b>11</b>	<b>3.13%</b>	<b>46,319</b>		
<b>SWITZ Zurich</b>	<b>6</b>	<b>1.71%</b>	<b>25,265</b>		
<b>UK</b>	<b>58</b>	<b>16.52%</b>	<b>244,228</b>		
<b>UKRAINE</b>	<b>4</b>	<b>1.14%</b>	<b>16,843</b>	<b>1,140</b>	<b>17,983</b>
<b>USA NSF</b>	<b>6</b>	<b>1.71%</b>	<b>25,265</b>	<b>1,619</b>	<b>26,884</b>
<b>TOTAL</b>	<b>351</b>	<b>100.00%</b>	<b>1,478,000</b>	<b>10,985</b>	

<b>FUNDING AGENCY</b>	<b>PhD</b>	<b>% PhD</b>	<b>2006</b>	<b>Power</b>	<b>Total Cat A</b>
	<b>Equivs</b>	<b>Equivs.</b>	<b>Share</b>	<b>Share</b>	<b>plus Power</b>
<b>BRAZIL</b>	<b>14</b>	<b>3.99%</b>	<b>52,889</b>	<b>3,989</b>	<b>56,877</b>
<b>CERN</b>	<b>52</b>	<b>14.81%</b>	<b>196,444</b>		
<b>CHINA</b>	<b>3</b>	<b>0.85%</b>	<b>11,333</b>	<b>855</b>	<b>12,188</b>
<b>FRANCE IN2P3</b>	<b>47</b>	<b>13.39%</b>	<b>177,556</b>		
<b>GERMANY BMBF</b>	<b>13</b>	<b>3.70%</b>	<b>49,111</b>		
<b>GERMANY MPG</b>	<b>7</b>	<b>1.99%</b>	<b>26,444</b>		
<b>ITALY INFN</b>	<b>49</b>	<b>13.96%</b>	<b>185,111</b>		
<b>NETHERLANDS</b>	<b>17</b>	<b>4.84%</b>	<b>64,222</b>		
<b>POLAND</b>	<b>13</b>	<b>3.70%</b>	<b>49,111</b>		
<b>ROMANIA</b>	<b>4</b>	<b>1.14%</b>	<b>15,111</b>	<b>1,140</b>	<b>16,251</b>
<b>RUSSIA</b>	<b>32</b>	<b>9.12%</b>	<b>120,889</b>	<b>3,863</b>	<b>124,752</b>
<b>SPAIN</b>	<b>15</b>	<b>4.27%</b>	<b>56,667</b>		
<b>SWITZ Lausanne</b>	<b>11</b>	<b>3.13%</b>	<b>41,556</b>		
<b>SWITZ Zurich</b>	<b>6</b>	<b>1.71%</b>	<b>22,667</b>		
<b>UK</b>	<b>58</b>	<b>16.52%</b>	<b>219,111</b>		
<b>UKRAINE</b>	<b>4</b>	<b>1.14%</b>	<b>15,111</b>	<b>1,140</b>	<b>16,251</b>
<b>USA NSF</b>	<b>6</b>	<b>1.71%</b>	<b>22,667</b>	<b>1,619</b>	<b>24,285</b>
<b>TOTAL</b>	<b>351</b>	<b>100.00%</b>	<b>1,326,000</b>	<b>10,985</b>	

## Category B

The CORE computing team is referred to as a Category B item.

Category B for detector maintenance is the responsibility of each sub-detector group who have to arrive at an agreed sharing of the work and costs involved.

The Muon group is the first to have indicated such a sharing, prompted mainly by the Italian part of the collaboration who plan to make a request for funds for next year.

We expect all sub-detectors to eventually define a plan for sharing/contributing the resources needed for maintenance.