Milestone Tables

Table 1. Milestones for the period Sep 2006 – May 2007		
WP1.19 Successful end of 2006 CERN test beam run	Oct 2006	Achieved
WP1.27 Present interim results at LCWS07	May 2007	Achieved
WP2.67 Present simulation results	Dec 2006	Complete Apr 2007
WP2.17 Test bench 0 hardware ready and commissioned	Jan 2007	Complete May 2007
WP2.40 Report on FPGA Ethernet work	Jan 2007	Complete Apr 2007
WP2.56 Acquire optical switch	Mar 2007	Complete May 2007
WP2.90 Initial prototype complete	Mar 2007	Achieved
WP3.5 First sensor interim design review	Oct 2006	Complete Jan 2007
WP3.6 First sensor design review	Dec 2006	Complete Mar 2007
WP3.7 First sensor design to foundry	Jan 2007	Complete Apr 2007
WP3.9 First sensor fabrication complete	May 2007	Expected Jul 2007
WP4.4 Glue literature research report	Sep 2006	Complete Dec 2006
WP4.7 Report on glue ageing results	May 2007	Achieved
WP5.34 Generic physics analysis implemented	Sep 2006	Achieved
WP5.16 Present first physics benchmarks results at Valencia	Nov 2006	Milestone deleted (see note 2 at end)
WP5.11 Presentation of physics benchmark results at LCWS07	Apr 2007	Achieved

Table 2. Milestones for the period Jun – Dec 2007	
WP1.14 Complete analysis of DESY data	**Expected Oct 2007**
WP1.20 Successful end of 2007 CERN test beam run	**Expected Aug 2007**
WP1.24 Submit paper on electron results	**Expected Dec 2007**
WP1.29 Complete internal report on hadron data	Dec 2007
WP2.70 Make proposal for robust/flexible system	Jun 2007
WP2.73 Demonstrate remote FPGA reset and reconfigure	Jun 2007
WP2.20 Concepts established for 1.5m data path	Jul 2007
WP2.7 Successful readout of 2007 ASICs	**Retired**
WP2.50 Component selection	Sep 2007
WP2.77 Demonstrate system lock and data interface	Sep 2007
WP2.94 Initial system complete	Dec 2007
WP3.14 Second sensor interim design review	**Expected Dec 2007**
WP3.15 Second sensor design review	**Expected Mar 2008**
WP5.36 Alternative benchmark analysis available	Sep 2007
WP5.24 First results from mechanical imperfections simulation	Dec 2007

	As at Sep 2006	As at May 2007 **Changes in bold**	Delay due to		Affects critical path?	See note
			UK?	Other Collabor-ators?		
Table 3 – Overall milestone list						
WP1.9 Successful end of DESY test beam run	May 2005	Achieved				
WP1.19 Successful end of 2006 CERN test beam run	Oct 2006	**Achieved**				
WP1.27 Present interim results at LCWS07	May 2007	**Achieved**				
WP1.14 Complete analysis of DESY data	Jun 2007	**Expected Oct 2007**				
WP1.20 Successful end of 2007 CERN test beam run	Jul 2007	**Expected Aug 2007**	N		N	
WP1.24 Submit paper on electron results	Sep 2007	**Expected Dec 2007**				
WP1.29 Complete internal report on hadron data	Dec 2007	Dec 2007				
WP1.33 Successful completion of FNAL test beam run	Jun 2008	**Expected Sep 2008**				
WP1.37 Submit paper on hadron results	Mar 2009	Mar 2009				
WP2.86 Buy PCI cards	May 2006	Achieved				
WP2.66 Present simulation results	Dec 2006	**Complete Apr 2007**				
WP2.17 Test bench 0 hardware ready and commissioned	Jan 2007	**Complete May 2007**				
WP2.40 Report on FPGA Ethernet work	Jan 2007	**Complete Apr 2007**				
WP2.56 Acquire optical switch	Mar 2007	**Complete May 2007**	Y	N	N	
WP2.90 Initial prototype complete	Mar 2007	**Achieved**				
WP2.70 Make proposal for robust/flexible system	Jun 2007	Jun 2007				
WP2.73 Demonstrate remote FPGA reset and reconfigure	Jun 2007	Jun 2007				
WP2.20 Concepts established for 1.5m data path	Jul 2007	Jul 2007				
WP2.7 Successful readout of 2007 ASICs	Sep 2007	**Retired**	N	Y	N	4
WP2.50 Component selection	Sep 2007	Sep 2007				
WP2.77 Demonstrate system	Sep 2007	Sep 2007				

lock and data interface						
WP2.94 Initial system complete	Dec 2007	Dec 2007				
WP2.23 Test bench 1 hardware ready and commissioned	Jan 2008	Jan 2008				
WP2.60 Demonstrate optically switched network	Jan 2008	Jan 2008				
WP2.43 Report on suitability of FPGAs for real-time conversion	Feb 2008	Feb 2008				
WP2.80 Demonstrate trigger can C + C interface	Jun 2008	Jun 2008				
WP2.27 Realistic design of VFE system established	Aug 2008	Aug 2008				
WP2.53 Report on 10Gb performance	Aug 2008	Aug 2008				
WP2.12 Successful readout of 2008 ASICs	Sep 2008	Sep 2008				
WP2.30 VFE design finished	Oct 2008	Oct 2008				
WP2.32 Freeze VFE system design	Dec 2008	Dec 2008				
WP2.34 Complete draft of TDR section	Feb 2009	Feb 2009				
WP2.64 Delivery of busy system	Mar 2009	Mar 2009				
WP2.83 Demonstrate work-ability from single trigger	Mar 2009	Mar 2009				
WP3.3 Preliminary design review	Apr 2006	Achieved				
WP3.5 First sensor interim design review	Oct 2006	**Complete Jan 2007**				
WP3.6 First sensor design review	Dec 2006	**Complete Mar 2007**	Y	N	Y	1
WP3.7 First sensor design to foundry	Jan 2007	**Complete Apr 2007**	Y	N	Y	1
WP3.9 First sensor fabrication complete	May 2007	**Expected Jul 2007**	Y	N	Y	1
WP3.14 Second sensor interim design review	Sep 2007	**Expected Dec 2007**	Y	N	Y	1
WP3.15 Second sensor design review	Dec 2007	**Expected Mar 2008**	Y	N	Y	1
WP3.16 Second sensor design to foundry	Jan 2008	**Expected Apr 2008**	Y	N	Y	1
WP3.18 Second fabrication complete	May 2008	**Expected Aug 2008**	Y	N	Y	1
WP3.24 Beam tests start	Oct 2008	**Expected Dec 2008**	Y	N	Y	1

WP4.13 Thermal simulation report	Jan 2006	Achieved				
WP4.4 Glue literature research report	Sep 2006	**Complete Jan 2007**	Y	N	N	
WP4.7 Report on glue ageing results	May 2007	**Achieved**				
WP4.17 Cooling system proposal	Apr 2008	Apr 2008				
WP4.25 Assembly design report	Mar 2009	Mar 2009				
WP5.14 Present initial result from single particle studies	Mar 2006	Achieved				
WP5.26 MAPS implemented in Mokka	May 2006	Achieved				
WP5.33 Status report at regional workshop	May 2006	Achieved				
WP5.4 Comparison of existing PFAs	Jun 2006	Achieved				
WP5.8 Release of V1 of algorithm	Aug 2006	Achieved				
WP5.34 Generic physics analysis implemented	Sep 2006	Achieved				
WP5.16 Present first physics benchmarks results at Valencia	Nov 2006	**Deleted**	Y	N	N	2
WP5.11 Presentation of physics benchmark results at LCWS07	Apr 2007	**May 2007**	N		N	3
WP5.36 Alternative benchmark analysis available	Sep 2007	Sep 2007				
WP5.24 First results from mechanical imperfections simulation	Dec 2007	Dec 2007				
WP5.28 Simulation of MAPS tets beam	Mar 2008	Mar 2008				
WP5.38 Report on hadronic modelling studies with test beam	Jun 2008	Jun 2008				

Notes:
1. Simulation studies showed that additional design work of a deep p-well process by the foundry was required to achieve the target signal:noise ratio.
2. Initial results were presented earlier to collaboration meetings and we decided to wait until LCWS07 before presenting further results.
3. LCWS07 date fixed as May 2007 after we had set this benchmark.
4. Phase 1 of ASIC development skipped by our collaborators.