Milestone Tables

Table 1. Milestones for the period Se	p 2006 – May	2007
WP1.19 Successful end of 2006	Oct 2006	Achieved
CERN test beam run		
WP1.27 Present interim results at	May 2007	Achieved
LCWS07		
WP2.66 Present simulation results	Dec 2006	Complete Apr 2007
WP2.17 Test bench 0 hardware	Jan 2007	Complete May 2007
ready and commissioned		
WP2.40 Report on FPGA Ethernet	Jan 2007	Complete Apr 2007
work		
WP2.56 Acquire optical switch	Mar 2007	Complete May 2007
WP2.90 Initial prototype complete	Mar 2007	Achieved
WP3.5 First sensor interim design	Oct 2006	Complete Jan 2007
review		
WP3.6 First sensor design review	Dec 2006	Complete Mar 2007
WP3.7 First sensor design to	Jan 2007	Complete Apr 2007
foundry		
WP3.9 First sensor fabrication	May 2007	Expected Jul 2007
complete		
WP4.4 Glue literature research	Sep 2006	Complete Dec 2006
report		
WP4.7 Report on glue ageing	May 2007	Achieved
results		
WP5.34 Generic physics analysis	Sep 2006	Achieved
implemented		
WP5.16 Present first physics	Nov 2006	Milestone deleted (see note 2 at
benchmarks results at Valencia		end)
WP5.11 Presentation of physics	Apr 2007	Achieved
benchmark results at LCWS07		

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

П	Table 3 – Ov	erall milestor	ne list			
	As at Sep	As at May	Delay due to		Affects	See
	2006	2007	UK?	Other	critical	note
		Changes		Collabor-	path?	
		in bold		ators?		
WP1.9 Successful end of DESY	May 2005	Achieved				
test beam run						
WP1.19 Successful end of 2006	Oct 2006	Achieved				
CERN test beam run						
WP1.27 Present interim results	May 2007	Achieved				
at LCWS07						
WP1.14 Complete analysis of	Jun 2007	Jun 2007				
DESY data						
WP1.20 Successful end of 2007	Jul 2007	Expected	Ν		Ν	
CERN test beam run		Aug 2007				
WP1.24 Submit paper on	Sep 2007	Sep 2007				
electron results						
WP1.29 Complete internal report	Dec 2007	Dec 2007				
on hadron data						
WP1.33 Successful completion	Jun 2008	Jun 2008				
of FNAL test beam run					-	
WP1.37 Submit paper on hadron	Mar 2009	Mar 2009				
results						
	N. 2006	A 1 · 1				
WP2.86 Buy PCI cards	May 2006	Achieved				
WP2.66 Present simulation	Dec 2006	Complete				
results	Les 2007	Apr 2007				
WP2.17 Test bench 0 hardware	Jan 2007	Complete				
ready and commissioned WP2.40 Report on FPGA	Jan 2007	May 2007				
Ethernet work	Jan 2007	Complete				
WP2.56 Acquire optical switch	Mar 2007	Apr 2007	Y	N	N	
wr2.30 Acquire optical switch	Wiai 2007	Complete May 2007	1	11	1	
WP2.90 Initial prototype	Mar 2007	Achieved				
complete	Wiai 2007	Acmeveu				
WP2.70 Make proposal for	Jun 2007	Jun 2007				
robust/flexible system	5un 2007	Jun 2007				
WP2.73 Demonstrate remote	Jun 2007	Jun 2007				
FPGA reset and reconfigure	2007	5 dii 2007				
WP2.20 Concepts established for	Jul 2007	Jul 2007				
1.5m data path		2007				
WP2.7 Successful readout of	Sep 2007	Retired	N	Y	N	4
2007 ASICs	1					
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	Jan 2008	Jan 2008				
ready and commissioned	Jan 2008	Jan 2008				
WP2.60 Demonstrate optically	Jan 2008	Jan 2008				
switched network	Jaii 2008	Jaii 2008				
	Feb 2008	Feb 2008				
WP2.43 Report on suitability of FPGAs for real-time conversion	Feb 2008	Feb 2008				
	Jun 2008	Jun 2008				
WP2.80 Demonstrate trigger can C + C interface	Juli 2008	Jun 2008				
	A	A 2000				
WP2.27 Realistic design of VFE	Aug 2008	Aug 2008				
system established	A 2000	A 2 000				
WP2.53 Report on 10Gb	Aug 2008	Aug 2008				
performance	G 2 000	G 2 000				
WP2.12 Successful readout of	Sep 2008	Sep 2008				
2008 ASICs	0.0000	0.0000				
WP2.30 VFE design finished	Oct 2008	Oct 2008				
WP2.32 Freeze VFE system	Dec 2008	Dec 2008				
design	F 1 2 000	F 1 2 000				
WP2.34 Complete draft of TDR	Feb 2009	Feb 2009				
section	16 2000					
WP2.64 Delivery of busy system	Mar 2009	Mar 2009				
WP2.83 Demonstrate work-	Mar 2009	Mar 2009				
ability from single trigger						
WP3.3 Preliminary design	Apr 2006	Achieved				
review	Api 2000	Acilieved				
WP3.5 First sensor interim	Oct 2006	Complete				
design review	001 2000	Jan 2007				
WP3.6 First sensor design	Dec 2006	Complete	Y	N	Y	1
review	Dec 2000	Mar 2007	1	11	1	1
WP3.7 First sensor design to	Jan 2007	Complete	Y	N	Y	1
foundry	Jan 2007	Apr 2007	1	1	1	1
WP3.9 First sensor fabrication	May 2007	Jul 2007	Y	N	Y	1
complete	1111 2007	Jui 2007	1	1	1	1
WP3.14 Second sensor interim	Sep 2007	Expected	Y	N	Y	1
design review	50p 2007	Dec 2007	1	1	1	1
WP3.15 Second sensor design	Dec 2007	Expected	Y	N	Y	1
review	Dec 2007	Mar 2008	1	1	1	1
WP3.16 Second sensor design to	Jan 2008	Expected	Y	N	Y	1
foundry	2000	Apr 2008	1			
WP3.18 Second fabrication	May 2008	Expected	Y	N	Y	1
complete	2000	Aug 2008	1			
WP3.24 Beam tests start	Oct 2008	Expected	Y	N	Y	1
		Dec 2008	1			1
		2000				
	1		I	I		

WP4.13 Thermal simulation	Jan 2006	Achieved				
report						
WP4.4 Glue literature research report	Sep 2006	Complete Jan 2007	Y	N	Ν	
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.