

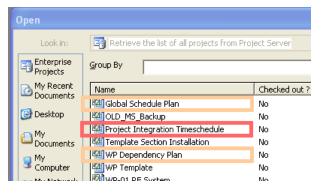
Photon Beamlines Installation Schedule

Status: 2012 KW19

open questions and conflicts

European XFEL

Project Integration Timeschedule PIT



	0	Task Name	Duration	Start	Finish	Free Slack	Total
0	٩.	Project Integration Timeschedule	########	#########	#########	0 dys?	0
1		Incoming ■	960 dys?	Mon 22.08.11	Mon 27.04.15	235 dys?	235
107							
108		Start Klystron Installation	1 dy?	Mon 01.04.13	Mon 01.04.13	0 dys?	494
109							
110		🗄 Injektor	761 dys?	Mon 02.07.12	Mon 01.06.15	209 dys?	209
189		🗉 Main Linac	*****	Mon 30.01.12	Wed 09.12.15	72,33 dys?	72,33
557		E Shaft Buildings	686 dys?	Mon 01.07.13	Mon 15.02.16	24 dys?	24
583		🗄 Dumps	808 dys?	Tue 02.10.12	Thu 05.11.15	96 dys?	96
596	1	Description Beamlines	1080 dys?	Mon 30.01.12	Fri 18.03.16	0 dys?	0
754							
755		Machine commissioning	10 dys	Wed 25.11.15	Wed 09.12.15	72,33 dys	72,3
757							
758		Instruments	300 dys	Tue 06.01.15	Mon 29.02.16	14 dys	1
765							
766		⊕ Outgoing	1190 dys?	Mon 22.08.11	Fri 11.03.16	5 dys?	5
868							
890							
944							

to have an overview of the scheduling of all the different parts of the project

to link the major / top level milestones to their constituent sub-projects

not meant for detailed planning

already 960 lines (944 + 16 top level milestones) in the PIT

- incoming milestones ca.100
- outgoing milestones ca. 180
- 79 for Injector (90 m)
- 388 for main Linac (2.1 km)
 - ca. 120 for infrastructure

ca. 230 for Linac

150 for Photon beamlines

(ca. 10 per tunnel)





Shifting completion dates



Milestones and tasks should not be pushed further

Current view of the PIT

	0	Task Name	Duration	Start	Finish	Predecessors	Half 1, 201	2	Half 2, 2012	Half 1, 2013	Half 2, 2013	Half 1, 2014	Half 2, 2014	Half 1, 2015	Half 2, 2015	Half 1	,2016 H
	, U						JFMA	ΜJ	JASOND	JFMAM	JJASOND	JFMAN	Half 2, 2014	JFMAM	JJASONE	JFI	A M J J
0		Project Integration Timeschedule	########	##########	##########					: 	1	1		1	-		
1		Incoming	960 dys?	Mon 22.08.11	Mon 27.04.15			-									
100		Start Klystron Installation	1 dy?	Mon 01.04.13	Mon 01.04.13					I							
101																	
102		🛨 Injektor	-		Mon 01.06.15			U U	/						,		
181		🛨 Main Linac	******	Mon 30.01.12	Wed 09.12.15										+	2	
549		🛨 Shaft Buildings	686 dys?	Mon 01.07.13	Mon 15.02.16						÷			1			
575		🗄 Dumps	808 dys?	Tue 02.10.12	Thu 05.11.15				-								
588	1	🛨 Photon Beamlines	1080 dys?	Mon 30.01.12	Fri 18.03.16									1			e
742		Experiments	66 dys?	Mon 30.11.15	Mon 29.02.16												
750																	
751		🗄 Outgoing	1190 dys?	Mon 22.08.11	Fri 11.03.16			-						-			2
853								1 1									

PBS-Installation Plan from one year ago

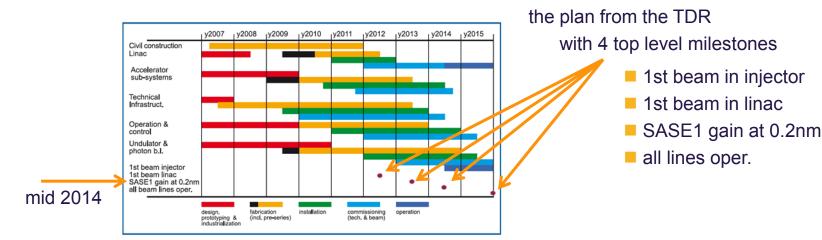
	Name	Dauer	Start	Ende	Half 1, 2012	Ha	alf 2, 2012	Half 1, 2013	Half 2, 2013	Half 1, 2014	Half 2, 2014	Half 1, 2015	Half 2, 2015	Half 1, 2	
	 Hame	Daaci	Start	LINGC	<u>]]] F M A </u>	<u> (</u>	la Is lo IN ID	<u>, jj je im ja im i</u>	J J A S O N D	<u>i) if im ia im i)</u>	<u>l</u> a la lo ln ld	J F M A M J	i ji la Is lo IN ID	J IF IM	ונו נו או או
1	Incoming Milestones	960 tage	25.10.11 08:00	30.06.15 08:00									÷.		
2	⊡Civil Construction	699 tage	25.10.11 08:00	30.06.14 08:00							•				
23		171 tage	23.06.14 08:00	17.02.15 08:00							-				
39	⊞LINAC Milestones	0 tage	30.06.15 08:00	30.06.15 08:00									V 30.06.15		
41	⊞Outgoing Milestones	200 tage	08.04.15 17:00	13.01.16 17:00											
46	□Installation Activities	1.102 tage	25.10.11 08:00	13.01.16 17:00											
47	⊞Initial Survey	602 tage	25.10.11 08:00	12.02.14 17:00											
59	⊞Infrastructure	230 tage	02.01.14 08:00	19.11.14 17:00						÷					
69	⊡Undulators	260 tage	23.06.14 08:00	19.06.15 17:00							-		V		
78		267 tage	17.04.14 08:00	24.04.15 17:00											
87		274 tage	29.04.14 08:00	15.05.15 17:00						· · · ·					
91		74 tage	03.02.15 08:00	15.05.15 17:00											
95		400 tage	03.07.14 08:00	13.01.16 17:00							-			-	

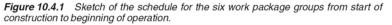


Top Level Milestones



2016

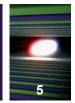




Half 2, 2012 Half 1, 2015 Half 2, 2015 0 Task Name Duration Start Finish Free Slack Total Slack redecessor Half 1, 2012 Half 1, 2013 Half 2, 2013 Half 1, 2014 Half 2, 2014 Half 1, 2016 J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J 929 930 First beam to Injector Dump a top level milestone collection 931 First beam to Main Dump 932 First e-beam to XSDU1 0 dys Fri 04.12.15 Fri 04.12.15 25 dys 75 dys 573;667;580 ۵. 933 First e-beam to XSDU2 0 dys Fri 23.10.15 Fri 23.10.15 35 dys 105 dys 566;656;588 from the PIT 92 First SASE1 Photons in XHEXP1 0 dys Fri 11.12.15 Fri 11.12.15 0 dys 70 dys 933;831 ³³⁵end 2015 First SASE2 Photons in XHEXP1 932;818 0 dys Fri 08.01.16 Fri 08.01.16 0 dys 50 dys 11.03 First SASE3 Photons in XHEXP1 0 dys Fri 11.03.16 Fri 11.03.16 0 dys 5 dys 933;836 1st e-beam in XSDU2 937 27. SASE1 Instruments ready for beam 0 dys Thu 27.08.15 Thu 27.08.15 77 dys 147 dys 850 938 0 dys 246 dys 296 dys 848 SASE2 Instruments ready for beam Fri 30.01.15 Fri 30.01.15 1st SASE1 photons in XHEXP1 939 SASE3 Instruments ready for beam 0 dvs Fri 25.09.15 Fri 25.09.15 121 dvs 126 dvs 852 940 SASE1 Instruments ready for user operation Fri 11.12.15 Fri 11.12.15 65 dys 70 dys 934;937 0 dvs 941 938;935 SASE2 Instruments ready for user operation 0 dys Fri 08.01.16 Fri 08.01.16 45 dys 50 dys SASE1 instrument ready for user 11.03 942 SASE3 Instruments ready for user operation 0 dys Fri 11.03.16 Fri 11.03.16 0 dys 5 dys 939;936 943 First Lasing Possible 944 End of Construction 945 User Operation







A recent look at the critical path in the PIT

0	Task Name	Duration	Start	Finish	Predecessors	Half 1,	2012	Half 2	,2012	Half '	1,2013	Half 2	,2013	Half	1,2014	Half 2,	2014	Half 1	1,2015	H	lalf 2, 20	015	Half 1	1,2016 H
- T						JFN	1 A M	JJA	SONI	DJF	MAM	JJA	SONE) J F	MAM	JJAS	OND	JF	MAN	1 J J	AS	O N D	JF	MAMJ
669 🍥	XTD6 (SASE2) for (MID/HED)	876 dys?	Fri 09.11.12	Fri 18.03.16						-			_				-	—						-
670	initial survey (WP32)	42 dys	Fri 09.11.12	Mon 07.01.13	37				- Ye=	- 1		-	-											
671	mounting of reference marks	7 dys	Fri 09.11.12	Mon 19.11.12					- b	\square														
672	1st passage	22 dys	Tue 20.11.12	Wed 19.12.12	671				_ č	h														
673	2nd passage	13 dys	Thu 20.12.12	Mon 07.01.13	672					ŭ.		1												
674 🤣	Infrastructure Installation (VVP34)	12 mons	Mon 03.11.14	Fri 02.10.15	670;73												- Č	÷						
675	Personnel Interlock (WP-38)	40 dys?	Mon 05.10.15	Fri 27.11.15	674																			
676	DAQ Installation (SASE2)	240 dys	Mon 20.04.15	Fri 18.03.16	674SS+6 mons													—	N				1	-
677 🛅 🍥	minimal system	6 mons	Mon 20.04.15	Fri 02.10.15																				
678 🛅 🍥	preoperational system	6 mons	Mon 05.10.15	Fri 18.03.16	677													7			1		<u>.</u>	
679 🍥	PBL sase2 Inst. WP-73	20 wks	Mon 10.08.15	Fri 25.12.15	/s;674SS+10 mons												4				×		Ъ	
680	PB diag	60 dys?	Mon 05.10.15	Fri 25.12.15	674																			
681	PB tests and commissioning	10 dys	Mon 28.12.15	Fri 08.01.16	679																		ĥ	
682		1 dy	Mon 11.01.16	Mon 11.01.16	681																		Ĭ	
000 A		· .	•• •• •• ••	T 05 00 45												-								

long pauses between activities

even arbitrarily introduced overlaps don't slacken the situation

XFEL Top Level SASE1 Depends on SASE3

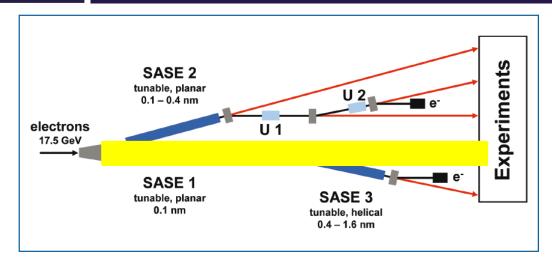
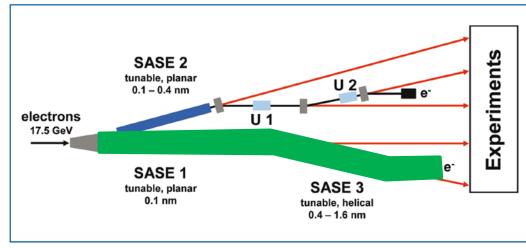


Figure 4.2 Schematic view of the branching of electron (black) and photon (red) beamlines through the different SASE and spontaneous emission undulators. Electron beamlines terminate in the two beam dumps and photon beamlines in the experimental hall. (from TDR)



SASE 1 Photon Beamline



SASE 1&3 Electron Beamline

XS1
XTD2

XS3

XTD4

XSDU2



SASE 1&3 Photon Tunnels, Completion in Parallel



SASE1

	0	Task Name	Duration	Start	Finish	Predecessors	Ha	lf 1, 2	2012	Hal	f 2, 201	2	Half 1, 2	013	Half 2,	2013	Halt	1,201	14	Half 2, 2014	Half	,2015	Ha	alf 2, 2	2015	Hal	f1,2016 H
	Ŭ						J	F M	ΑM	JJA	S O	ND	JFM/	4 M J	JAS	6 O N I	DJF	MA	MJ	JASON	DJF	MAM					FMAMJJ
703	1	XTD9 (SASE1) for (SPB/FXE)	1001 dys?	Fri 30.03.12	Fri 29.01.16																			+++-			
704		initial survey (WP32)	34 dys	Fri 30.03.12	Wed 16.05.12	40		1						-		_		h									
705		mounting of reference marks	5 dys	Fri 30.03.12	Thu 05.04.12				H																		
706		1st passage	18 dys	Fri 06.04.12	Tue 01.05.12	705			Ŏ.																		
707		2nd passage	11 dys	Wed 02.05.12	Wed 16.05.12	706			Ĭ																		
708	6	Infrastructure Installation (VVP34)	15 mons	Mon 03.03.14	Fri 24.04.15	704;71																					
709		Personnel Interlock (VVP-38)	40 dys?	Mon 27.04.15	Fri 19.06.15	708						V															
710		DAQ Installation (SASE1)	240 dys	Mon 02.03.15	Fri 29.01.16	708SS+13 mons						А															
711	💷 终	minimal system	6 mons	Mon 02.03.15	Fri 14.08.15																						
712	🎫 终	preoperational system	6 mons	Mon 17.08.15	Fri 29.01.16	711																					
713	ø	PBL sase1 installation WP-73	39 wks	Mon 02.03.15	Fri 27.11.15	708SS+13 mons												Ч						曲	₩		
714		PB diag sase1 WP-74	60 dys?	Mon 27.04.15	Fri 17.07.15	708																					
715		tests & Commissioning	10 dys	Mon 30.11.15	Fri 11.12.15	713																				A	
716		-	1 dy?	Mon 14.12.15	Mon 14.12.15	715																					
TAT	-a		4004 1 0					1 L		1		1					1		1		1						

SASE3

	0	Task Name	Duration	Start	Finish			lf 1, 201		Half 2, 20		Half 1		Half 2,		Half 1			lalf 2, 2014		, 2015		alf 2, 2			1,2016
	-						J	F M A	ΜJ	JASO	D N D	JFN	1 A M J	JAS	OND	JFI	A N	I J J	ASOND	JF	MAM	JJ	AS	ONI	JJF	MAMJ
717	1	XTD10 (SASE3) for (SQS/SCS)	1031 dys?	Mon 02.04.12	Mon 14.03.16							-								-						
718		🖃 initial survey (WP32)	13 dys	Mon 02.04.12	Wed 18.04.12	41		1	h III							t h										
719		mounting of reference marks	2 dys	Mon 02.04.12	Tue 03.04.12			- N																		
720		1st passage	7 dys	Wed 04.04.12	Thu 12.04.12	719		- I																		
721		2nd passage	4 dys	Fri 13.04.12	Wed 18.04.12	720		Ì																		
722	6	Infrastructure Installation (VVP34)	15 mons	Mon 03.03.14	Fri 24.04.15	718;71										1	Ť	-								
723		Personnel Interlock (VVP-38)	40 dys?	Mon 27.04.15	Fri 19.06.15	722																				
724		DAQ Installation (SASE3)	240 dys	Mon 02.03.15	Fri 29.01.16	722SS+13 mons										-				- 14						
725	💷 终	minimal system	6 mons	Mon 02.03.15	Fri 14.08.15								-							(
726	🛅 🍥	preoperational system	6 mons	Mon 17.08.15	Fri 29.01.16	725																				
727	6	PBL sase3 Inst. WP-73	52 wks	Mon 02.03.15	Fri 26.02.16	722SS+13 mons														×						h
728		PB diag sase3	60 dys?	Mon 27.04.15	Fri 17.07.15	722																				
729		Tests & Commissioning	10 dys	Mon 29.02.16	Fri 11.03.16	727																				ĥ
730		-	1 dy?	Mon 14.03.16	Mon 14.03.16	729																				Ĭ
704																		1		1			111	11111	0.1	111 1



SASE 1&3 Electron Tunnels, Successive Installation



SASE1

	0	Task Name	Duration	Start	Finish	Free Slack				Half 2, 20 LIAISIO	Half 1, 2013	Half 2,	Half 1, 2		Half 2, 2014	Half 1, 2015	Half 2, 2015 J J A S O N D	Half 1, 2016 H
617	6	XTD2 (SASE1) (Undu)	826 dys?	Wed 29.02.12	Wed 29.04.15	232 dys?							• 1					
618	6	🖃 initial survey (WP32)	38 dys	Wed 29.02.12	Fri 20.04.12	0 dys	580 dy	₩	,									
619		mounting of reference marks	6 dys	Wed 29.02.12	Wed 07.03.12	0 dys	580 dy	h										
620		1st passage	20 dys	Thu 08.03.12	Wed 04.04.12	0 dys	580 dy	<u> </u>										
621		2nd passage	12 dys	Thu 05.04.12	Fri 20.04.12	580 dys	580 dy	ď										
622	6	Infrastructure Installation (/VP34)	8 mons	Mon 01.07.13	Fri 07.02.14	0 mons	13,5 mor					**	_					
623		Personnel Interlock (VVP-38)	40 dys?	Mon 10.02.14	Fri 04.04.14	0 dys?	270 dy:							h				
624		DAQ Installation (SASE1)	247 dys	Mon 07.04.14	Tue 17.03.15	263 dys	263 dy) —				
625	🔢 🍥	minimal system	6 mons	Mon 07.04.14	Fri 19.09.14	0,35 mons	13,5 mor											
626	🔢 🍥	preoperational system	6 mons	Wed 01.10.14	Tue 17.03.15	13,15 mons	13,15 mor								—			
627		Machine Installation	5 mons	Mon 10.02.14	Fri 27.06.14	0 mons	17 mor						- Č		1			
628		EB magnets sase1	50 dys?	Mon 10.02.14	Fri 18.04.14	45 dys?	340 dy:						4					
629		intersections sase1	50 dys?	Mon 23.06.14	Fri 29.08.14	0 dys?	295 dy:											
630		EB vac sase1	20 dys?	Mon 01.09.14	Fri 26.09.14	63 dys?	295 dy:								<u>ă</u>			
631	6	Undulators (SASE1)	1 mon	Thu 25.12.14	Wed 21.01.15	0 mons	11,6 mor									τa Ι		
632		Undulator Alingnment (SASE1)	1 mon	Thu 22.01.15	Wed 18.02.15	0 mons	11,6 mor									à.		
633		Undulator Test of Control Syst. (SASE1)	2 mons	Thu 19.02.15	Wed 15.04.15	0 mons	11,6 mor											
634		Machine test & commissioning XTD2	10 dys	Thu 16.04.15	Wed 29.04.15	127 dys	232 dy									0		
635		WP-73 PBL sase1 Inst. (XTD2/XS3)	30 wks	Mon 10.02.14	Fri 05.09.14	0 wks	79,8 wl								<u> </u>			
606				Mar. 00.00.44	Mar 00.00.4.4	200.4.14	200 4			I		1			•			

SASE3

	0	Task Name	Duration	Start	Finish	Free Slack	Total Slac	Half 1, 2012	Ha Juliu	Half 1, 2013	Half 2, 2013	Half 1, 2		Half 2, 2014	Half 1, 2015			Half 1, 2016
647		XTD4 (SASE3) (Undu)	980 dys?	Mon 30.04.12	Fri 29.01.16	35 dys?	35 dys									1.4		
648	-	⊟ initial survey (WP32)	19 dys	Mon 30.04.12	Thu 24.05.12	0 dys	496 dy	400										
649		mounting of reference marks	3 dys	Mon 30.04.12	Wed 02.05.12	0 dys	496 dy											
650		1st passage	10 dys	Thu 03.05.12	Wed 16.05.12	0 dys	496 dy	Ŭ,										
651		2nd passage	6 dys	Thu 17.05.12	Thu 24.05.12	496 dys	496 dy	1										
652	1	Infrastructure Installation (WP34)	13 mons	Mon 03.03.14	Fri 27.02.15	0 mons	1,75 mor											
653		Personnel Interlock (VVP-38)	40 dys?	Mon 02.03.15	Fri 24.04.15	235 dys?	235 dy:											
654		DAQ Installation (SASE3)	240 dys	Mon 02.03.15	Fri 29.01.16	35 dys	35 dy								, Č	-		
655	🔳 🍥	minimal system	6 mons	Mon 02.03.15	Fri 14.08.15	0 mons	1,75 mor										_ _	
656	🔳 🍥	preoperational system	6 mons	Mon 17.08.15	Fri 29.01.16	1,75 mons	1,75 mor											
657		Machine Installation	5 mons	Mon 05.01.15	Fri 22.05.15	0 mons	5,25 mor											
658		EB magnets sase3	50 dys?	Mon 05.01.15	Fri 13.03.15	0 dys?	105 dy:			$\mathbf{D4}$				l (O			
659		intersections sase3	50 dys?	Mon 16.03.15	Fri 22.05.15	0 dys?	105 dy:									h		
660		EB vac sase3	20 dys?	Mon 25.05.15	Fri 19.06.15	0 dys?	105 dy:									Č.		
661		Undulator (SASE3)	1 mon	Mon 22.06.15	Fri 17.07.15	0 mons	5,25 mor									C	D	
662		Undulator Alignment (SASE3)	1 mon	Mon 20.07.15	Fri 14.08.15	0 mons	5,25 mor										Δ ₁	
663		Undulator Test of Contr.Syst. (SASE3)	2 mons	Mon 17.08.15	Fri 09.10.15	0 mons	5,25 mor											
664		Machine test & commissioning XTD4	10 dys	Mon 12.10.15	Fri 23.10.15	0 dys	105 dy										ú	
665		WP-73 PBL sase3 Inst.	52 wks	Mon 05.01.15	Fri 01.01.16	0 wks	10,8 wl											h
666			. او الا	M 04 04 40	M 04 04 40	F.A1	~ A - A-	1			1	1	1	1			1	• I





SASE 1

electron beamline

	0	Task Name	Duration	Start	Finish		Half 1				Half 1, 2013	Half 2, 2013	Half 1, 2			Half 1, 2015		2,2015		1,2016 H
							JF	MA	λMJ	JASOND	JFMAMa	JASOND	JFM	AMJ	JASOND	JFMAN	1 J J A	SON	DJF	MAMJ
609		TTD2 (SASE1) (Undu)	826 dys?	Wed 29.02.12	Wed 29.04.15				—				_		+					
610	1	Initial survey (WP32) Initial survey Initial I	38 dys	Wed 29.02.12	Fri 20.04.12	33	9							1						
614	1	Infrastructure Installation (MP34)	8 mons	Mon 01.07.13	Fri 07.02.14	610;70							📥 丨	1						
615		Personnel Interlock (WP-38)	40 dys?	Mon 10.02.14	Fri 04.04.14	614								h						
616		DAQ Installation (SASE1)	247 dys	Mon 07.04.14	Tue 17.03.15	615									<u> </u>	+				
619		Machine Installation	5 mons	Mon 10.02.14	Fri 27.06.14	614														
620		EB magnets sase1	50 dys?	Mon 10.02.14	Fri 18.04.14	619SS						-	4							
621		intersections sase1	50 dys?	Mon 23.06.14	Fri 29.08.14	78;620						/		1 🏅						
622		EB vac sase1	20 dys?	Mon 01.09.14	Fri 26.09.14	621;80								1	ă – – – – – – – – – – – – – – – – – – –					
623		Undulators (SASE1)	1 mon	Thu 25.12.14	Wed 21.01.15	622;87										Č,				
624		Undulator Alingnment (SASE1)	1 mon	Thu 22.01.15	Wed 18.02.15	623								1		Ъ.				
625		Undulator Test of Control Syst. (SASE1)	2 mons	Thu 19.02.15	Wed 15.04.15	624								1						
626		Machine test & commissioning XTD2	10 dys	Thu 16.04.15	Wed 29.04.15	625								1		Ĭ				
627		WP-73 PBL sase1 Inst. (XTD2/XS3)	30 wks	Mon 10.02.14	Fri 05.09.14	614														
628		-	1 dy	Mon 08.09.14	Mon 08.09.14	627								1	ľ					
		_		-	-		1		_	-	-		-			-				

photon beamline

	0	Task Name	Duration	Start	Finish	Predecessors	Half 1, 2012	Half 2, 2012	Half 1, 2013	Half 2, 2013	Half 1, 2014	Half 2, 2014 Ha	lf 1, 2015	Hal	f 2, 2015	Half 1, 2016
		Tusk Northe	Duration	Start	1 II IIoII	FIGUEGESSUIS		JJASOND					FMAM			JFMAMJ
703		XTD9 (SASE1) for (SPB/FXE)	1001 dys?	Fri 30.03.12	Fri 29.01.16											-
704		🖃 initial survey (WP32)	34 dys	Fri 30.03.12	Wed 16.05.12	40	₩₽₩₽									
705		mounting of reference marks	5 dys	Fri 30.03.12	Thu 05.04.12		L L									
706		1st passage	18 dys	Fri 06.04.12	Tue 01.05.12	705	Ŭ.									
707		2nd passage	11 dys	Wed 02.05.12	Wed 16.05.12	706	l l l l l l l l l l l l l l l l l l l									
708	1	Infrastructure Installation (VVP34)	15 mons	Mon 03.03.14	Fri 24.04.15	704;71										
709		Personnel Interlock (WP-38)	40 dys?	Mon 27.04.15	Fri 19.06.15	708										
710		DAQ Installation (SASE1)	240 dys	Mon 02.03.15	Fri 29.01.16	708SS+13 mons										-
711	1	ninimal system	6 mons	Mon 02.03.15	Fri 14.08.15					4						
712	🖽 🤌	preoperational system	6 mons	Mon 17.08.15	Fri 29.01.16	711										
713	1	PBL sase1 installation WP-73	39 wks	Mon 02.03.15	Fri 27.11.15	708SS+13 mons										
714		PB diag sase1 WP-74	60 dys?	Mon 27.04.15	Fri 17.07.15	708										
715		tests & Commissioning	10 dys	Mon 30.11.15	Fri 11.12.15	713										
716		-	1 dy?	Mon 14.12.15	Mon 14.12.15	715										
747	~			•• •• ••	•• ••••			1	1							





The Experimental Hall

- currently no detailed planning
- but instrument set up should start early
- infrastructure should be available as soon as possible

	0	Task Name	Duration	Start	Finish	Free Slack					Half 1, 2014	Half 2, 2014	Half 1, 2015	Half 2, 2015	Half 1, 2016 H
739		= XHEXP1	702 dvs	E-1 24 0C 42	Mon 29.02.16	14 dvs	14 dy	JASOND	JFMAMJ	JASOND	JFMAM	JJJASON	DJFMAM	JJASONE	JFMAMJJ
740							-			1					
		initial survey (VVP32)	30 dys		Thu 01.08.13	0 dys	186 dy								
741	1	Infrastructure Installation	,		Mon 05.01.15	0 dys	14 d)					1.0			
742		Hutch Infrastructure	-		Mon 12.10.15	14 dys	14 dy								
743		SASE 1 (hutch)	'		Mon 05.01.15	0 dys	14 dy			h ahaa		Ч			
744		SASE 2 (hutch)			Mon 25.05.15	0 dys	14 d)		HU	tches	5				
745		SASE 3 (hutch)	100 dys	Tue 26.05.15	Mon 12.10.15	0 dys	14 d)								
746		DAQ Installation Experimental Hall	300 dys	Tue 06.01.15	Mon 29.02.16	14 dys	14 dy						÷		
747		SASE1 minimal	100 dys	Tue 06.01.15	Mon 25.05.15	0 dys	14 dy								
748		SASE2 minimal	100 dys	Tue 26.05.15	Mon 12.10.15	0 dys	14 dy								
749		SASE3 minimal	100 dys	Tue 13.10.15	Mon 29.02.16	14 dys	14 dy								
750		Laser System	300 dys	Tue 06.01.15	Mon 29.02.16	14 dys	14 dy						÷		
751		SASE1	100 dys	Tue 06.01.15	Mon 25.05.15	0 dys	14 dy								
752		SASE2	100 dys	Tue 26.05.15	Mon 12.10.15	0 dys	14 dy								
753		SASE3	100 dys	Tue 13.10.15	Mon 29.02.16	14 dys	14 dy								
754															
755		+ Machine commissioning	10 dys	Wed 25.11.15	Wed 09.12.15	72,33 dys	72,33 dy							.)
757															
758		🗆 Instruments	300 dys	Tue 06.01.15	Mon 29.02.16	14 dys	14 dy								
759		MID (SASE2)	100 dys	Tue 26.05.15	Mon 12.10.15	0 dys	114 dy								
760		HED (SASE2)	100 dys	Tue 26.05.15	Mon 12.10.15	0 dys	114 dy						1		
761		SPB (SASE1)	100 dys	Tue 06.01.15	Mon 25.05.15	67 dys	214 dy		Inc	trum	onto		t in the second	<u> </u>	
762		FXE (SASE1)	100 dys	Tue 06.01.15	Mon 25.05.15	67 dys	214 dy		1115	trum					
763		SQS (SASE3)	100 dys	Tue 13.10.15	Mon 29.02.16	0 dys	14 dy						T I		
764		SCS (SASE3)	100 dys	Tue 13.10.15	Mon 29.02.16	0 dys	14 d)								
765														🤟 🚽	
													_		

connecting to top level milestones

Infrastucture

2015



Useful Hints for a Useful PIT

What we need and what is important to gain reliable and serious information from the PIT:

- up to date data about expected task completion
- information about subtasks, after which other WPs can begin with their work
- information about prerequisites which have to be fulfilled, before a WP can begin
- WP planers should keep in mind, that work which can be done earlier, should be done earlier. (No use having everyone at the same time in the tunnel ... shortly before commissioning.)
- WPs whose tasks might be pushed to an uncomfortably late date should insist on "latest start" dates