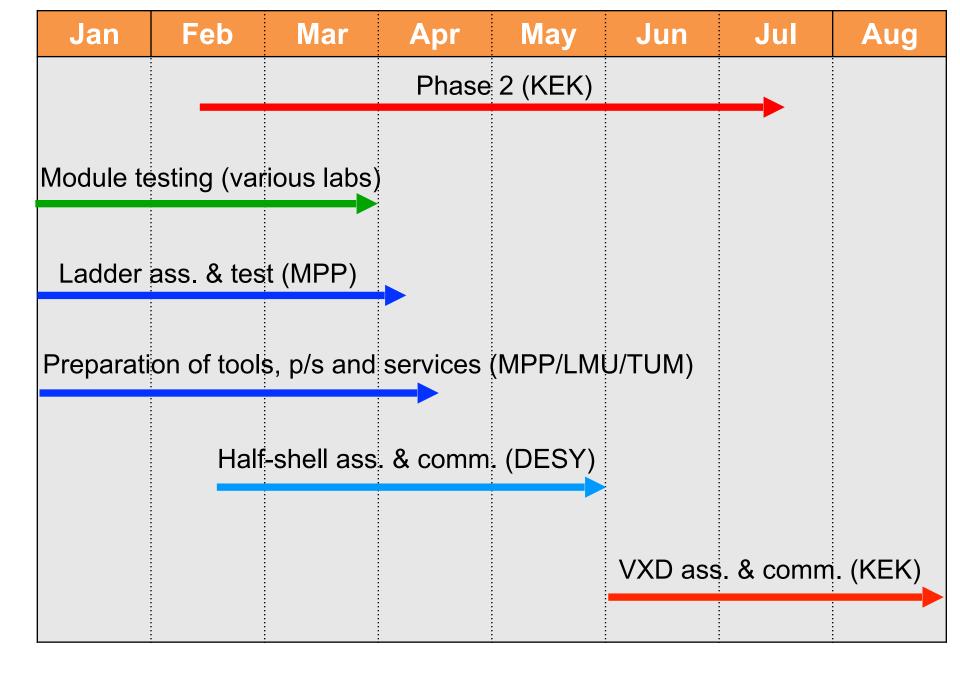
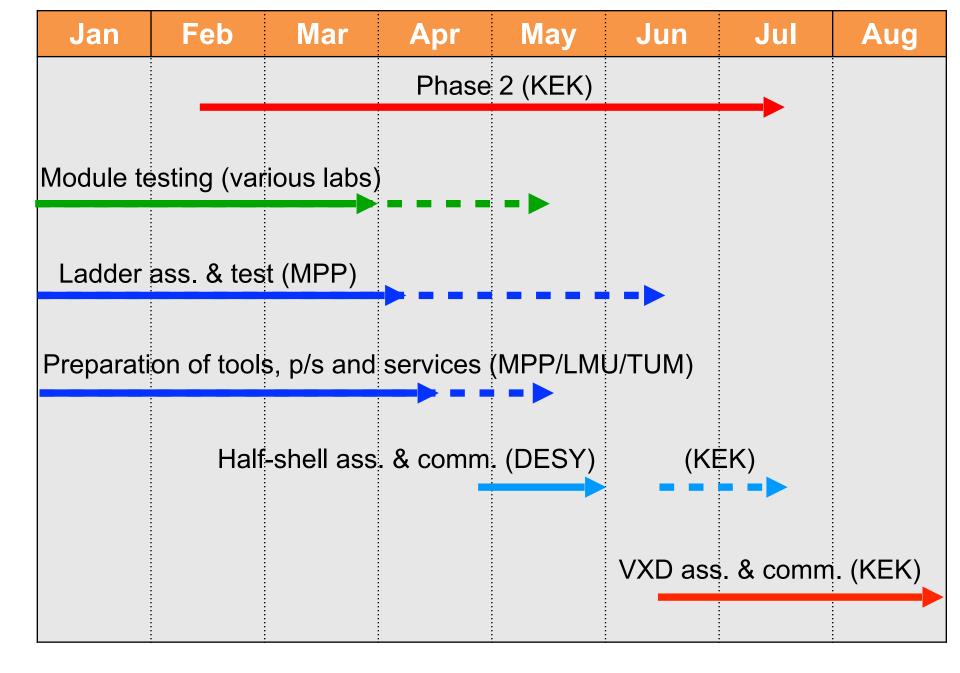
IB Issues

- Installation Scenarios
- PXD Responsibilities at KEK





PXD Installation Scenarios

A: have both L1 half shells at KEK by mid June and install all L2 ladders there

- availability of technicians and of clean working space at KEK

- A': have both L1 half shells at KEK by mid June with some L2 ladders already mounted. Rest to be installed at KEK
 - availability of technicians and of clean working space at KEK
- A": in case we can't solve the L2 glueing issue in time: install L2 modules
 - availability of technicians and of clean working space at KEK
 - unclear impact on performance (acceptance, alignment, vibrations etc.)
- B: send only one L1 half shell to KEK by mid June and continue to work on second half shell in Germany
 - need test equipment in Germany and at KEK at the same time
 - + more flexible, can work in parallel, easier access to technicians
- C: finish both half shells in Germany and arrive at KEK a few weeks later
 - impact on schedule
 - + availability of technicians
 - + better ability to react to unforeseen problems
- Z: de-scoping scenario: install PXD L1 only
 - significant performance degradation: need to quantify with MC study!
 - very bad for our reputation; unclear when next chance to install L2
 - + gain time, more relaxed space requirements \rightarrow installation less demanding

Implications on Schedule

Phase 3 installation schedule v1.2 (K.Gadow): compatible with start in February 2019

https://confluence.desy.de/display/BI/VXD+WebHome#VXDWebHome-Installationschedule

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Month	Apr			Ма	iy 🗌			Ju	n			Ju	ıl		Aι	ıg			Se	∋p			Oct				N٥	/			De	С	
Calender Week	15 16 17	0	19	20	21	22	23	24	25	26	27	28	29	31	33	34 00	35	36	37	38	39	7 t	41 47	43	44	45	46	47	48	49	50	51 52	
Belle II																																	
BEAST II removal]
CDC repair																																	
Outer cable installation																																	
VXD installation																																	
VXD system test																																	
Move QCS in & close RVC																																	

Implications on Schedule

Phase 3 installation schedule v1.2 (K.Gadow): compatible with start in February 2019

https://confluence.desy.de/display/BI/VXD+WebHome#VXDWebHome-Installationschedule

Month	Apr	Μ	ay		Jun			Jul			A	ug			Se	р		00	ct			N	ov			De	ec	
Calender Week	15 16 17	18 19	20 21 22	23	25	26	27	28 29	30	31	32	33 34	35	36	37	38 39	40	41	42	43	44 7		46	41	49	50	51	70
Belle II																												
BEAST II removal																												
CDC repair																												
Outer cable installation																												
VXD installation																												
VXD system test																			1									
Move QCS in & close RVC																												
B4 Clean Room																												
PXD installation and test																												
Combine SVD and PXD																												
VXD commissioning																												

Implications on Schedule

Phase 3 installation schedule v1.2 (K.Gadow): compatible with start in February 2019

https://confluence.desy.de/display/BI/VXD+WebHome#VXDWebHome-Installationschedule

Month	Apr			Ma	ay			Jun			Ju	JI		Aug			S	Sep			Oct				Nov	/		De	ec	٦
Calender Week	-	17	18		21	22			26	27		29 30	31	-	35	36		80	39	40	41		44				49 49		51	52
Belle II																														
BEAST II removal																														
CDC repair																														
Outer cable installation																														
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VXD system test																						↑								
Move QCS in & close RVC																														
B4 Clean Room																														
PXD installation and test																						Г								
Combine SVD and PXD								T																						
VXD commissioning																														
MPP																														
HS1 (L1 dummies) transport to DESY																														
Mounting of L1 ladders on HS2																														
Glueing of last L1 ladder(s)																														
Mounting of L1 ladders on HS1																														
L2 ladder glueing: 2 per week	2		6		12		1	8																						
DESY																														
Mount HS1 (L1 dummies) on beam pipe																														
Test L1 on HS2 at DESY																														
Test L1 on HS1 at DESY																														
Mount L2 ladders on HS1 and test ??																														
Transport to KEK																														

Tentative Planning of Expert Coverage at KEK

		Febr	uary			ľ	Marcl	h			Apr	il		May					June 23 24 25 26				Ju	ıly			A	Jgust			Sept	embe	er		0	ctober	r		No	vemb	er	I	Decer	nber	
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Felix (MPP)																																													
Philipp L.																																													
Hendrik																																													
Martin																																													
Christian Ko.																																													
Botho																																													
Florian																																													
Carlos																																													
Philipp W.																																													
Harrison																																													
Benjamin																																													
Hua																																													
Felix (DESY)							N/A																																						
Miguel-Angel																																													
Björn																																													
Pablo																																													
main focus	Cha	racter	izatio	on						DES	Y								KE	<																									
Activities @ KEK	Pha	se 2						Inje	ctions			C	ollisio	ns?																	Inst	tallatio	on of	outer	cable	s		VXD i	nstalla	ation		VXD	test		
ACUVILIES @ KEK																			Inst	all an	id con	nmiss	ion F	YD in	B4 (lean i	room	a	dd SV	D VX	D cor	nmiss	sionin	g											

- Must include technicians
- Have to stay flexible
- Work out details
 - Can L2 ladders be mounted on the beam pipe?
 - How can we use ARICH clean room?
 - What are the test procedures?
 - What preparations are needed?

PXD Responsibilities at KEK

- Carlos did a great job as "PXD Installation and Commissioning Leader" for phase 2
 - assisted by highly motivated and hard working students
- After assuming new responsibilities as deputy run coordinator in February he will not be able to continue in his previous role for phase 3
- Also the task profile will change for phase 3. Therefore we propose a split of responsibilities:
 - Operations Leader (DAQ, SC, DQM, performance studies, ...)
 - Commissioning Leader (activities in clean room, module operation, commissioning, …)
- Both jobs require experienced, well integrated and widely accepted person
- Operation Leader should be nominated before start of phase 2 luminosity data taking
 - proposal to appoint Björn Spruck for this important task
 - he already is part of the "extended" CDAQ team at KEK
- Before officially appointing Commissioning Leader
 - give Felix Müller (MPP) the chance to establish himself at KEK
 - initially Belle II management would like to see a more experienced person in the background