

VXD Installation and Commissioning Plan and Schedule from End of Phase 2 to Start of Phase 3

P.Krizan, C.Schwanda, C.Niebuhr

VXD Assembly and Test in B4 Clean Room

- New phase 3 beam pipe ready by end of March
 - mounting and alignment on granite table takes ~1 month
- SVD assembly @ B1
 - 1st half-shell completed by end of Feb => test functionality in B4 CR
 - 2nd half-shell completed by end of April => test functionality in B4 CR
- PXD @ KEK end of May / beginning of June
 - need 10 weeks for installation on beam pipe and test of half-shells
 - ▶ mid August
 - then 2 weeks for SVD half-shell mounting and closing of VXD volume
 - ▶ end of August
- Extended test of the full VXD system in B4 clean room
 - 4 weeks cosmic run: check thermal performance, burn-in test
 - ▶ end of September
 - collect data for reconstruction (useful for pre-alignment)
 - ▶ needs availability of trigger/DAQ/software
- VXD ready for installation: **beginning of October**

PXD Mounting and Test Schedule

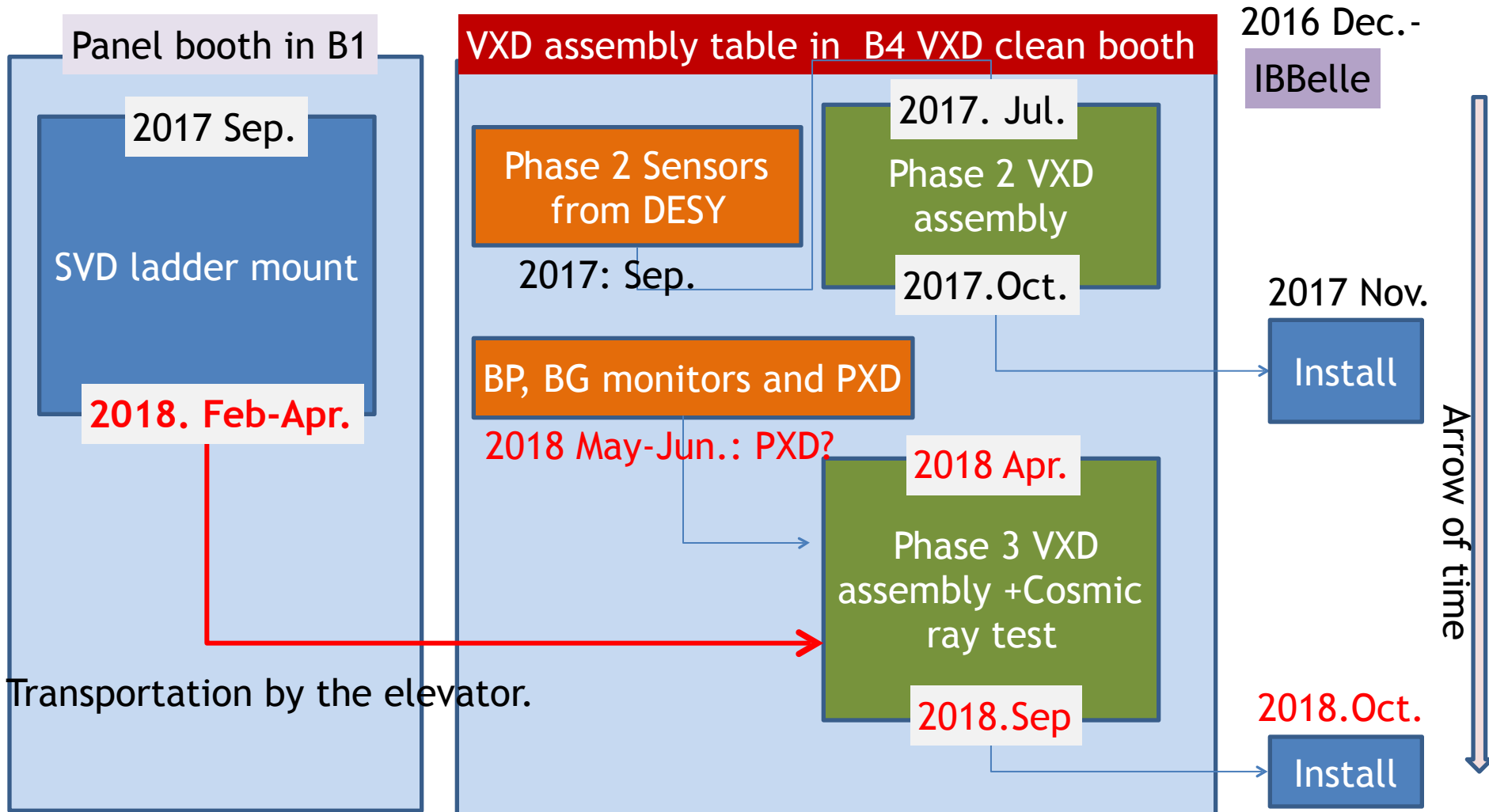
Activity	Days
Diamonds. Installation and tests	2
Survey beam pipe and PXD at arrival. Rotation beam pipe	2
Cabling clean room to back end	2
Dock boxes (mechanical installation, DockBoxPCB, cabling)	5
(First) Half shell installation	5
Connection patch panels	2
CO2, nitrogen and closing the volume for testing	2
Test 20 modules (half shell)	7
Disconnection patch panels and CO2, opening the volume and rotation	2
(Second) Half shell installation	5
Connection patch panels	2
CO2, nitrogen and closing the volume for testing	2
Test 20 modules (half shell)	7
Disconnection patch panels and CO2, opening the volume and rotation	2
Total	47

Overview VXD Assembly Work

S. Tanaka

We will assemble two sets of VXD system

- VXD for BEAST phase 2
- VXD for phase 3 physics run

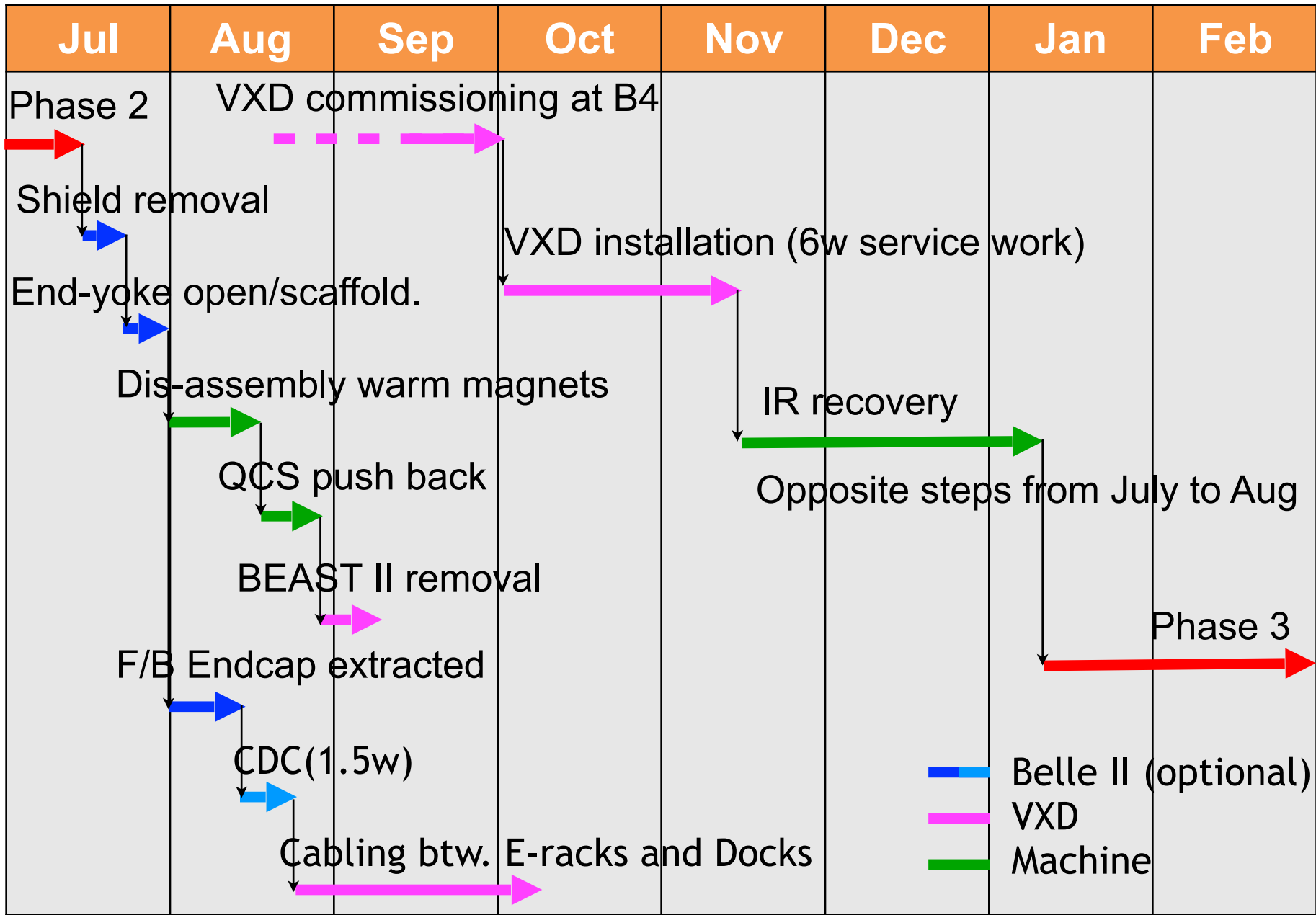


Installation of VXD Outer Services

Activity	Days	Work days	weeks
mount dockboxes (FWD BWD in parallel)	2	2	
PXD Power cables BWD (40 cables)	4	4	
SVD power BWD (60 cables)	5	5	
PXD Power cables FWD (40 cables)	4		
SVD power FWD (36 cables)	3		
PXD signal cables BWD (20 + 8 + 8)	4	4	
SVD signal cables BWD (111 cables)	6	6	
PXD signal cables FWD (20 + 8 + 8)	4		
SVD signal cables FWD (61 cables)	4		
VXD monitor cables BWD	5	5	
VXD monitor cables FWD	2	2	
sum (including 1 week of scaffolding)		28	6

Try to parallelize work as much as possible. Type of cables and tight space requirements on CDC end plate and in ECL slots dictate installation sequence:

PXD power → SVD power → PXD signal → SVD signal



With a second set of outer cables installation can partly run in parallel with VXD commissioning => Target date for phase3 start in Jan 2019 can still be met.