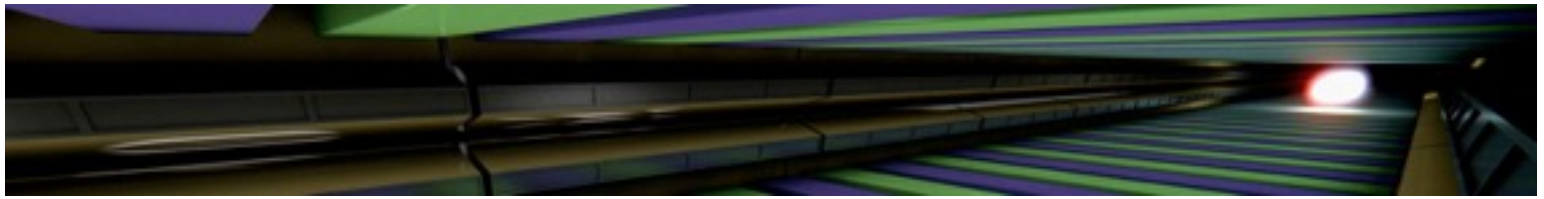


Introduction

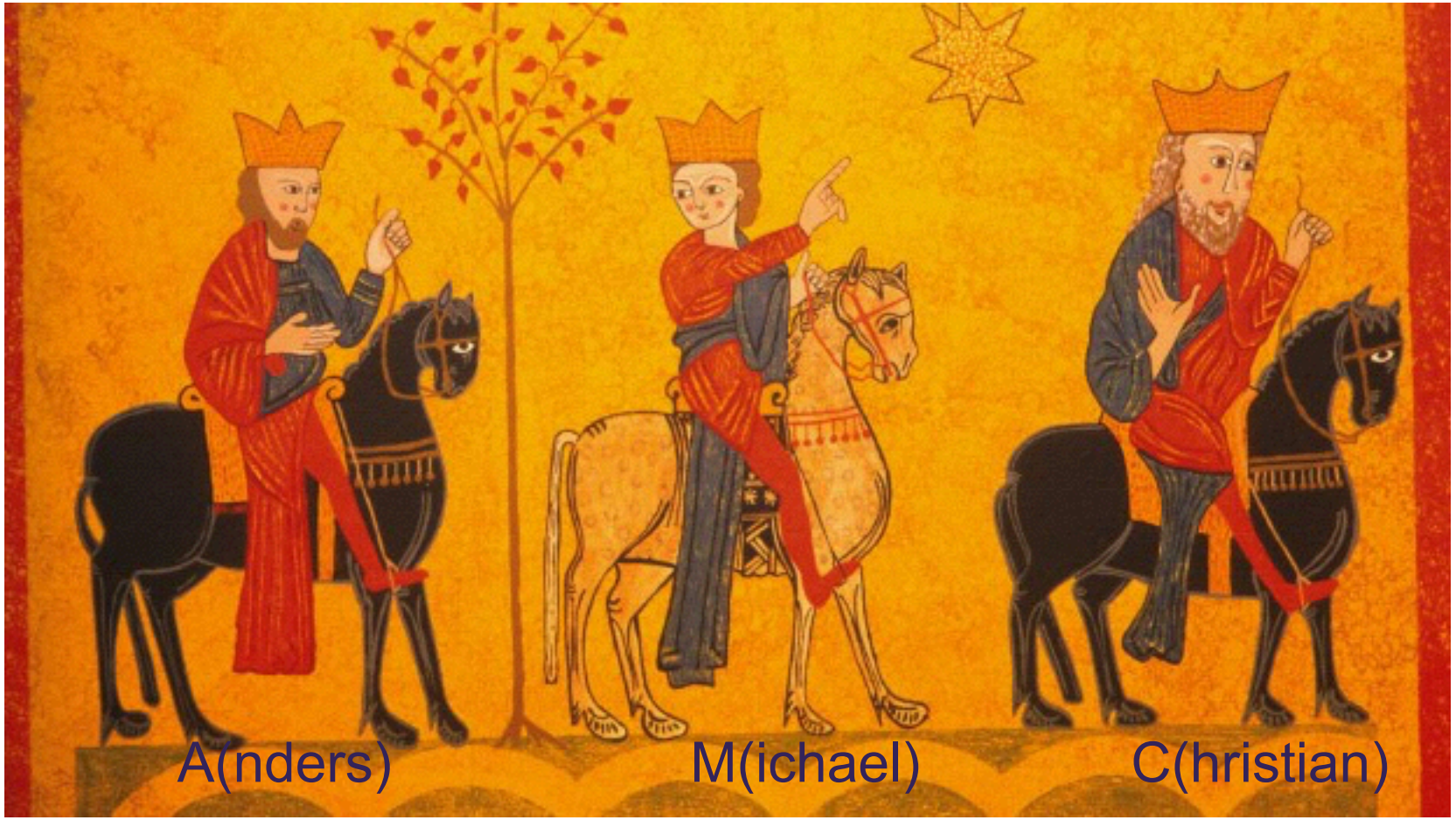
Tobias Haas

Technical Meeting

6 Jan 2017

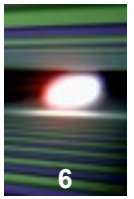
20*C&M&B*17?


SASE2
SASE3
SASE1


A(nders)
M(ichael)
C(hristian)

U&A&A or A&M&B!

Schedule Update



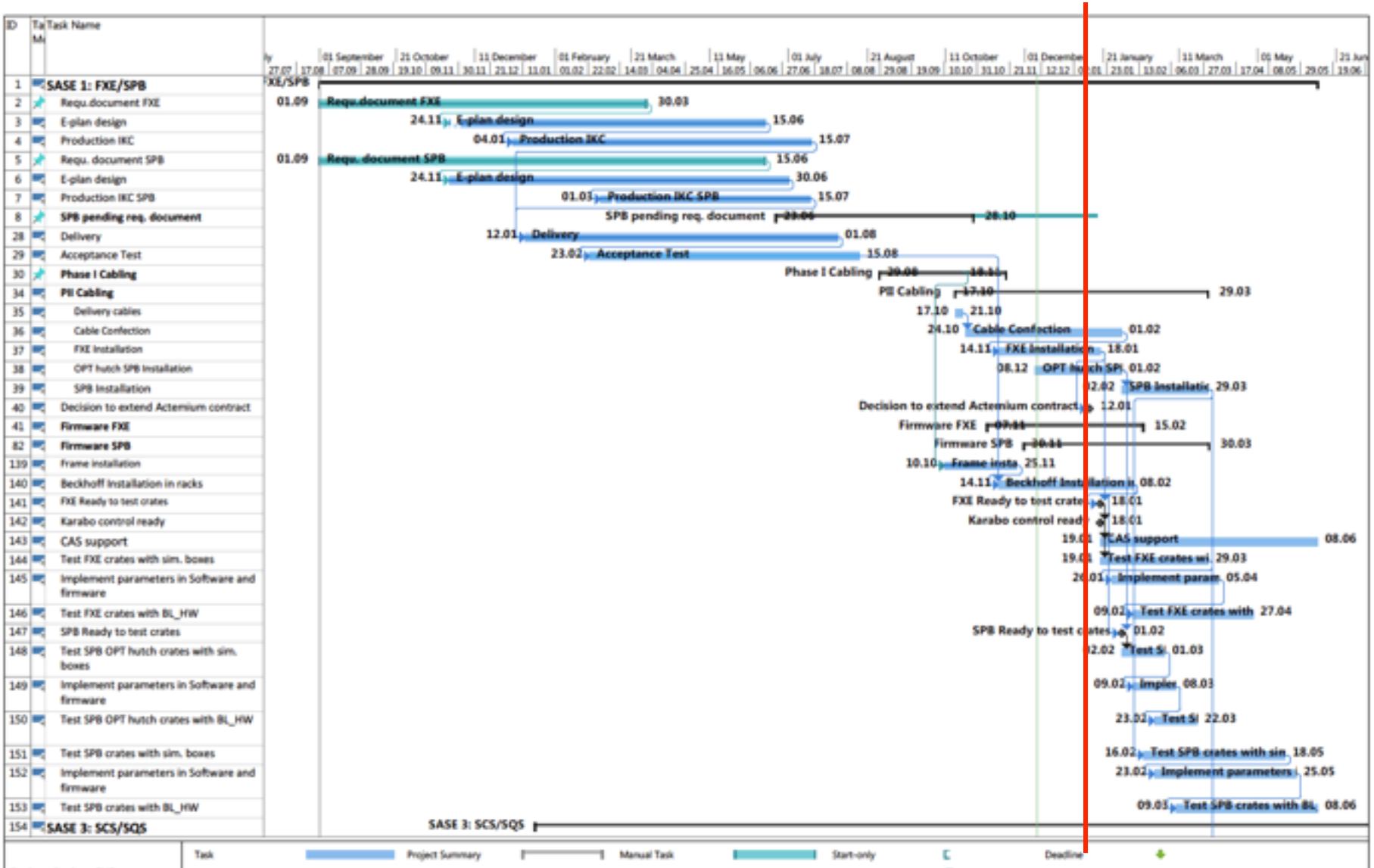
- SASE3 AC schedule from Caverion now available
  - Hutches handed to instruments: 3 Jul
  - Step1 (+AC, + Laser interlock. +Phase1): 12 Sep
  - Step2 (+Phase2 + Rad interlock +…): 1 Nov
    - ➔ SASE3 dates are driven by infrastructure installations (mostly AC)

- SASE2
  - Hutches handed to instruments: 5 May
  - Step 1: 11 Sep
  - Step 2: 6 Dec
    - ➔ SASE2 dates are driven by electronics and cabling

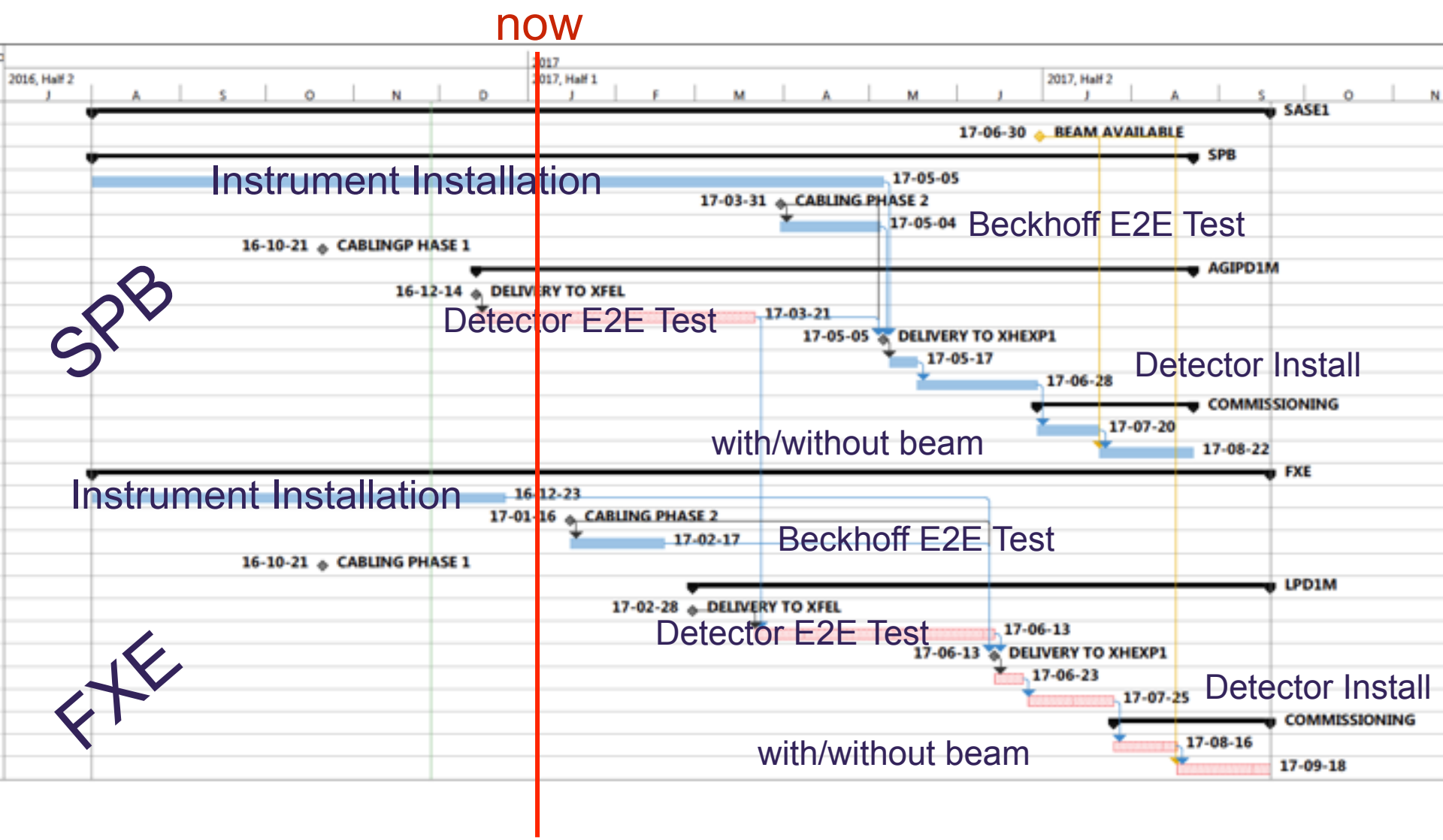
European XFEL

SASE1: Infrastructure, Electronics, Cabling etc…

now

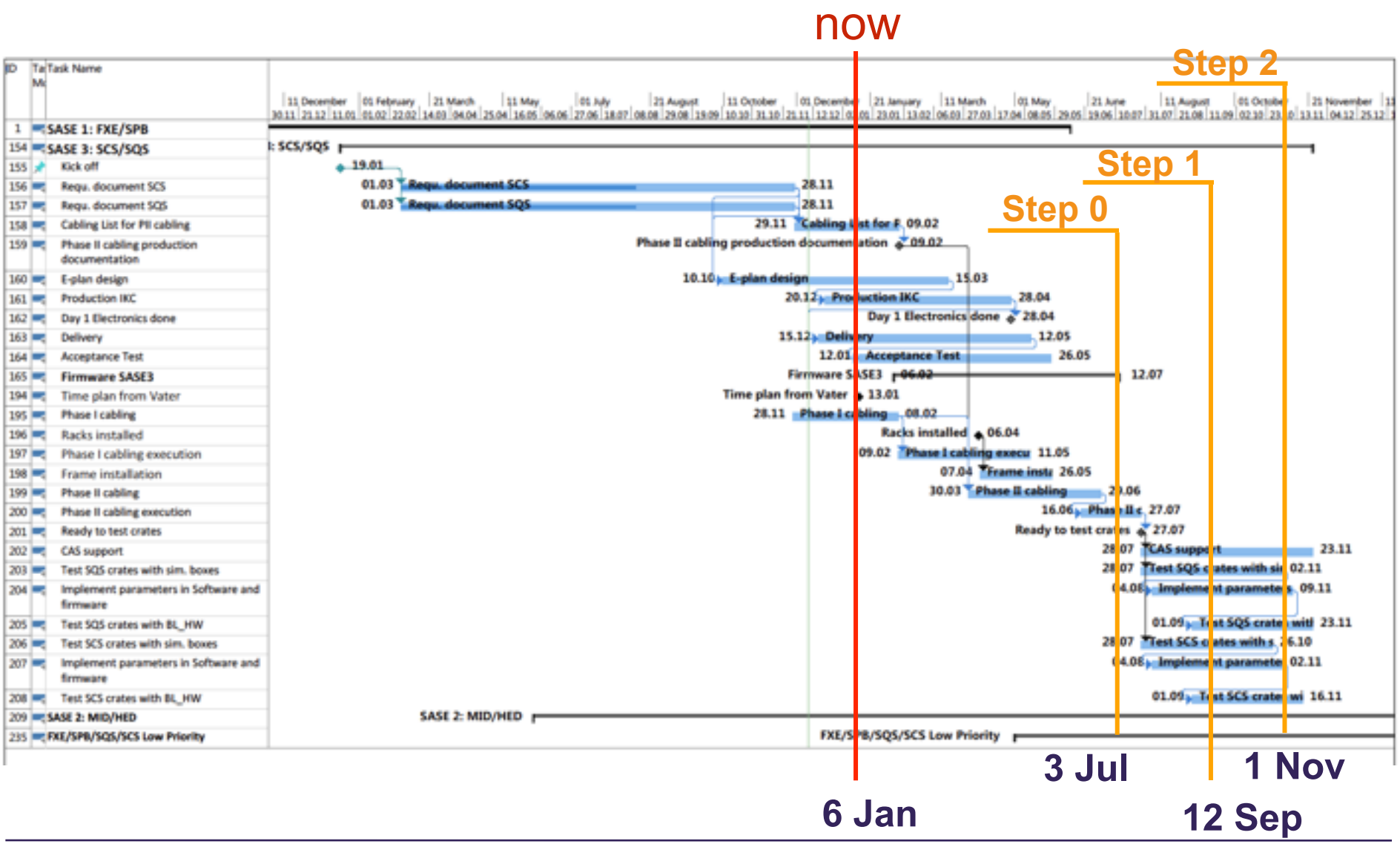


SASE1 Detector Integration

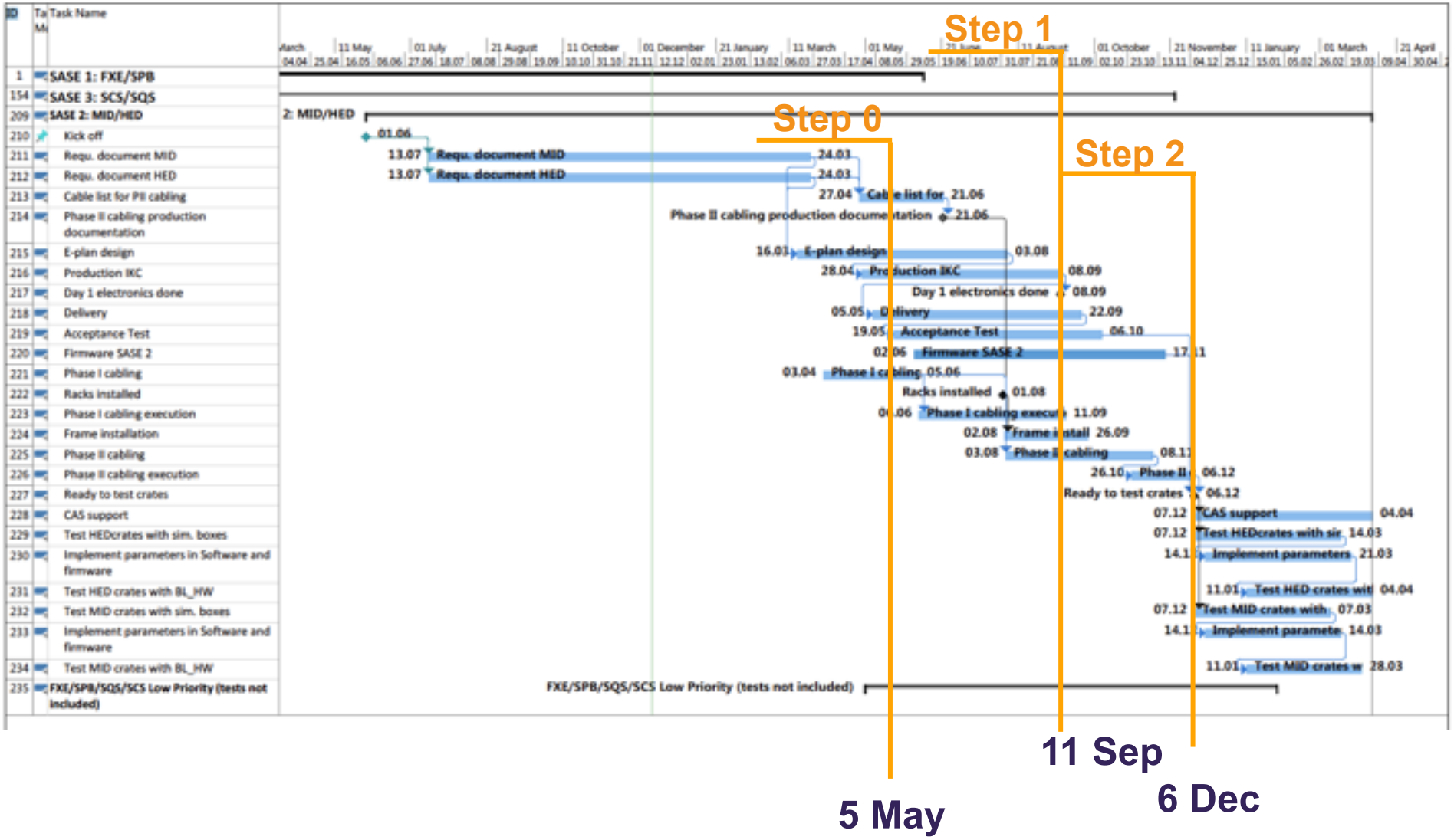


European XFEL

SASE3: Infrastructure, Electronics, Cabling etc…



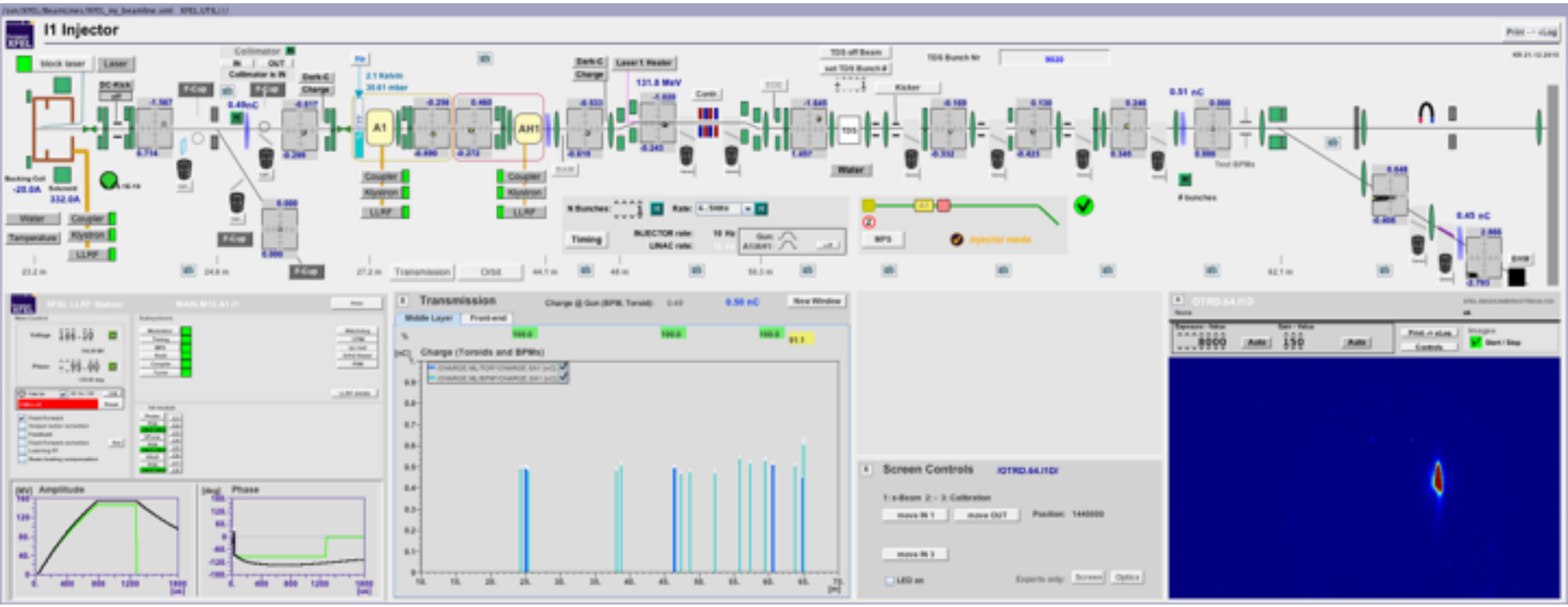
SASE2: Infrastructure, Electronics, Cabling etc…



Status XTL

- Cool down of LINAC reached 4K on 28 Dec
- Some remaining work on CS8 and magnet current test this week and on the weekend
  - XS1 will be closed and it is not possible to go from XTD2 to XTD1 via XS1
- Beam into XTL possibly next week
- Commissioning of injector already started

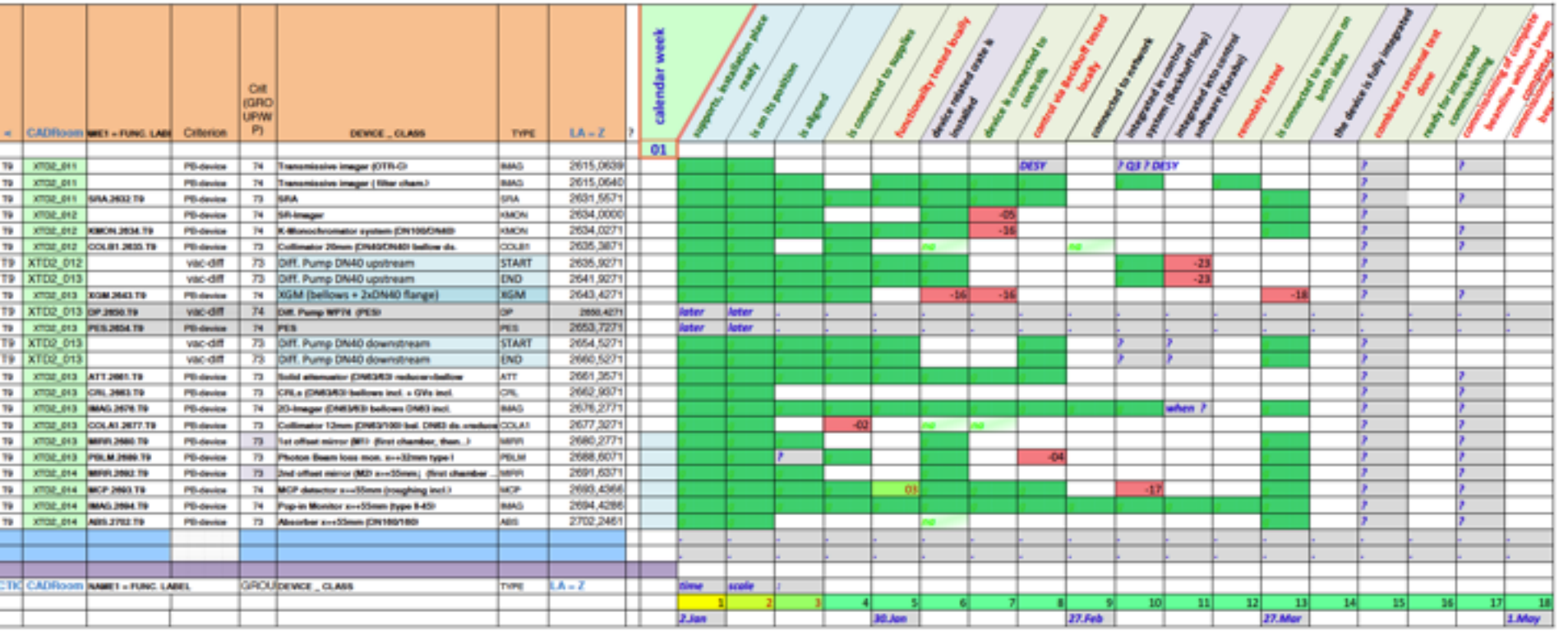
First beam in the injector on 4 Jan



Status XTD2

- All SASE1 undulators closed to 10mm gap within 3 days from 19 – 22 Dec

PBS Installations in XTD2

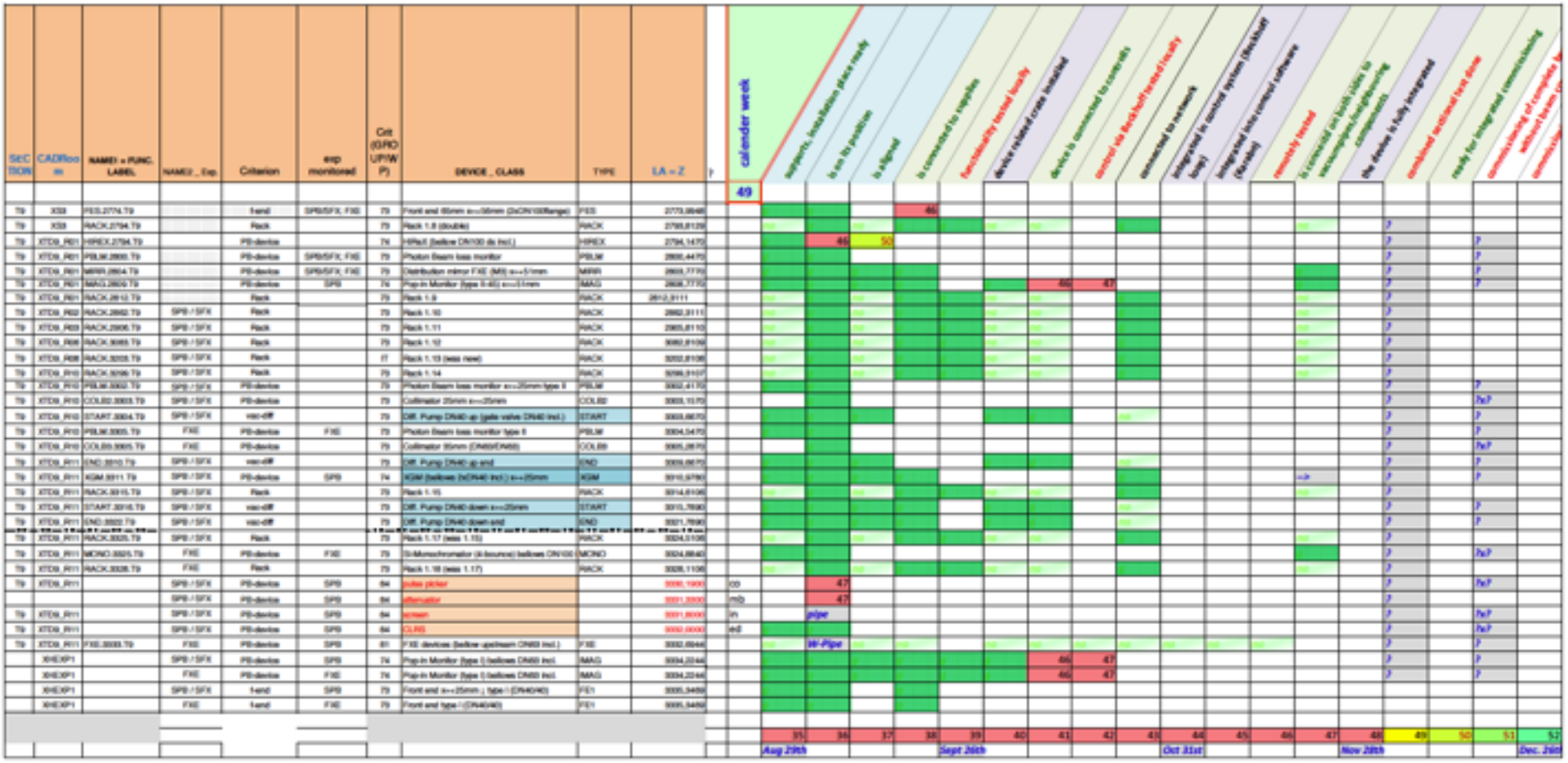


«	CADRoom	NAME1 = FUNC. LABEL	Criterion	Crit (GROUPW P)	DEVICE _ CLASS	TYPE	LA – Z	?	calendar week	supports, installation place ready	is on its position	is aligned	is connected to supplies	functionality tested locally	device related area is installed	device is connected to controls	control via Beckhoff tested locally	connected to network	integrated in control system (Beckhoff loop)	integrated into control software (Karabo)	remotely tested	is connected to vacuum on both sides	the device is fully integrated	combined sectional test done	ready for integrated commissioning	commissioning of complete beamline without beam	commissioned with beam
									01																			
T9	XTD2_011		PB-device	74	Transmissive imager (OTR-D)	IMAG	2615,0639										DESY		? Q3 ? DESY					?			?	
T9	XTD2_011		PB-device	74	Transmissive imager (filter cham.)	IMAG	2615,0640																	?				
T9	XTD2_011	SRA.2632.T9	PB-device	73	SRA	SRA	2631,5671																	?			?	
T9	XTD2_012		PB-device	74	SR-Imager	XMON	2634,0000									-05								?				
T9	XTD2_012	XMON.2634.T9	PB-device	74	X-Monochromator system (DN100/DN40)	XMON	2634,0271									-16								?			?	
T9	XTD2_012	COLI01.2635.T9	PB-device	73	Collimator 20mm (DN40/DN40 bellow ds.	COLI1	2635,3871							no			no							?			?	
T9	XTD2_012		vac-diff	73	Diff. Pump DN40 upstream	START	2635,9271													-23				?				
T9	XTD2_013		vac-diff	73	Diff. Pump DN40 upstream	END	2641,9271													-23				?				
T9	XTD2_013	XGM.2643.T9	PB-device	74	XGM (bellows + 2xDN40 flange)	XGM	2643,4271								-16	-16						-18		?			?	
T9	XTD2_013	DP.2650.T9	vac-diff	74	Diff. Pump WP74 (PES)	DP	2650,4271		later	later																		
T9	XTD2_013	PES.2654.T9	PB-device	74	PES	PES	2653,7271		later	later																		
T9	XTD2_013		vac-diff	73	Diff. Pump DN40 downstream	START	2654,5271											?	?					?				
T9	XTD2_013		vac-diff	73	Diff. Pump DN40 downstream	END	2660,5271											?	?					?				
T9	XTD2_013	ATT.2661.T9	PB-device	73	Solid attenuator (DN63/63 reducer+bellow	ATT	2661,3571																	?			?	
T9	XTD2_013	CRL.2663.T9	PB-device	73	CRLs (DN63/63 bellows incl. + GVs incl.	CRL	2662,9071																	?			?	
T9	XTD2_013	IMAG.2676.T9	PB-device	74	2D-Imager (DN63/63 bellows DN63 incl.	IMAG	2676,2771													when ?				?			?	
T9	XTD2_013	COLA1.2677.T9	PB-device	73	Collimator 12mm (DN63/100 bel. DN63 ds. reducer	COLA1	2677,3271					-02		no	no									?			?	
T9	XTD2_013	MIRR.2680.T9	PB-device	73	1st offset mirror (M1) (first chamber, then...)	MIRR	2680,2771																	?			?	
T9	XTD2_013	PBLM.2686.T9	PB-device	73	Photon Beam loss mon. z=+32mm type-I	PBLM	2686,6071			?						-04								?			?	
T9	XTD2_014	MIRR.2692.T9	PB-device	73	2nd offset mirror (M2) z=+55mm ((first chamber ...	MIRR	2691,6371																	?			?	
T9	XTD2_014	MCP.2693.T9	PB-device	74	MCP detector z=+55mm (roughing incl.)	MCP	2693,4366						01					-17						?			?	
T9	XTD2_014	IMAG.2694.T9	PB-device	74	Pop-in Monitor z=+55mm (type II-45)	IMAG	2694,4266																	?			?	
T9	XTD2_014	ABS.2702.T9	PB-device	73	Absorber z=+55mm (DN160/160)	ABS	2702,2461							no										?			?	
CTR	CADRoom	NAME1 = FUNC. LABEL		GROUP	DEVICE _ CLASS	TYPE	LA – Z		time	scale																		
									1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
									2.Jan				30.Jan				27.Feb				27.Mar					1.May		

List by S. Cunis

- Everything installed and aligned
- Almost everything is cabled
- A lot of testing and commissioning still needed

PBS Installations in XTD9



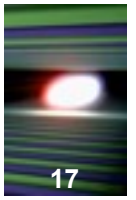
- Installations and alignment done (a few problems remain)
- Some cabling and a lot of commissioning and testing needed

Status XTD4

- Undulators beam line is being re-aligned using the SLRS
- Commissioning of undulators is next
  - Removal of Safety covers, Safety Precautions
  - Fine alignment of the vacuum chambers,
  - Closing the gap to 10.000mm
  - Fine adjustment of limit switches, CALs, Hardstops,
  - Installation of Radfets, Air Coil

European XFEL

Status XTD10



SECTION	CADRoom	name1 FUNC. LABEL	name2 Exp.	Exp. Monitored	criterion	criterion group / WP	DEVICE_class	TYPE	LA + Z	calendar week	supports, installation place ready	in on its position	is aligned	is connected to supplies	functionality tested locally	device related work is finished	device is connected to controls	control via Beckhoff tested locally	connected to network	integrated in control system (Beckhoff level)	integrated into control software (Karabo or ...)	remotely tested	is connected to a secure on both sides	the device
[]	[]	[]	[]			[]	[]	[]	[m]	01														
TH0	XSDUD			SQ3: SCS,N.C:	pb-device	T4	Transmissive imager (DTR,Ce,filter cham.)	IMAG	9068.2057															
TH0	XTD10_001	SRA.3115.T10		SQ3: SCS,N.C:	pb-device	T3	SRA (DN100/DN100)	SRA	3114.8501															
TH0	XTD10_001	KMON.3117.T10		SQ3: SCS,N.C:	pb-device	T4	X-Monochromator system (DN100/DN40)	KMON	3117.0000															
TH0	XTD10_001	KMON.3117.T10		SQ3: SCS,N.C:	pb-device	T4	SR-Imager	KMON	3117.5000				01											
TH0	XTD10_001	COLB1.3118.T10			pb-device	T3	Collimator 11mm (DN40/DN40)	COLB1	3118.5203															
TH0	XTD10_001				vac-diff	T3	Diff. Pump DN40 upstream (GV incl.)	ST.ART	3122.8102															
TH0	XTD10_001				vac-diff	T3	Diff. Pump DN40 upstream	END	3126.8175															
TH0	XTD10_001	KGM0.3130.T10		SQ3: SCS,N.C:	pb-device	T4	KGM (bellows DN40 incl.)	KGM0	3130.1287															
TH0	XTD10_001	DP.3138.T10			vac-diff	T4	Diff pump WPT4 (bellow DN40 upstream)	DP	3138.4570				-02											
TH0	XTD10_001	PES.3142.T10		SQ3: SCS,N.C:	pb-device	T4	PES (bellows DN40 incl.)	PES	3142.2360		-	-	-	-	-	-	-	-	-	-	-	-	-	-
TH0	XTD10_001				vac-diff	T3	Diff. Pump DN40 downstream	ST.ART	3143.9358															
TH0	XTD10_001				vac-diff	T3	Diff. Pump DN40 downstream (GV incl.)	END	3145.0342															
TH0	XTD10_001	ST.ART.3148.T10		SQ3: SCS,N.C:	pb-device	T3	Gas attenuator DN50 start (length without reducers)	ST.ART	3148.2802				tbpositioned											
TH0	XTD10_002			SQ3: SCS,N.C:	pb-device	T3	Gas attenuator DN50 end	END	3186.0268			52	tbpositioned											
TH0	XTD10_002	LASE.3196.T10			pb-device	T3	Alignment laser DN50	LASE	3195.9809		no		pipe	no	no		no	no	no	no	no	no	no	no
TH0	XTD10_002	IMAG.3196.T10		SQ3: SCS,N.C:	pb-device	T4	XD-Imager (DN65/50 bellows+venting incl.)	IMAG	3196.9677				01											
TH0	XTD10_002	COLA1.3107.T10			pb-device	T3	Collimator 20mm (DN63/63)	COLA1	3107.0800															
TH0	XTD10_002	MRR.3200.T10		SQ3: SCS,N.C:	pb-device	T3	1st offset mirror (MT)	MRR	3200.3104															
TH0	XTD10_002	PBLM.3202.T10		SQ3: SCS,N.C:	pb-device	T3	PBLM [redacted] (reducer-bellows DN160 incl.)	PBLM	3201.9157															
TH0	XTD10_002	MRR.3203.T10		SQ3: SCS,N.C:	pb-device	T3	2nd offset mirror (MD) x=-75mm;	MRR	3203.2149															
TH0	XTD10_002	MCP.3205.T10		SQ3: SCS,N.C:	pb-device	T4	MCP x=-75mm; (roughing incl.)	MCP	3205.0710				parked											
TH0	XTD10_002	IMAG.3206.T10		SQ3: SCS,N.C:	pb-device	T4	Pop-in Monitor x=-75mm; (type 01) DN200/DN200 bellows incl.	IMAG	3205.3891															
TH0	XTD10_002	ABS.3207.T10			pb-device	T3	Absorber (DN200/DN200) x=-75mm	ABS	3206.7150				-04											
TH0	XTD10_002	COLA2.3214.T10			pb-device	T3	Collimator 40x30mm (DN160/160) x=-75mm	COLA2	3213.6701				-08											
TH0	XTD10_003	SLIT.3218.T10		SQ3: SCS,N.C:	pb-device	T3	Vertical slit (DN160/DN160) bellow DN160 dia. x=-75	SLIT	3218.0589		-03		00											
TH0	XTD10_003	MONO.3220.T10		SQ3: SCS,N.C:	pb-device	T3	soft X-ray monochromator	MONO	3219.7105															
TH0	XTD10_003	IMAG.3221.T10		SQ3: SCS,N.C:	pb-device	T4	Pop-in Monitor (type 0-90) (DN160 bellows incl.) x=-75	IMAG	3221.2291					02										
TH0	XTD10_003	DOD1.3222.T10		SQ3: SCS,N.C:	pb-device	T3	diffraction order dump 1 (DN160/160) x=-75mm;y=-2	DOD1	3222.3096															
TH0	XTD10_003	DOD2.3224.T10		SQ3: SCS,N.C:	pb-device	T3	diffraction order dump 2 (DN160/160) x=-75mm;y=-1	DOD2	3224.3091															
TH0	XTD10_003	DOD3.3228.T10		SQ3: SCS,N.C:	pb-device	T3	diffraction order dump 3 (DN160/160) x=-75mm;y=-1	DOD3	3228.3087															
TH0	XTD10_003	DOD4.3236.T10		SQ3: SCS,N.C:	pb-device	T3	diffraction order dump 4 (DN160/160) x=-75mm;y=-5	DOD4	3236.3081															
TH0	XTD10_003	DOD5.3241.T10		SQ3: SCS,N.C:	pb-device	T3	diffraction order dump 5 (DN160/160) x=-75mm;y=-5	DOD5	3241.3046															
TH0	XTD10_003	PBLM.3255.T10		SQ3: SCS,N.C:	pb-device	T3	PBLM x=-80mm;y=-5mm (DN100/100) Rh/W incl.	PBLM	3255.2791															
TH0	XTD10_003	MRR.3258.T10		SQ3: SCS,N.C:	pb-device	T3	distribution mirror SC5 (MI) x=-80mm;y=-5mm	MRR	3258.3003															
TH0	XTD10_003	IMAG.3260.T10		SQ3	pb-device	T4	Pop-in Monitor (type 0-45) x=-80mm;y=-8mm	IMAG	3260.3316				01											
TH0	XTD10_003	MRR.3264.T10		SQ3	pb-device	T3	distribution mirror SC02 (MI) ** y=-5mm	MRR	3263.7369		not yet	-	-	-	-	-	-	-	-	-	-	-	-	-
TH0	XTD10_003	IMAG.3266.T10		SQ3	pb-device	T4	OPTION* Pop-in Monitor (type XXX) DN250/DN300	IMAG	3265.5864		?													
TH0	XTD10_003	CHAM.3267.T10	SQ3--SQ32	SQ3	sep-cham	T3	1st beam sep. chamber x=0;y=-5mm	CHAM	3267.3475	SQ3														
TH0	XTD10	CHAM.3267.T10	SC5 (no concrete step!!!)	SQ3	sep-cham	T3	1st beam sep. chamber x=0;y=-5mm	CHAM	3267.3475	SC5														
TH0	XTD10_004	CHAM.3270.T10	SQ3 (no concrete step!!!)	SQ3	sep-cham	T3	2nd beam sep. chamber x=-130mm;y=-5mm	CHAM	3272.5826	SQ5														
TH0	XTD10_004	HSLIT.3280.T10	SC5 (no concrete step!!!)	SC5	pb-device	T3	Horizontal slit x=-50.1mm;y=-5mm	HSLIT	3280.2910		-08		-08											
TH0	XTD10_004	COL82.3316.T10	SQ5 (no concrete step!!!)		pb-device	T3	collimator 36x31mm; x=-11mm;y=-5.2mm (DN100/100)	COL82	3316.5813															
TH0	XTD10_004	COL83.3316.T10	SC5 (no concrete step!!!)		pb-device	T3	collimator 36x31mm; x=-11mm;y=-5.2mm (DN100/100)	COL83	3316.5813															
TH0	XTD10_004	SLIT.3316.T10	SC5 (no concrete step!!!)	SQ5	pb-device	T3	vertical exit slits x=-11mm;y=-5.2mm	SLIT	3316.2841	com-bined														
TH0	XTD10_004	IMAG.3316.T10	SQ5 (no concrete step!!!)	SQ5	pb-device	T4	Pop-in monitor (integrated in slit)	IMAG	3316.2841	bined			08											
TH0	XTD10_004	SLIT.3319.T10	SC5 (no concrete step!!!)	SC5	pb-device	T3	vertical exit slits x=-11mm;y=-5.2mm	SLIT	3319.2841	com-bined														
TH0	XTD10_004	IMAG.3319.T10	SC5 (no concrete step!!!)	SC5	pb-device	T4	Pop-in monitor (integrated in slit) x=-11mm;y=-5mm	IMAG	3319.2841	bined			08											
TH0	XTD10_005	PBLM.3321.T10	SC5 (no concrete step!!!)	SC5	pb-device	T3	PBLM (DN65/DN65) x=-47mm;y=0	PBLM	3320.5845															
TH0	XTD10_005	PBLM.3332.T10	SC5 (no concrete step!!!)	SC5	pb-device	T3	PBLM (DN65/DN65) x=-47mm;y=0	PBLM	3332.4803															
	XHEXP1	IMAG.3334.	SC5 (no concrete step!!!)	SC5	pb-device	T4	Pop-in monitor (type I bellows incl. x=-47mm;y=0	IMAG	3334.3761				01											
	XHEXP1	IMAG.3334.	SC5 (no concrete step!!!)	SC5	pb-device	T4	Pop-in monitor (type I bellows DN63 incl. x=-47mm;y	IMAG	3334.4934				01											
	XHEXP1	FE1.3335.	SC5 (no concrete step!!!)	SC5	f-and	T3	Front end type I x=-47mm;y=0	FE1	3335.4063															
	XHEXP1	FE1.3336.	SC5 (no concrete step!!!)	SC5	f-and	T3	Front end type I x=-47mm;y=0	FE1	3335.5545															
											01	02	03	04	05	06	07	08	09	10	11	12	13	14
											2.Jan				30.Jan				27.Feb				27.Mar	

European XFEL

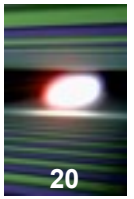
Status XTD10

- Almost everything is in place
- Alignment needed
- A lot of cabling is missing
- (Almost) no testing and commissioning so far
- Priorities: XTD2 -> XTD9 -> XTD10

Status Southern Branch

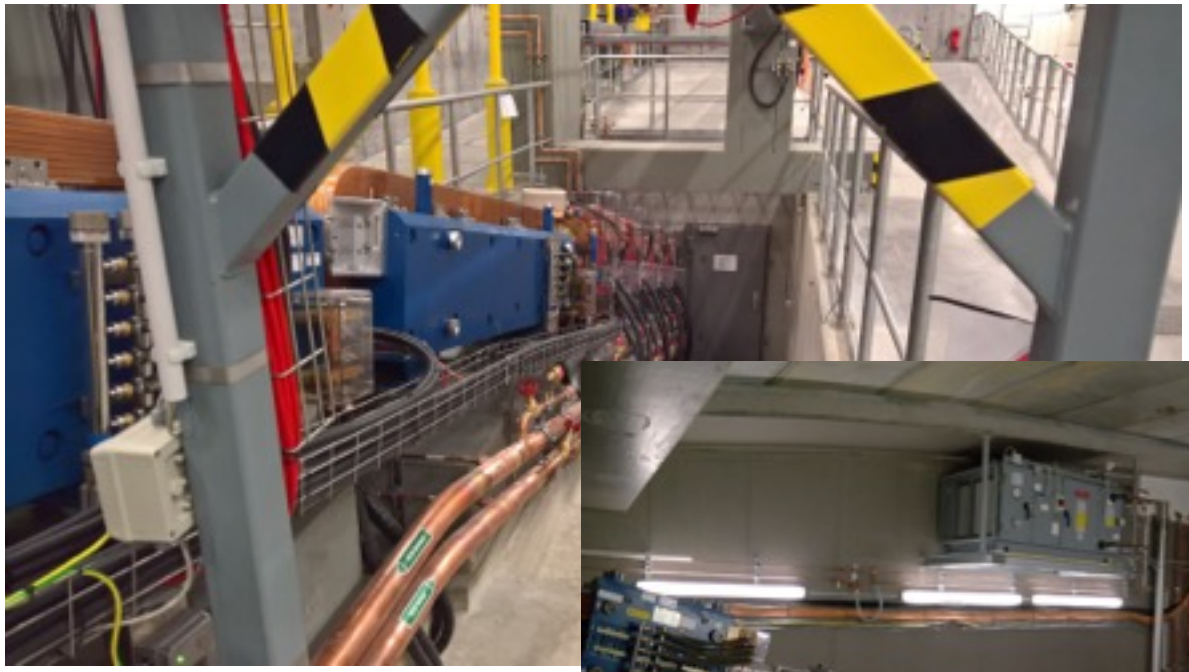
- Some infrastructure work is still ongoing
- Electron beam line is making good progress
- Photon beam line installations are starting
  - Holes are drilled
  - Racks will arrive in February
  - XGM support is built
  - SDL is in the tunnel

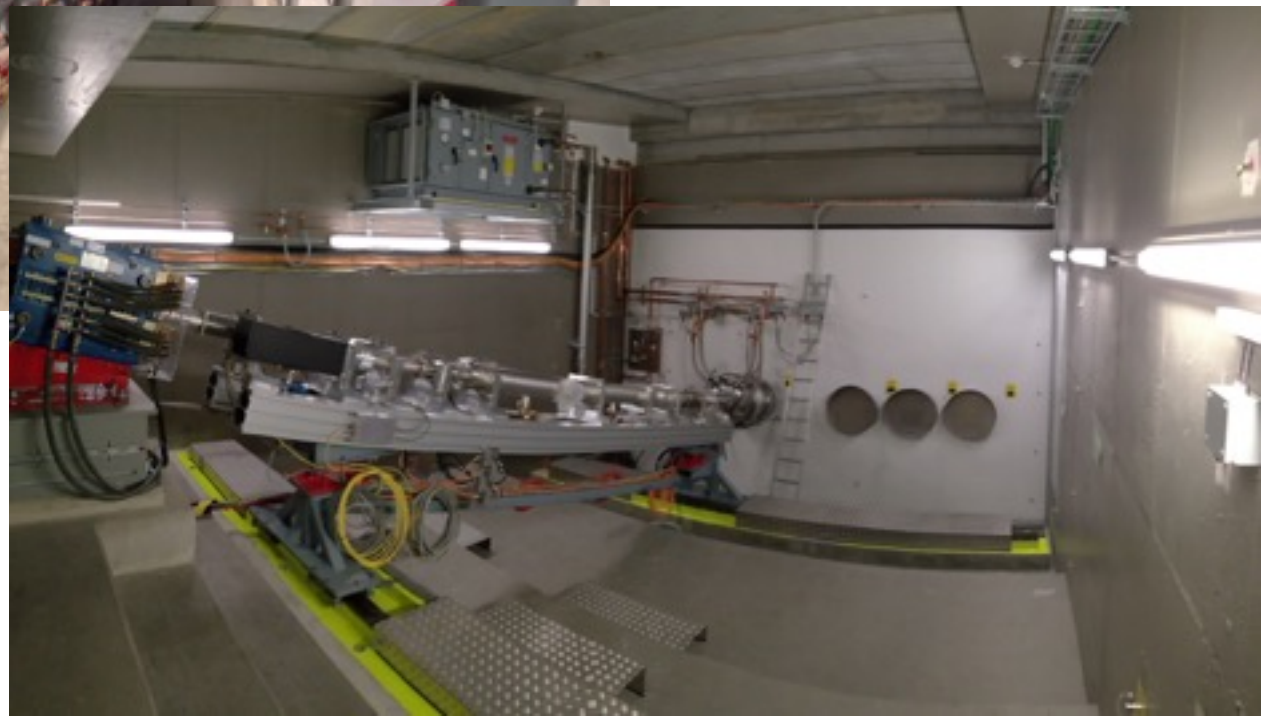
Experiment Hall



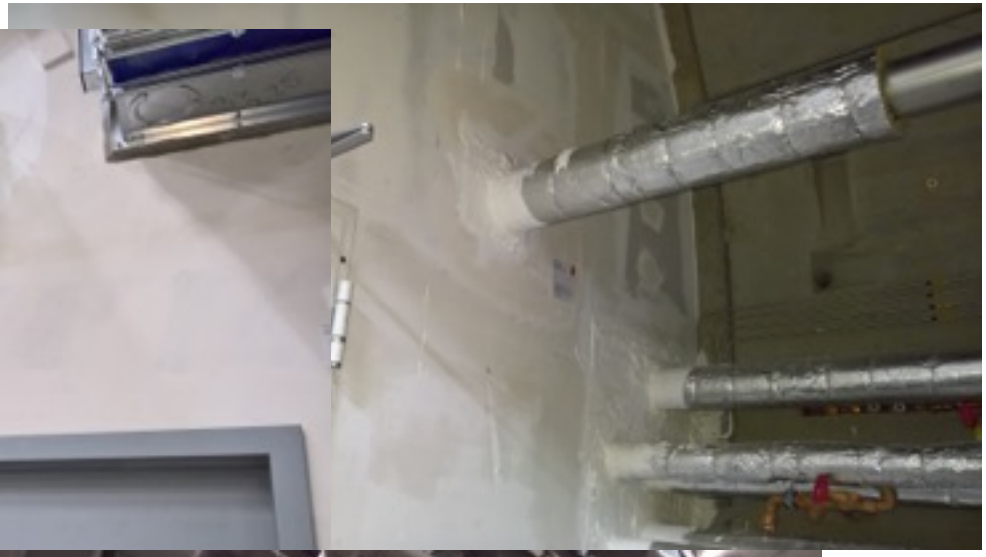
- Laser interlocks for SASE1 are built
  - Tests are ongoing
- Drinking water system for SASE1 was declared safe
  - Humidification for SASE1 can start
- Smoke extraction test is scheduled for mid Jan
- All “VOB Abnahme” (formal handover) for SASE1 infrastructure including Phase I cabling should conclude in January
  - Power was already done before Xmas
- SASE2 infrastructure works go into full swing
- SASE3 infrastructure works should go into full swing in Febuary

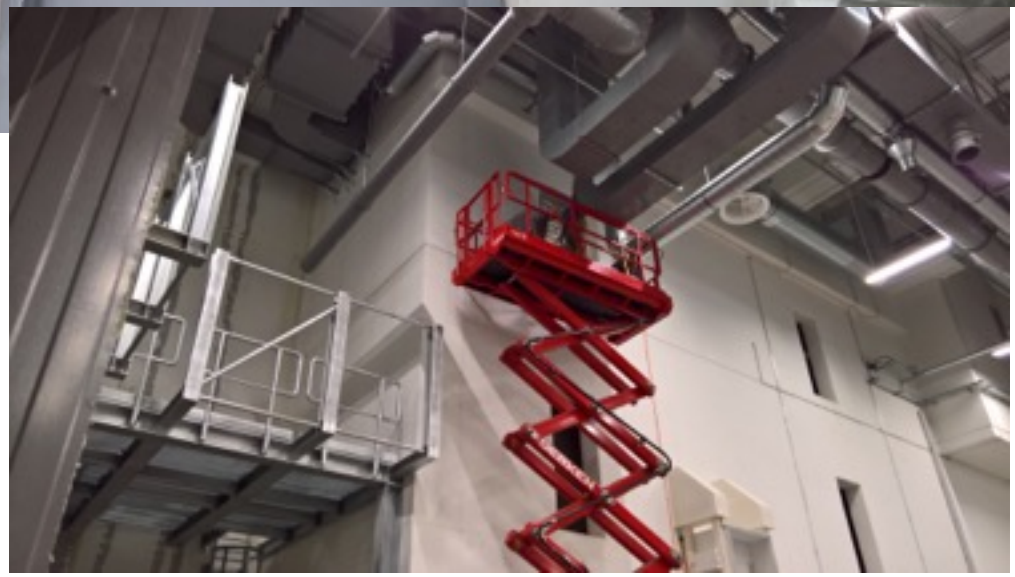
Main Dump ready to take beam in XS1





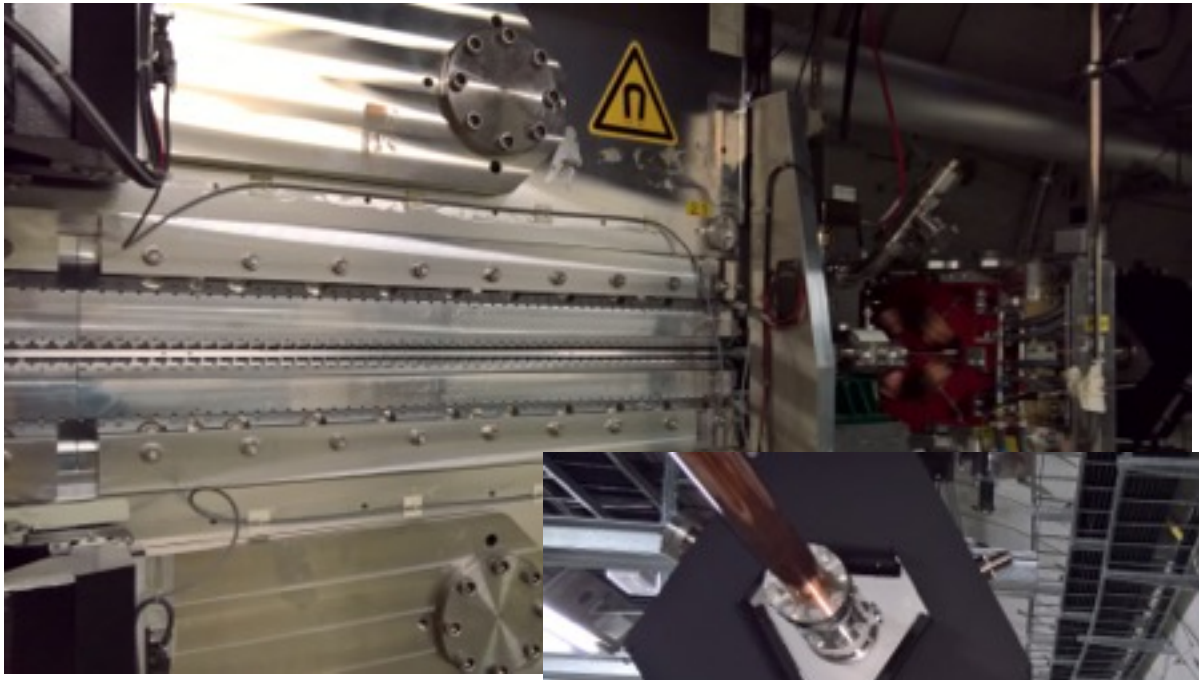
A lot of feedthroughs have been closed

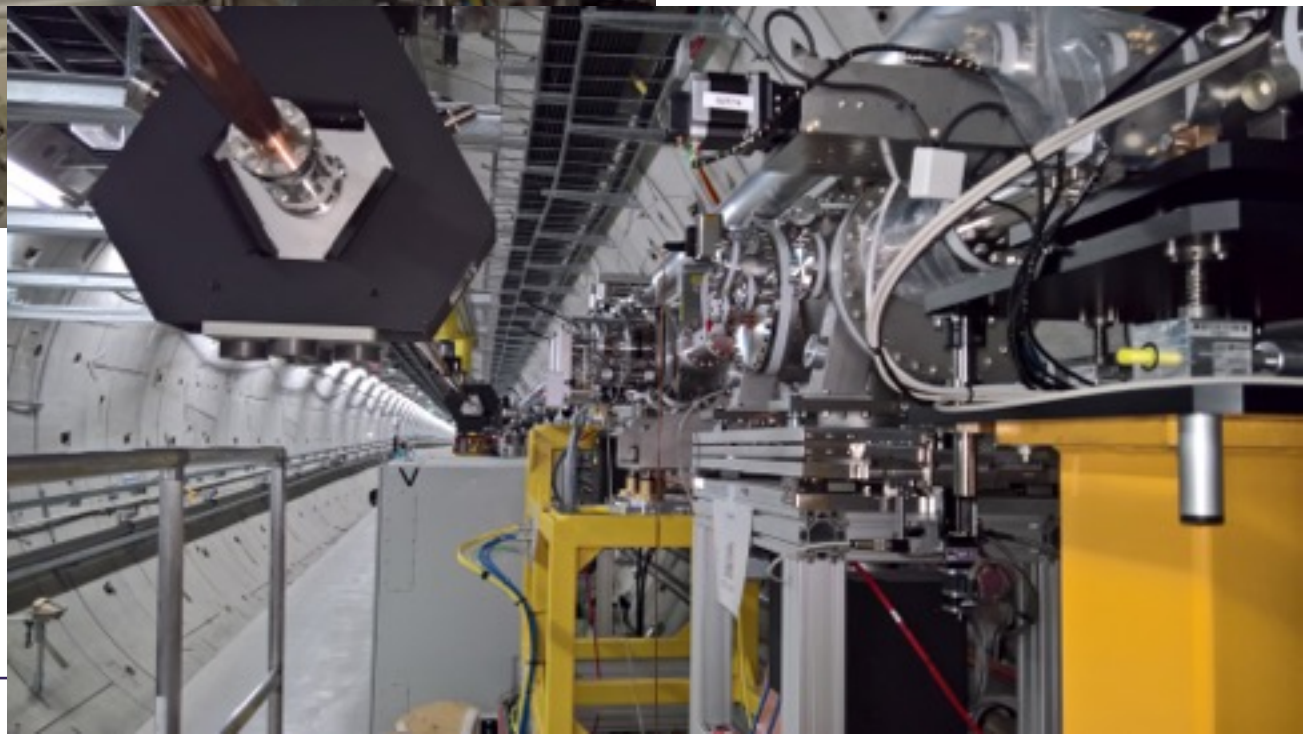




European XFEL

Progress in XTD2





European XFEL

Undulator Beamline in XTD1

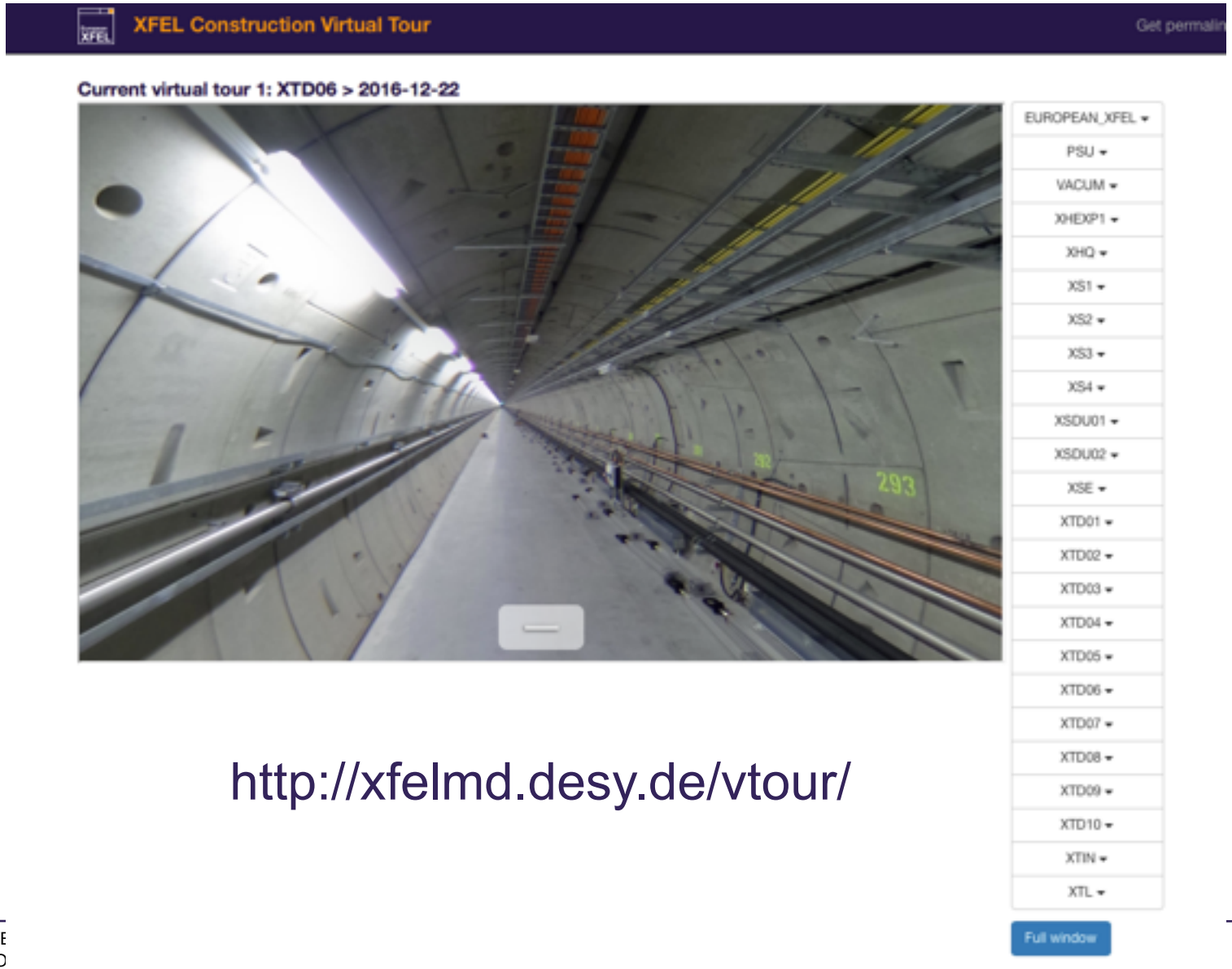
European XFEL

PBS Situation in XTD1

European XFEL

Laser Interlocks in SASE

Photodocumentation has been updated



http://xfelmd.desy.de/vtour/

Congratulations to Jana Stammerjohann

Uschi and Frederike are collecting signatures etc…

Next Meetings

- Make appointments with Michael Malso for measurements for Control Room Furniture ***early next week!***
- Vacuum Controls Commissioning Task Force and Tunnel Coordination
  - Today 09:30 after TechMeet in XTOB
- Final design review of SASE3 laser interlocks
  - Monday
- Meeting with Caverion&Spetec on details of AC curtains and plenums in SASE3
  - Tuesday 10:00 in XTOB
- Next XHEXP1 hall coordination meeting
  - Friday, 13 Jan 8:30