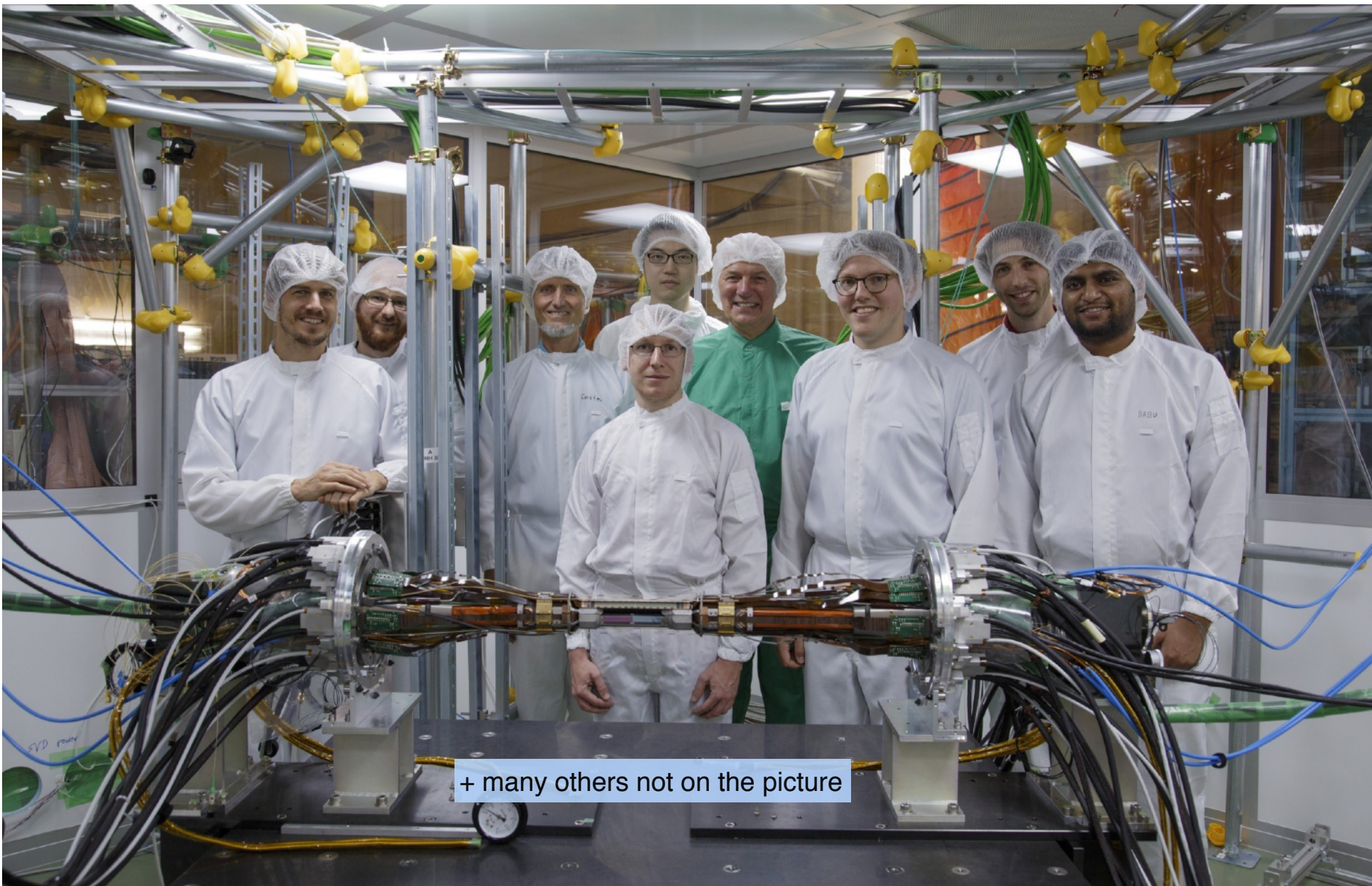


Scope of the Meeting

Agenda PXD 2020

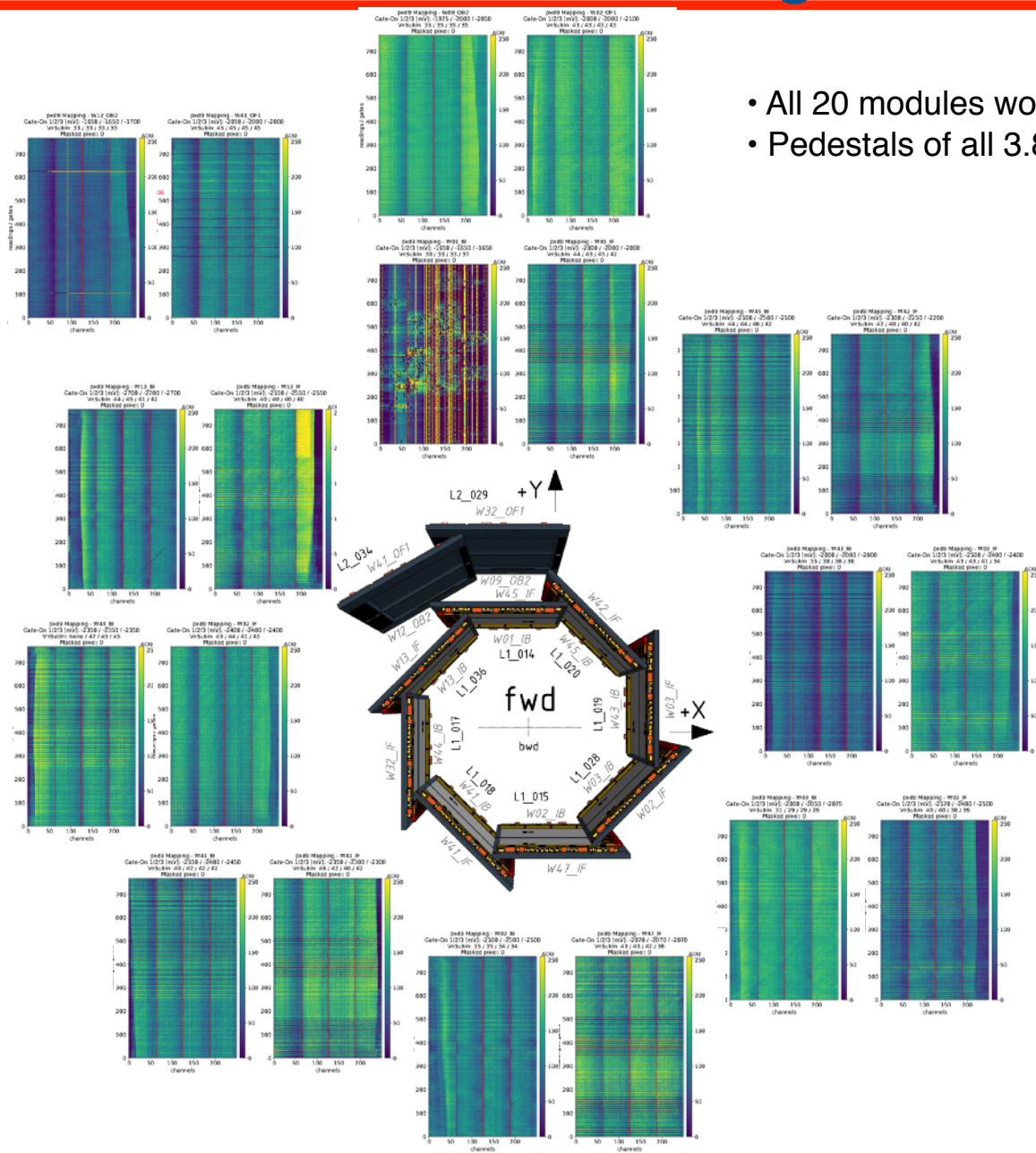
	Monday, October 8, 2018		Tuesday, October 9, 2018		Wednesday, October 10, 2018	
AM	09:00	Registration (until 10:00)	09:00	Phase 3 Commissioning at DESY and KEK - Hua Ye (Desy) Felix B. Mueller (MPP) (until 10:30)	09:00	PXD9-20 and -21 production batches - Rainer Richter (MPG HLL)
	10:00	Scope of the Meeting - Carsten Niebuhr (DESY)	09:00	Commissioning at DESY - Hua Ye (DESY)	09:20	DCD and Switcher: availability and testing plans - Ivan Peric (KIT)
	10:15	Sensor/Module Performance - Botho Paschen (Uni Bonn) (until 11:15)	09:20	Gated Mode of half shells - Felix J. Mueller (DESY)	09:40	DHPT: availability and testing - Hans Krueger (Uni Bonn)
	10:15	Lab Characterization Results - Philipp Wieduwilt (Uni Goettingen)	09:35	Service test at DESY - Maiko Takahashi (DESY)	10:00	--- Break ---
	10:40	Failure Analysis - Christian Koffmane	09:50	Commissioning at KEK - Felix B. Mueller (MPI for Physics)	10:30	Module Assembly and Testing - Laci Andricek (MPG Halbleiterlabor)
	11:15	--- Break ---	10:10	Calibration Software - Florian LUETTICKE (University of Bonn)	11:00	Other open issues and schedule - Carsten Niebuhr (DESY)
	11:45	Phase 2 Results/Background - Benjamin Schwenker (Uni Goettingen) (until 13:00)	10:30	--- Break ---	12:00	--- Lunch ---
	11:45	Phase2: Introduction - Botho Paschen (University of Bonn)	11:00	Ladder Assembly and Testing - Hans-Guenther Moser (MPP Munich)		
	12:05	BonnDAQ in Phase2 - Florian Luetticke	11:30	Phase 3 Readiness: DAQ - Igor Konorov (TUM) Soeren Lange (Uni Giessen) (until 13:00)		
	12:25	Operational Experience from Phase2 - Harrison Schreeck (Uni Goettingen)				
PM	13:00	--- Lunch ---	13:00	--- Lunch ---		
	14:00	Phase 2 System Operation - Bjoern Spruck (Uni Mainz) (until 14:45)	14:00	Phase 3 Readiness: SC, DQM - Michael Ritzert (Uni Heidelberg) Bjoern Spruck (Uni Mainz) (until 15:30)		
	14:00	DAQ in Phase 2 - Simon Reiter	15:30	--- Break ---		
	14:20	SlowControl in Phase 2 - Michael Ritzert	16:00	Phase 3 Installation - Services/Cooling/Mechanical - Carsten Niebuhr (DESY) (until 18:00)		
	14:35	Automatisation and Elog - Harrison Schreeck	16:00	Overview - Carsten Niebuhr (DESY)		
	14:45	After Phase 2 (until 15:30)	16:20	Detector and service installation in B4 cleanroom - Hua Ye (DESY)		
	14:45	Testbeam and irradiation campaign - Florian Luetticke (Uni Bonn)	16:50	Status of Patch Panels - Philipp Leidl (MPP, Munich)		
	15:05	Discussion	17:10	IBBelle status and prospects - Hans-Guenther Moser (MPP Munich)		
	15:30	--- Break ---	17:30	Discussion on open issues		
	16:00	IB Meeting - Jochen Dingfelder (Uni Bonn) (until 18:00)	19:00	--- Dinner ---		

Fully assembled PXD



+ many others not on the picture

Final PXD Phase 3 Arrangement



- All 20 modules working (Sep 12)
- Pedestals of all 3.84×10^6 pixels

Slide from January PXD Meeting



... and we really made it !

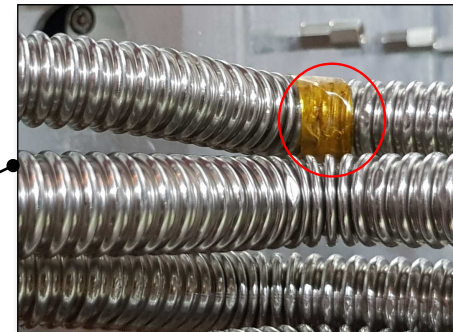
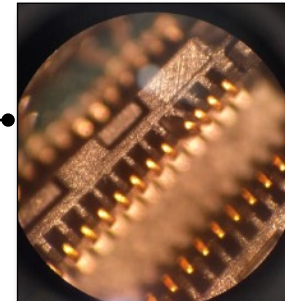
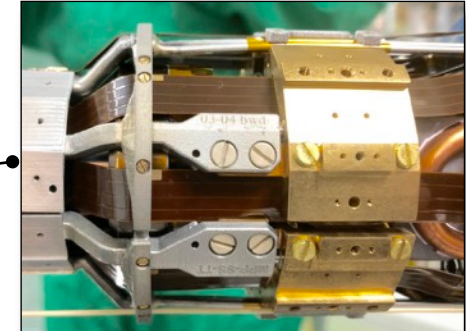
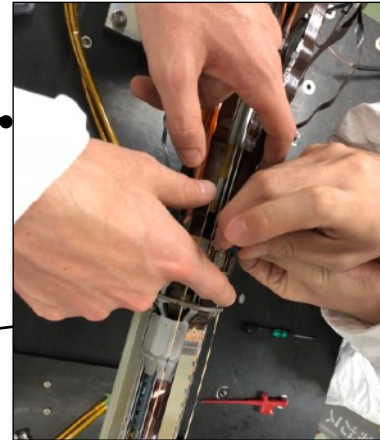
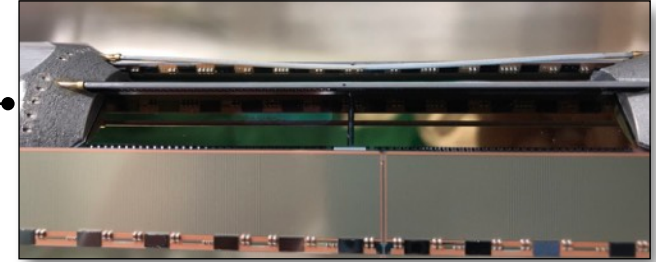
Oct 3



Big Thank You to all of you who made this possible!

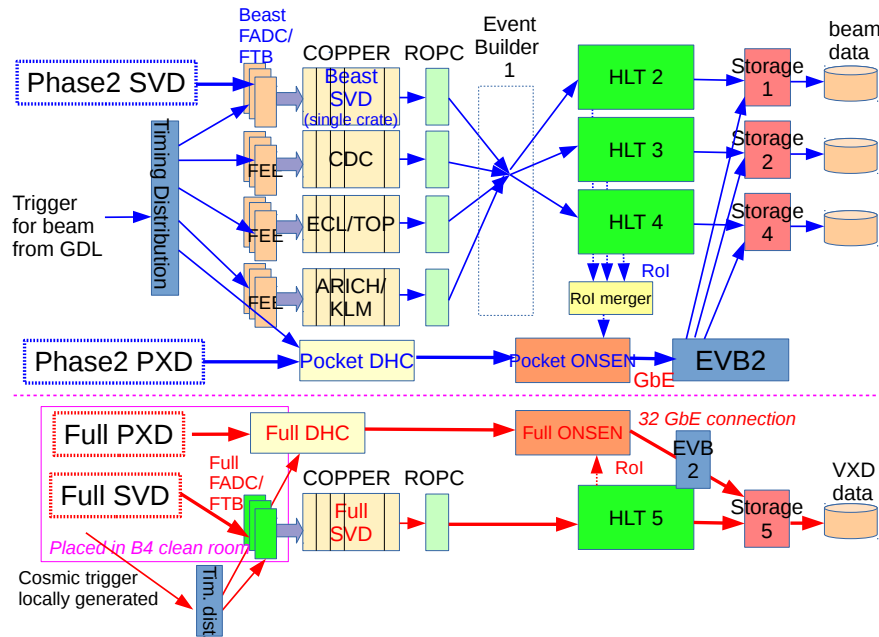
Several Lessons Learned

- Bent CFK pipes
 - ⇒ glue only on one side
- Installation of FOS sensors
 - ⇒ design temporary support
- Installation of second half shell
 - ⇒ modify brass support
- Damaged SVD CO₂ pipe during FWD PPCC installation
- Damaged PP Samtec connector
 - ⇒ use special tool from Tscharlle ...
- Damaged CO₂ flexline during CDC repair work



PXD DAQ Developments

Itoh-san Oct 3



- Full SVD readouts are already connected to COPPERs and currently being tested using "Pocket DAQ".
- A "partitioned DAQ" consisting of 1 HLT+Storage unit is already prepared.
- Run control has been implemented.
- The full (layer 1) PXD is planned to be integrated in October targeting at the start of cosmic ray run from mid. October.
- However, SVD group is requesting to use the partitioned DAQ as early as possible.
-> Target : End of August -> September.

- DHH firmware development still ongoing
 - overlapping trigger / 30 kHz operation
 - gated mode
 - data distribution / load balancing
- (Re-)install dedicated test set-up at DESY with 5 guinea pig modules
 - decouple FW development from global DAQ integration

- Next step is the integration of PXD
- The integration of full ONSEN readout with 32 fiber connections to the event builder 2 is now on-going.
- The hardware connection was already completed, and the readout test is on-going using the global DAQ (not partitioned DAQ).
- Mostly the work is on the configuration of event builder 2 and Yamagata-san is working on it.
- The work is supposed to be completed this week and then the PXD readout is moved from global to partitioned DAQ (only by changing the configuration files + minor mods to run control/GUI).
- The partitioned DAQ for VXD combined test scheduled from Oct.12 should be ready before the date.

PXD Installation Schedule

Month Calendar week	July				August					September				October					November				December				January				
	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	1	2	3	4	5
MPP																															
Glue L1 ladders L1-36 & L1-37, rework L1-21																															
Assemble HS-1p3 with hot L1 ladders (+2 L2) & Mylar																															
DESY																															
Test HS-2p3 (L1)																															
Test HS-1p3 (L1 + 2 L2) (Gated Mode tests)																															
Transport of equipment (50%) to KEK																															
B4 CR @ KEK																															
Installation of Electronics / PS / Cabling																															
Transport HS-2p3 to KEK (Aug 20)																															
Mount HS-2p3 on beam pipe & test																															
Transport HS-1p3 to KEK (Sep 4)																															
Mount HS-1p3 on beam pipe & test																															
Mount SVD half shells on beam pipe																															
VXD combined test																															
Belle II																															
Phase 2 operation																															
BEAST II removal																															
CDC repair work																															
ARICH cooling work on B4																															
Outer cable installation																															
VXD installation																															
VXD system test																															
FWD Endcap test installation																															
QCS push in																															
VXD signal test & final FWD Endcap push-in																															
Power outage (3-5) / Obon holiday (11-16)																															
B2GM / BPAC																															

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VXD system test

VXD insertion ?

- Outer service installation for PXD should be finished by Oct 20
- SVD work can start earlier
- Move VXD installation forward ⇒ more time for inner cable installation & test

[illegible]

08.10.18: Scope of the Meeting	10	carsten.niebuhr@desy.de
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