

Phase 2 Sensors in VXD Volume (Feb 2015)

sensor	contact person	number	location	DAQ	note
PXD + SVD	C. Marinas K. Nakamura	2 PXD ladders 4 SVD ladders	decided +X	Belle II DAQ	
diamond w/ PIN diode (beam BG, abort)	L. Vitale	4 diamonds 64 PIN diodes	diamond: decided	Belle II monitor DB (EPICS)	PIN diode location: around diamond and beam pipe
FE-I4 pixels (Synchrotron rad. and track multiplicity)	C. Marinas	3 arms	decided (90, 180, 270)	?	arm design has to be fixed
CLAWS (beam BG)	C. Marinas	2 ladders	decided (135 and 225)	?	
Scintillator PIN diode (beam BG)	H. Nakayama K. Nakamura	~60 (scintillator) ? (PIN diode)	not decided	?	Basically put them around QCS
BGO (Bhabha events)	J. Liao	8 (if space allows)	under discussion	BEAST DAQ	Acceptance is overlapped with PXD cooling block.
temperature (NTC), humidity (DMT242B) (crosscheck for FOS)	L. Vitale	not decided	not decided	Belle II monitor DB	
FOS + L-shape (temp. and humidity)	I. Vila D. Moya	?	?	?	sensor on outer cover?
PLUME (beam BG)	I. Ripp-Baudot	1 ladder	not decided	EPICS DB BEAST DAQ?	baseline: PLUME-2 (hopefully PLUME-3)

See backup slides for more on these systems.

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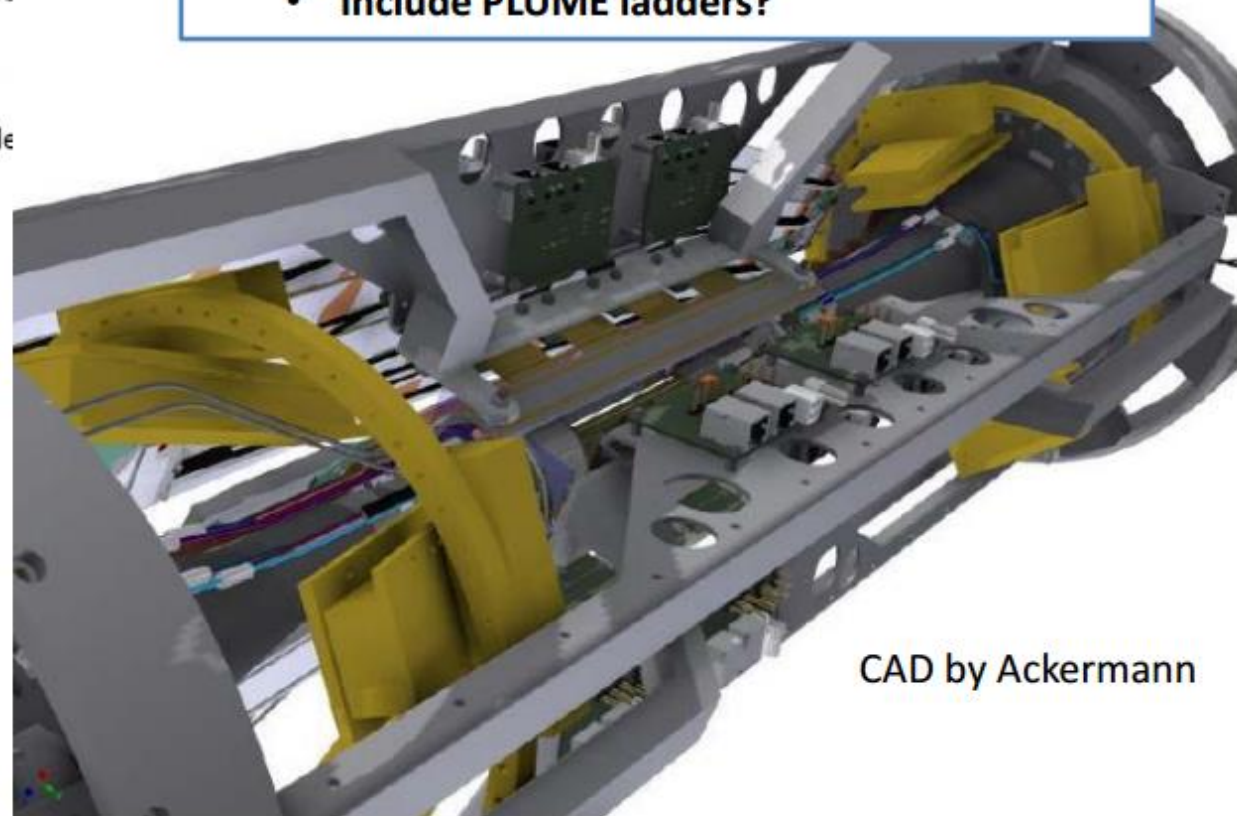
BPAC:

point and the BEAST II detector will be inserted instead of the Belle II vertex detector together with a temporary beam pipe in order to understand the machine related background. The committee urges the collaboration to develop a concrete project plan for the BEAST II detector with well justified goals and a priority list. It must take into account the required and available resources, and it should not affect the rest of the Belle II construction and commissioning effort.

BEAST Executive Board: Rank the systems and prepare the list

- 2 PXD ladders (L1+L2)
- 4 SVD layers (L3-L6)
- Thermal envelope and cooling (dry air+CO₂)
- BEAST II specific monitoring
 - Synchrotron radiation (be
- Abort systems
 - Diamonds
- General monitoring (T and RH)
 - Fibers and commercial de

- Great progress on integrating VXD sensors, BGOs, and FE-I4 sensors (x-ray measurements)
- **Important open questions –request EB guidance**
 - **Material (X_0) allowance?**
 - **Include PLUME ladders?**



CAD by Ackermann

Boosted activities to be ready for the scrutiny