



# Report from Technical Coordination

Karsten Buesser

ILD General Meeting


04.04.2017

# Interface Documents



- Document on ILD conventions and rules
  - CDI task
  - kick-off in April to have first version for Lyon
- Sub-detector Documents
  - activities in ECAL and HCAL groups
- Technical Design Document for sub-detectors
  - optional but recommended

Document on ILD Conventions and rules

	ILD conventions and rules Template	Ref.: 77777 Ed.: 0 Rev.: 3 Date: 21/10/16	Page: 1/8
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**ILD conventions and rules**

**ILD**

Prepared by: Signature Accepted  
Roman Pöschl

Approved by: Signature

**Document Change Record**


Edition	Date	Modified pages	Observations
1	21/10/16	all	Creation

Distribution: See Distribution list at the end of this document

**Elaboration starting**

Obligatory document:  
Author: Central Integration Group

Actual ICD

	Interface Control Document Template	Ref.: Ed.: 1 Rev.: 0 Date:	Page: 1/9
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**Interface Control Document Template**

**XXXXXXXX (Sub detector name)**

Prepared by: Signature Accepted Signature

Approved by: Signature

**Summary**

**Annexes**


**Document Change Record**

Edition	Revis	Date	Modified pages	Observations
1	0			

**Template updated from Si-ECAL exercising, being circulated within technical groups for comments**

Obligatory document  
Author: Subdetector group

Technical Design Document of subdetector

	Interface Control Document Template	Ref.: 77777 Ed.: 0 Rev.: 3 Date: 22/8/16	Page: 1/34
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**Technical Design Document**

**SiEcal**

Prepared by: Signature Accepted by  
Marc Anduze  
Henri Videau

Approved by: Signature

**Summary**

**Annexes**

**Document Change Record**

Edition	Revision	Date	Modified pages	Observations
0	1	7/10/16	all	Creation

Distribution: See Distribution list at the end of this document

**Subdetectors Internal structure**

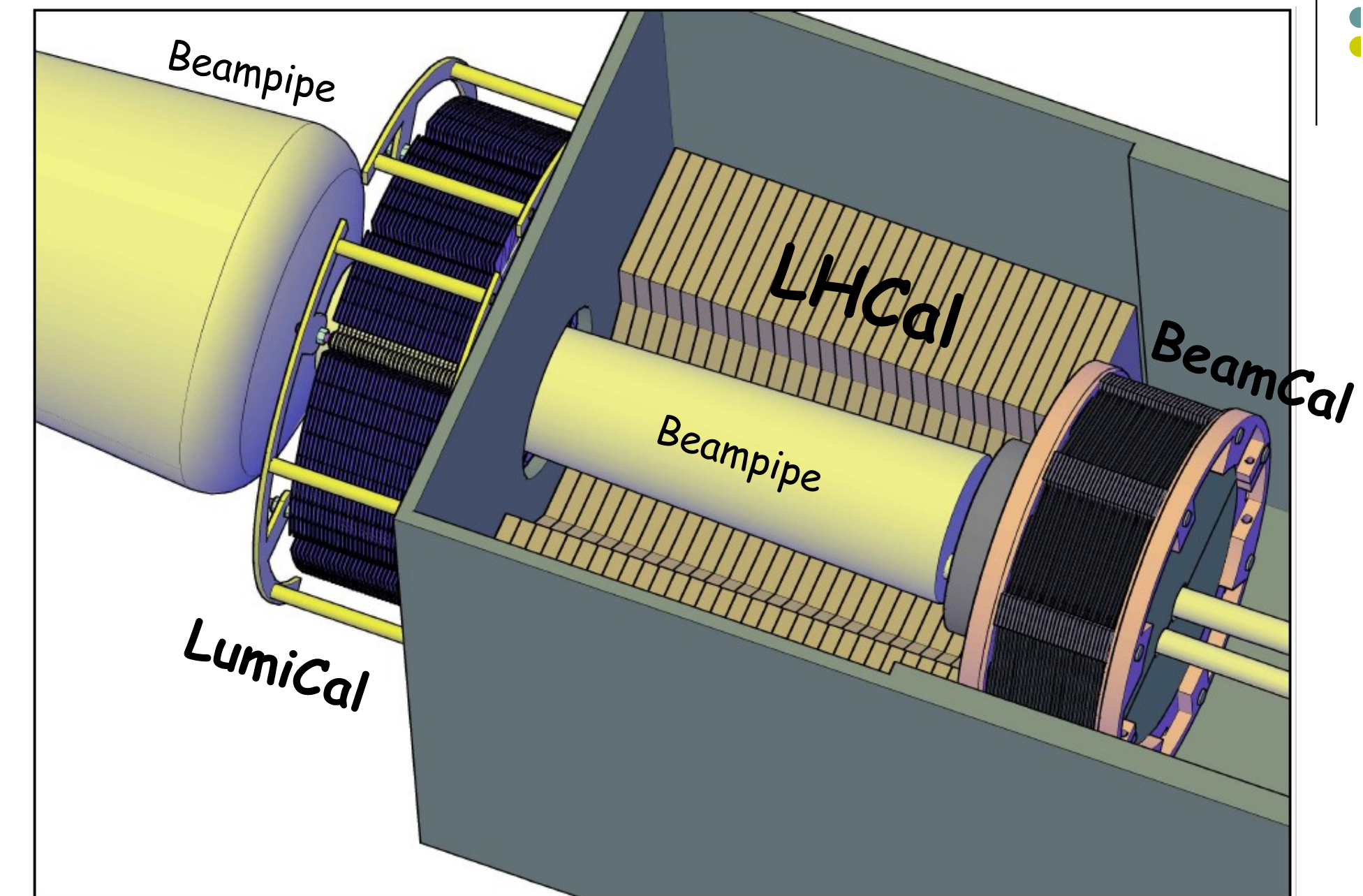
Optional document  
(Highly recommended)  
Author: Subdetector group



# Forward Region



- Implementation of forward region design status:
  - Collaboration between:
    - Strahinja Lukic, Bogdan Pawlik, Sergej Schuwalow (FCAL Collaboration)
    - Alejandro Perez Perez (Background Simulations)
    - Frank Gaede (Software)
- Status:
  - Update of geometries to new  $L^*$  is almost ready
  - Final check of numbers is under way
  - After verification, background simulations can start



# Anti-DID Task Force



- Detector Integrated Dipole
  - Aligns integral magnetic field along outgoing beam (crossing angle)
  - Mainly to reduce backgrounds on BeamCal
- Task Force status
  - Background simulations are under way
  - Technical solutions for Anti-DID under study
    - „large dipole coil“: Uwe Schneekloth
      - simulation of magnetic fields
    - „small dipole coil“: Christophe Berriaud
      - conceptual design of magnet

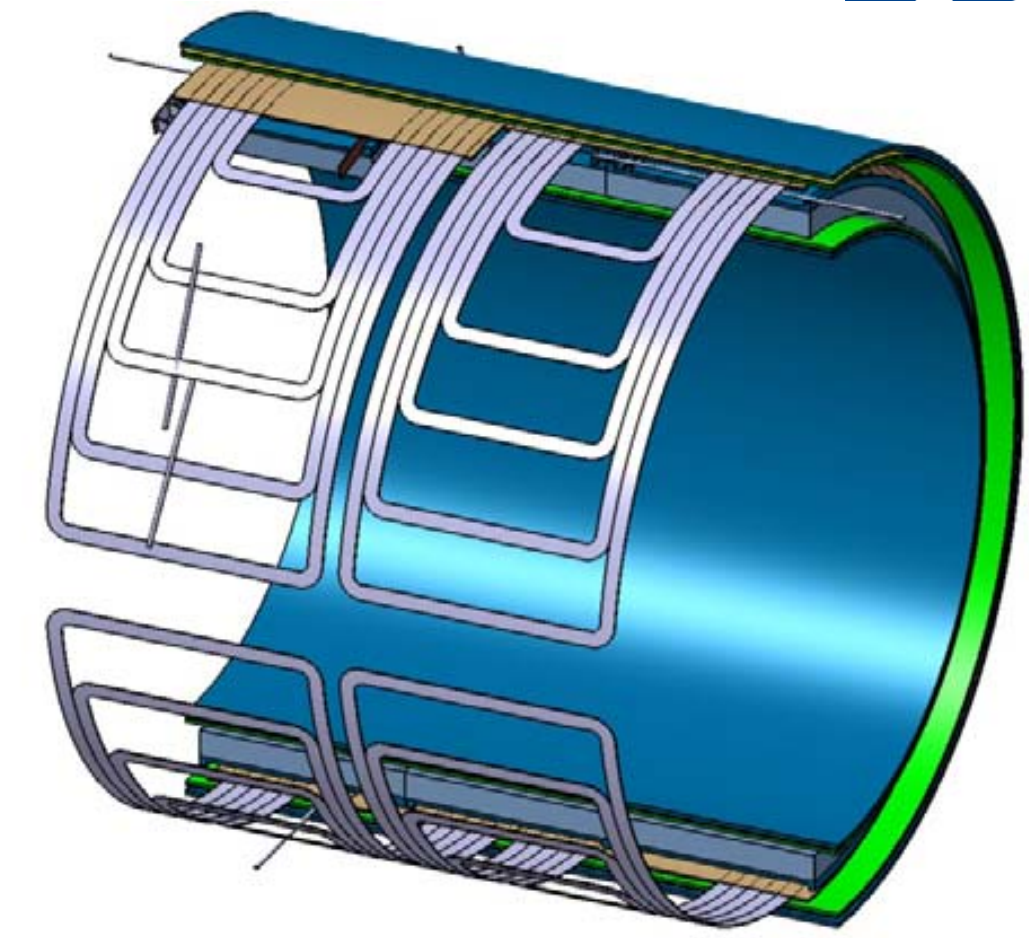
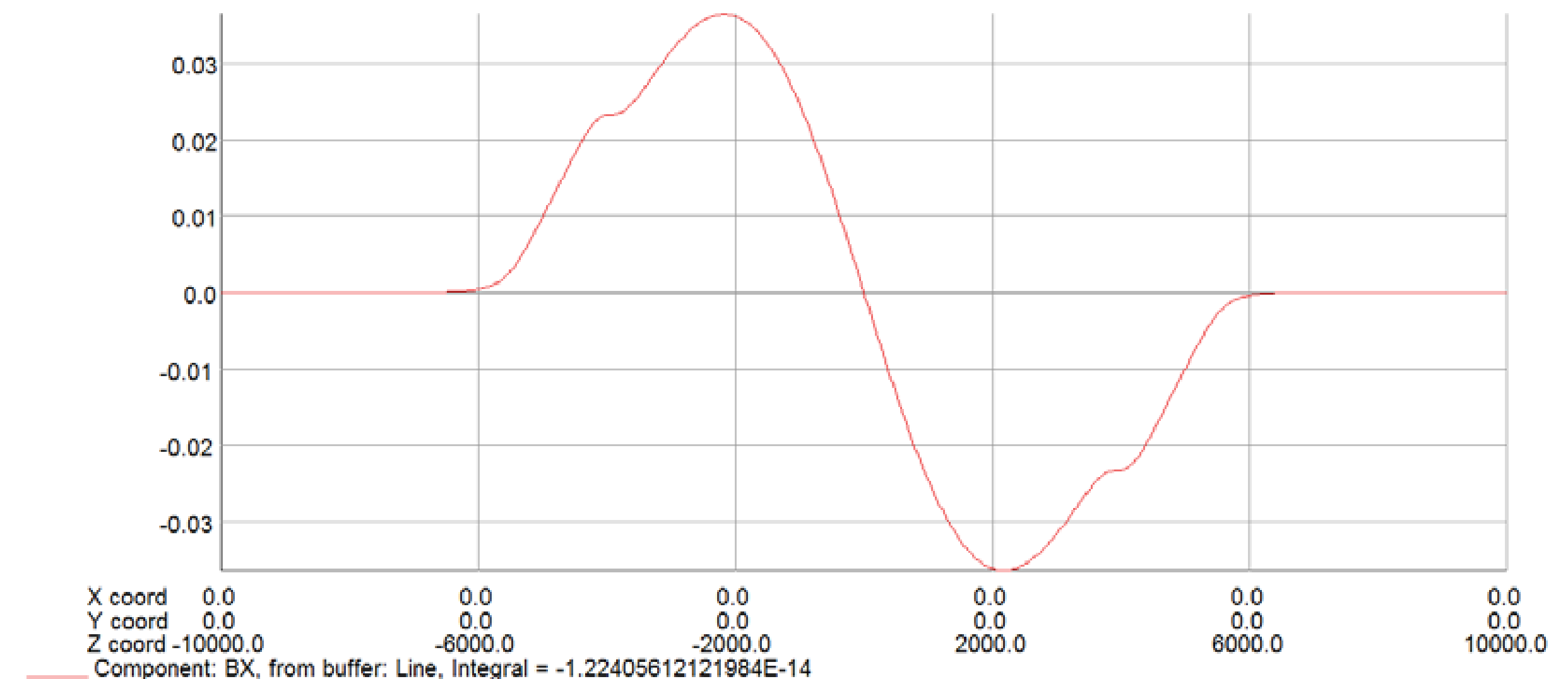


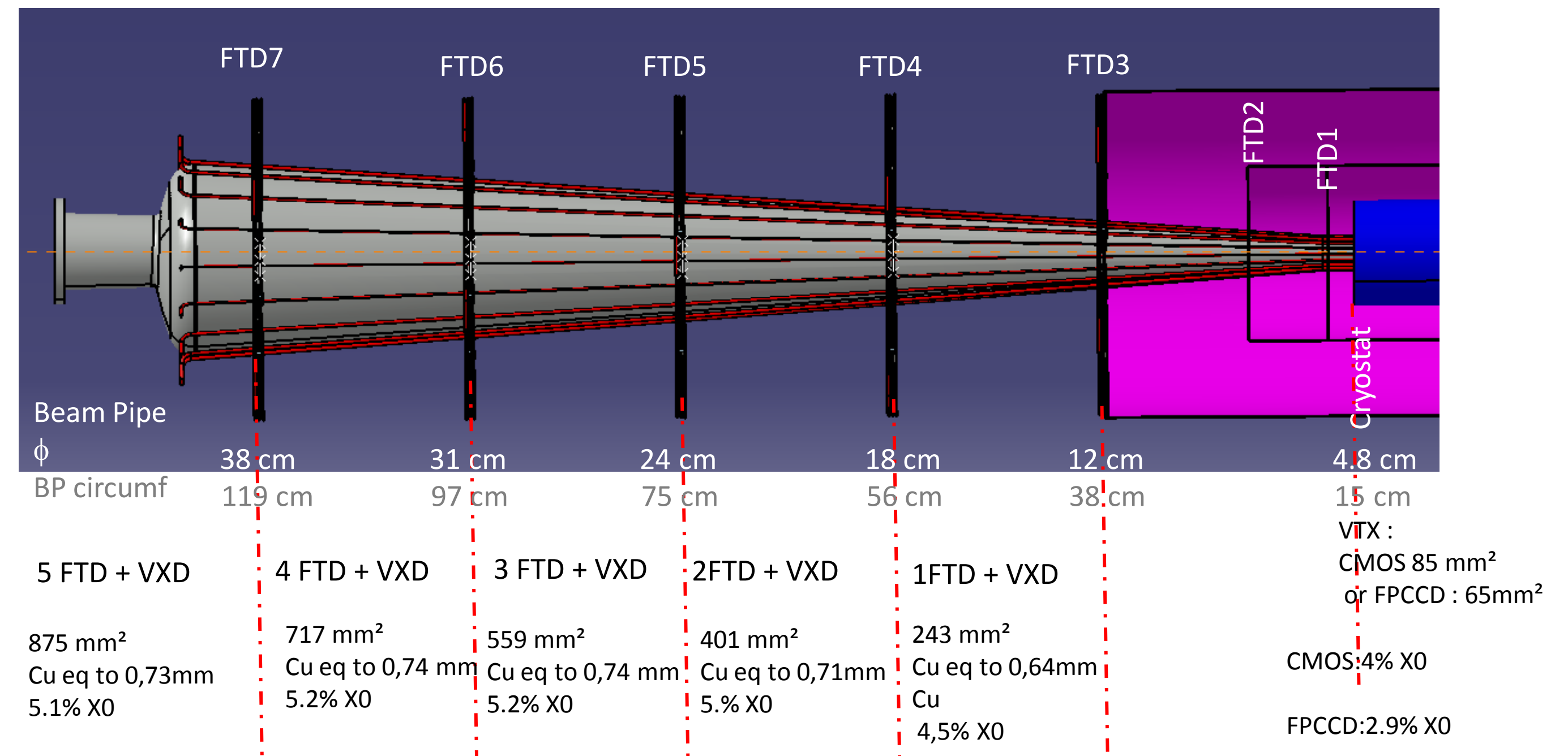
Figure 13: 3D view of the anti-DID (version 1).





# Material around the Beampipe

- „Small coil“ Anti-DID would put a dipole magnet inside the tracking system around the beam pipe
- This makes only sense if the material budget does not compromise the detector performance
- Guideline: material that is anyhow foreseen in this region
  - >9kg of cables



So, with actual data : about 5% of X0 all along the beam pipe.

That means also

- about 9 kg of material on each side
- a minimum gap between FTD supports and beam pipe of 2 cm for path of all the cables....

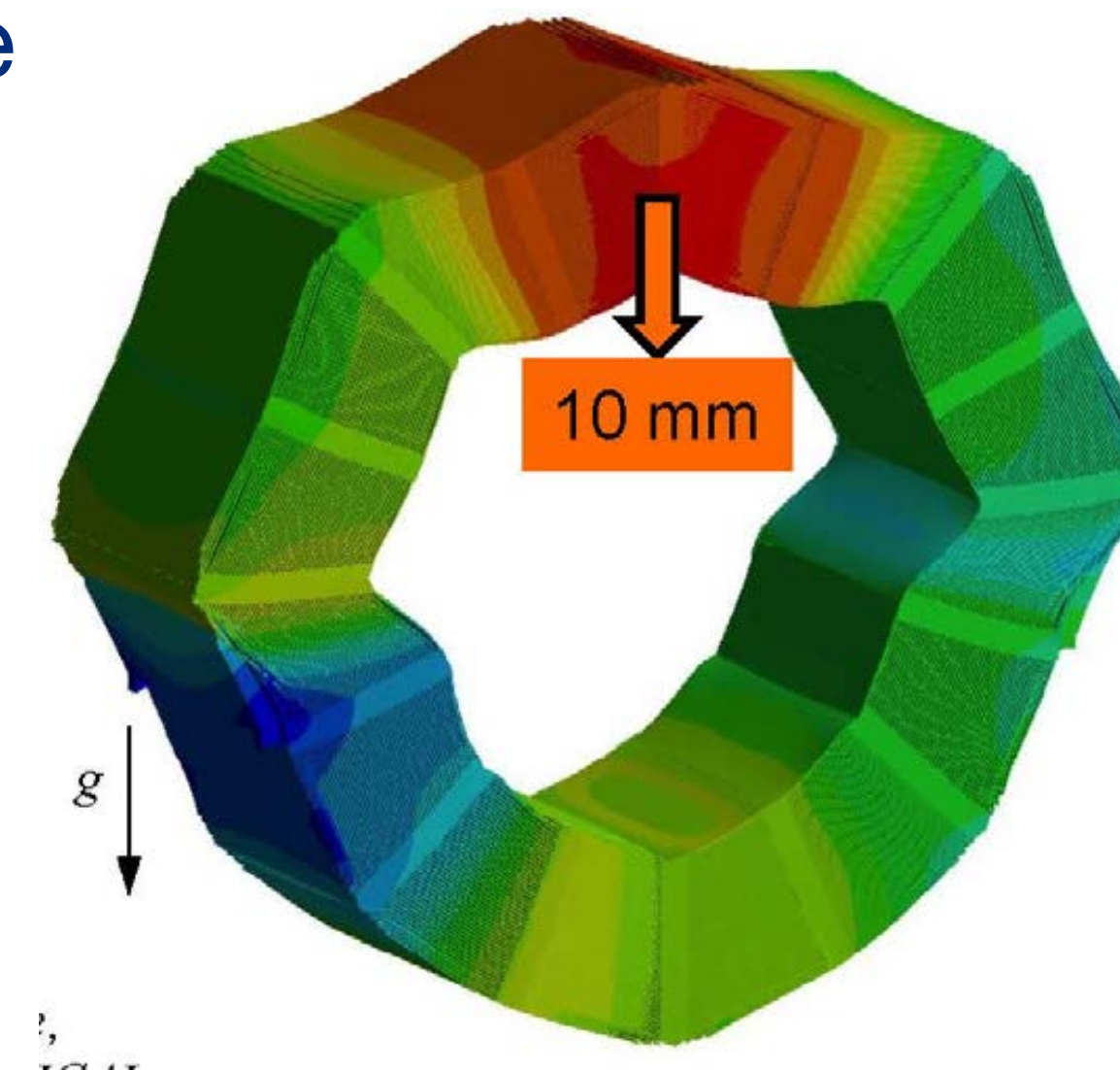
And SIT/FTD1&2 services not included...

- Mechanical design of HCAL absorber structure
- Main emphasis is on
  - mechanical stability
  - impact of cracks and support
  - electronics access and cable paths
- Mechanical CAD models of HCAL and ECAL have been exchanged between french groups and DESY to allow for cross-simulations of full wheels (HCAL+ECAL)
  - expert meeting on April 13th to discuss results

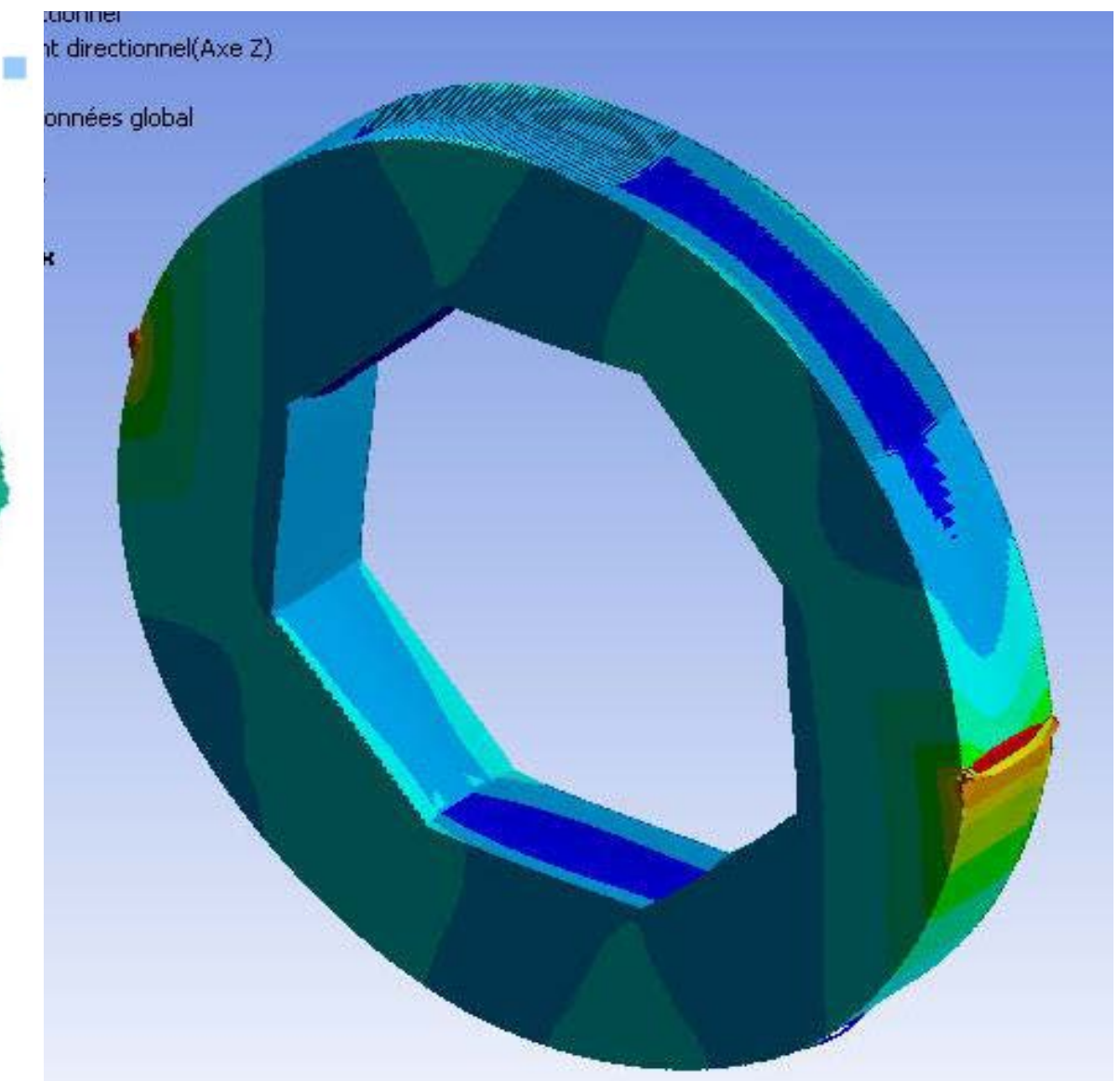
## “VT TASK FORCE”

*Investigate the two proposed  
HCAL mechanical options*

**TESLA**



**Videau**



# Technical Sessions at Lyon Workshop



- Status of Simulation Models
- MDI and Subdetector Status Reports

Wed 26/4

09:00	<b>VXD, SIT, SET, FTD</b> <i>Marcel Vos (tbc)</i> <i>Lyon</i> 09:00 - 09:40
	<b>TPC</b> <i>Dimitra Tsionou (tbc)</i> <i>Lyon</i> 09:40 - 10:05
10:00	<b>Beam Pipe, Cables and Services</b> <i>Karsten Buesser</i> <i>Lyon</i> 10:05 - 10:30
	<b>Coffee</b> <i>Lyon</i> 10:40 - 10:55
11:00	<b>LCal, LHCal, BeamCal</b> <i>Bogdan Pawlik (tbc)</i> <i>Lyon</i> 10:55 - 11:20
	<b>SiW/SciW-ECal, AHCal,SDHcal</b> <i>Daniel Jeans (tbc)</i> <i>Lyon</i> 11:20 - 11:55
12:00	<b>Hybrid RPC/Sci Simulations - Impact - (SDHcal)</b> <i>Lyon</i> 11:55 - 12:15
	<b>Hybrid RPC/Sci Simulations - Impact (AHcal)</b> <i>Lyon</i> 12:15 - 12:35
	<b>Muon, Coil</b> <i>Nicola D'Ascenzo (tbc)</i> <i>Lyon</i> 12:35 - 12:55

	<b>Polarimetry</b> <i>Robert Karl</i> <i>Lyon</i> 14:30 - 14:55
15:00	<b>MDI, Detector Integration, Interface Documents</b> <i>Karsten Buesser</i> <i>Lyon</i> 14:55 - 15:20
	<b>Vertex Detector</b> <i>Lyon</i> 15:20 - 15:45
	<b>Tracking System</b> <i>Lyon</i> 15:45 - 16:10
16:00	<b>Coffee</b> <i>Lyon</i> 16:10 - 16:30
	<b>ECAL</b> <i>Lyon</i> 16:30 - 16:55
17:00	<b>HCAL</b> <i>Lyon</i> 16:55 - 17:20
	<b>Very Forward Systems</b> <i>Lyon</i> 17:20 - 17:45
	<b>Iron Instrumentation</b> <i>Lyon</i> 17:45 - 18:10
18:00	<b>DAQ</b> <i>Lyon</i> 18:10 - 18:30



# Technical Sessions at Lyon Workshop



- Anti-DID Task Force

	Lyon		
	Anti-DID Large Coil Design	Uwe Schneekloth	
	Lyon	11:20 - 11:45	
12:00	Interim Report from Toshiba/Hitachi Studies on Solenoid and Anti-DID		
	Anti-DID Small Coil Design	Christophe Berriaud (tbc)	
	Lyon	12:10 - 12:35	
	Beamstrahlung Background Simulations	Alejandro Perez Perez (tbc)	
13:00	Lunch		

- VT Task Force

	Standard Reference Earthquake Parameters	Toshiaki Tauchi
	Lyon	14:30 - 14:50
15:00	Mechanical Computations: TESLA	
	Lyon	14:50 - 15:10
	Mechanical Computations: Videau	
	Lyon	15:10 - 15:30
	Status of Mechanical Options in ILD Simulation	Frank Gaede (tbc)
	Lyon	15:30 - 15:50
16:00	Coffee	
	Lyon	16:00 - 16:20
	Crack Effects: TESLA	
	Lyon	16:20 - 16:40
	Crack Effects: Videau	
	Lyon	16:40 - 17:00
17:00	Signal Paths and Accessibility: TESLA	
	Lyon	17:00 - 17:20
	Signal Paths and Accessibility: Videau	
	Lyon	17:20 - 17:40



# Mini-Workshop May 16, KEK



## Mini-Workshop on ILC Infrastructure and CFS for Physics and Detectors

May 16, 2017  
KEK  
Asia/Tokyo timezone


Overview

Timetable

Registration


Participant List


Support


 [karsten.buesser@desy.de](mailto:karsten.buesser@desy.de)


This Mini-Workshop is dedicated to discussions on the detector driven infrastructure needs for the ILC campus at the IP and at the central lab. Topics to be discussed include:


- Latest news on the IP area, results from test drillings, adaptations of the surface infrastructure to the new site;
- Requirements from ILD and SiD for surface infrastructure: assembly and buffer space, cranes, transportation;
- Detector assembly plans with interdependencies on required infrastructures;
- Implications of machine and detector staging scenarios;
- Solenoid coil and Anti-DID;
- Requirements for central lab.


**Starts** May 16, 2017 09:00  
**Ends** May 16, 2017 18:00  
Asia/Tokyo


 **KEK**  
Ni-Go-Kan Building (K02), Room 101

 **Karsten Buesser**  
Yasuhiro Sugimoto

 **Materials**  
There are no materials yet.



 Vidyo connection for the workshop:  
<https://vidyoportal.cern.ch/join/JJ1s0srYdnjOjs8l1DF75zqVEw>

 **Registration**  
You have registered for this event.

[See details >](#)