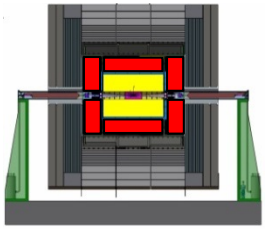
Status of ILD Engineering Model

Management interfaces



Since the last integration meeting in Orsay (October 2015):

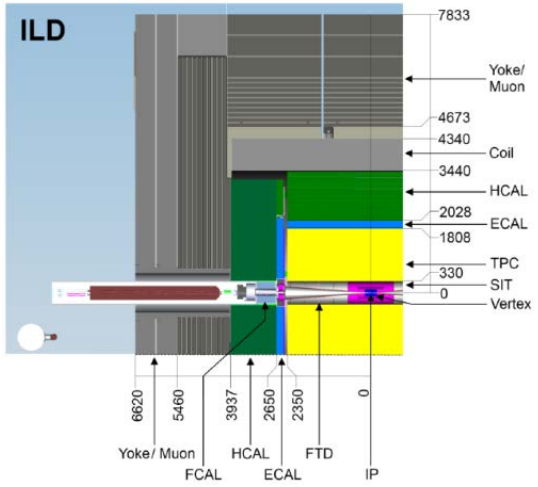
LAL still collect all informations (3D model, services placeholders..) for a new CAD version.

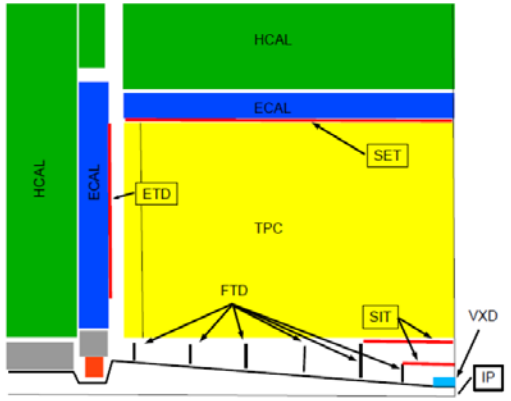
- *June 2014 SDHCAL update design sent by LPNL*

What append, since october 2015 :

- *October 2015: Inner part step file sent to Miguel Angel Villarejo from IFIC (Valencia Univ.) : update FTD disks, their cabling, cooling services*

- *January 2016: Meeting with Henri Videau to start the ICD document.*



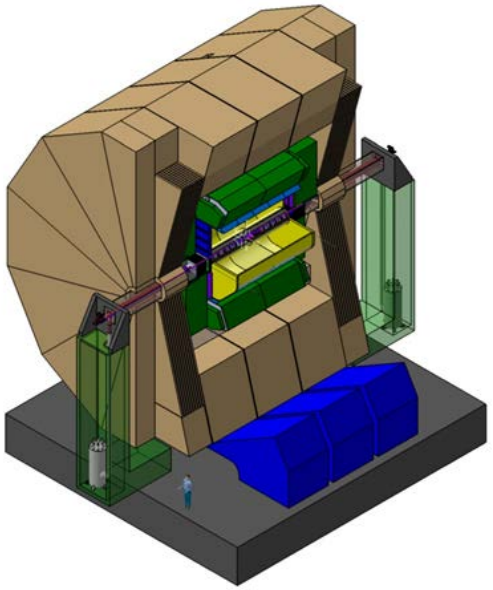


In 2015 Studies of an important modification:

Reminder

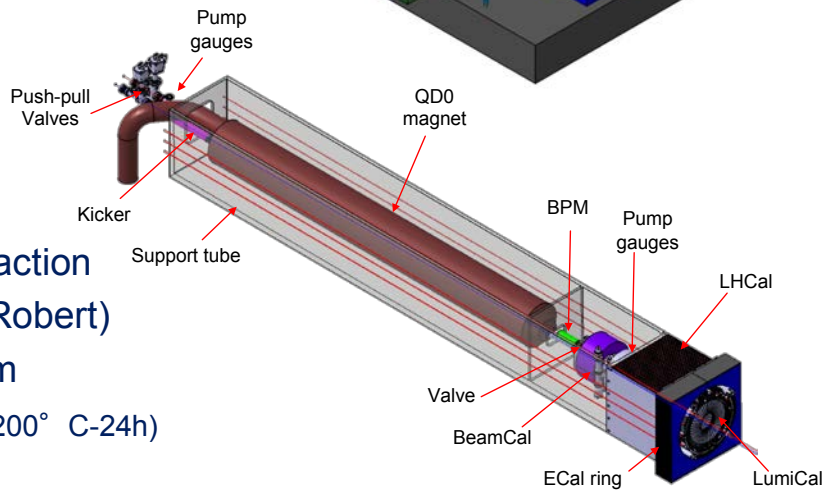
Reduce the distance of the L* to the IP, less than 4m (actually : 4,5m)

Need to approach the QD0 near to IP



Lot of consequences

- move the vacuum pump putting before the QD0?
- Reduce the thickness of LHCAL ?
-



Start vacuum studies -> vacuum teams from DESY and LAL

•There is not enough space to move the pump.

• Without pump vacuum increases from 10 to 150nTorr in interaction region (fortunately only little effect on background -> Talk by Robert)

• In case pump turns still out to be necessary LAL vacuum team propose to put NEG pump inside the pipe (deposite TiZrV 1,5µm 200° C-24h) (Technical note in preparation)

• So far only static vacuum, what about dynamic vacuum?

- **Waiting for the result and validation of physical simulation.**
- **Waiting for your green light to upgrade the 3D model.**

Proposal of an Interface Control Document (ICD):

Reminder

Purpose of this document is:

- To know and record technical details of each subdetector
- To understand the consequences at the interfaces (gap, fixations, weight,)
- Follow up of different progress
-

One document by sub detector

Enter all technical details you know today (dimensions, weight, attachment points, center of gravity, positioning constraints, services, power consumption, thermal dissipation, integration specfications,)

Items may be missing (Please help actively to improve the document)

Each ICD will evolve during the phase of study.

The length and diameter of the experience could change. With ICD document, that reduce the risk to forget an item.

Today no feedback from collaboration .

Table of contents Interface Control Document

Conclusion

- Let me know about the progress of your model
- Fill the Interface Control Document (ICD)

Thank you for your attention