



Towards the ILD_01 model in MOKKA

ILD Software experts at Cern

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A first release for this week 1:

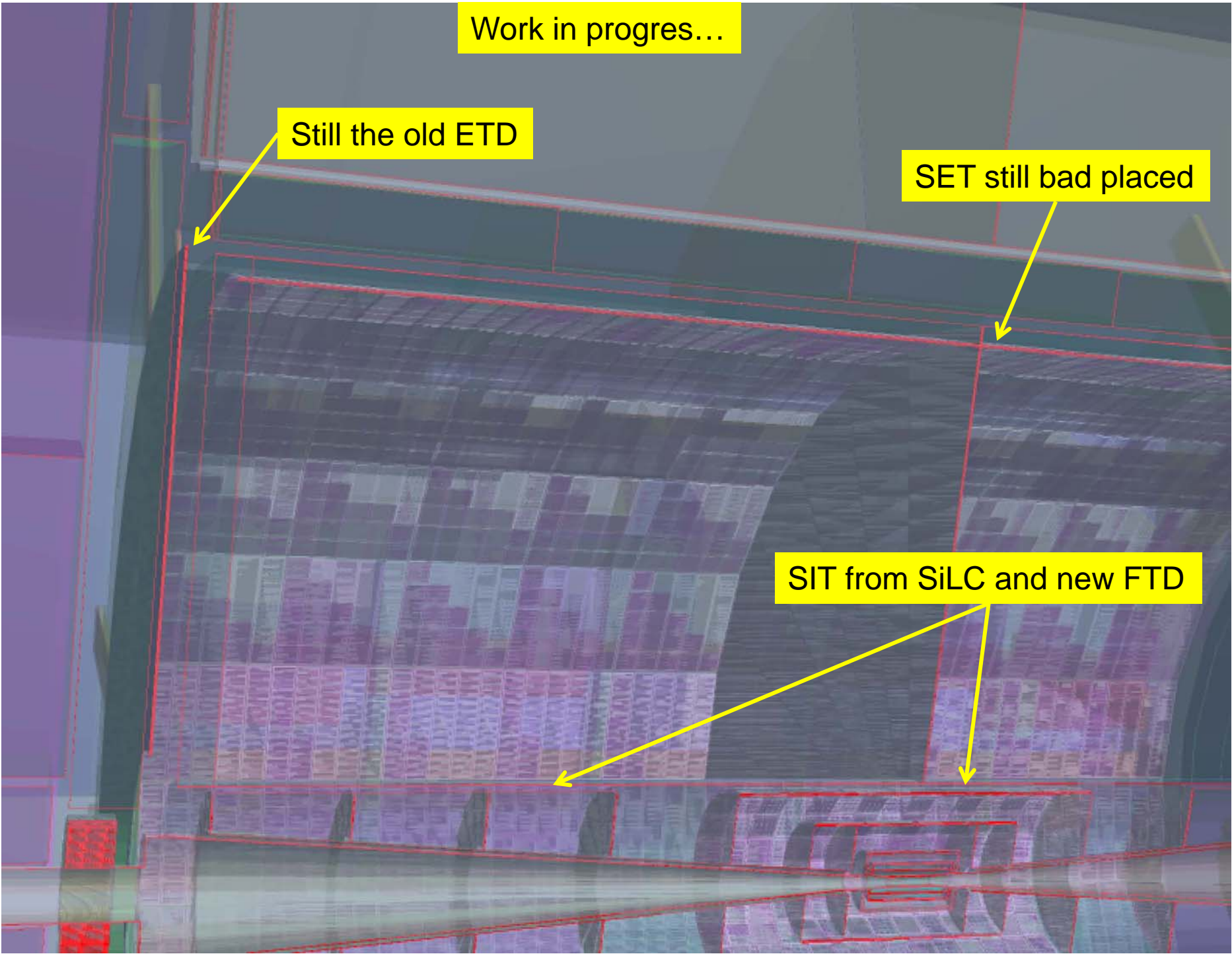
- Internal Si tracker devices:
 - VXD missing external cables and services
 - SIT, SET and ETD from SiLC without overlaps, but missing external supports and cables
 - FTD with a detailed geometry description, including internal supports and cables for disks 4, 5, 6 and 7, but still missing:
 - a new implementation for disks 1,2 and 3.
 - external supports and cables for all

Work in progres...

Still the old ETD

SET still bad placed

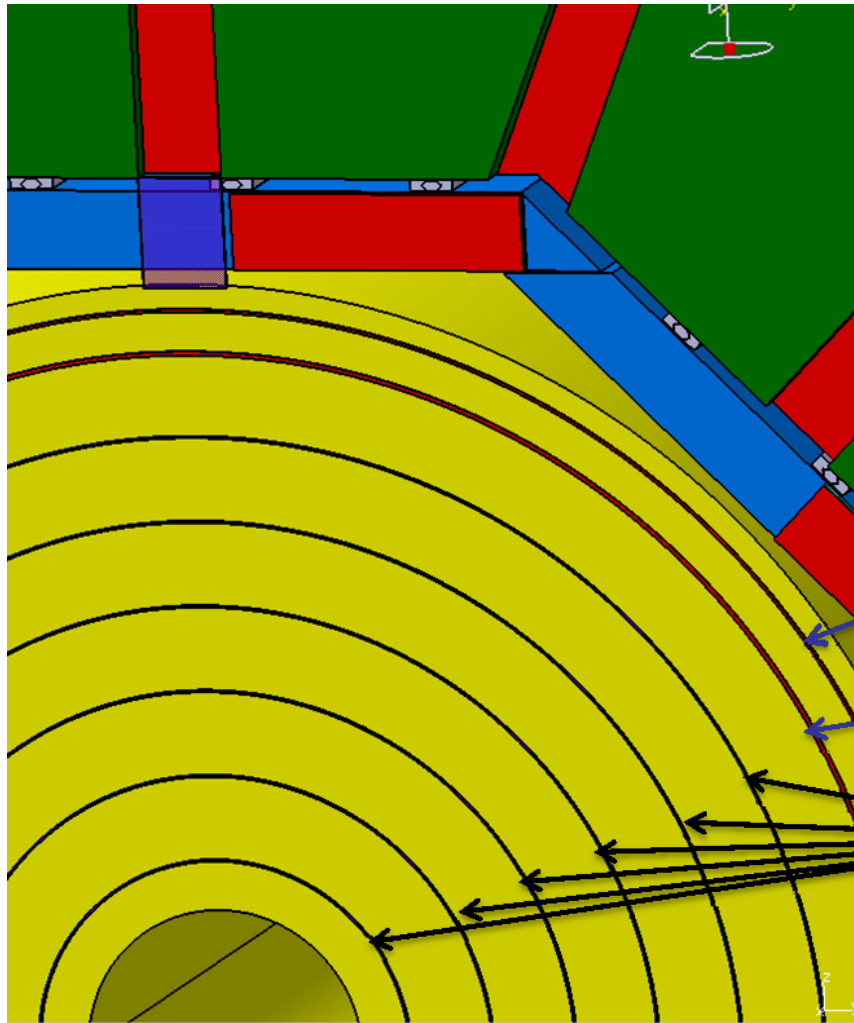
SIT from SiLC and new FTD



A first release for this week 2:

- TPC as before, with **services**
- Ecal mixing Si-Sc (thanks to Gabriel) with **support, cables and services**
- AHcal with electronics inside layers next to the Barrel-end cap gaps (thanks to Angela) and **support, cables and services**
 - *All external supports, cables and services for TPC, Ecal and AHcal drivers are implemented in the new driver Services (thanks to Gabriel)*

Barrel services : dead materials



rings of equivalent thickness
in copper

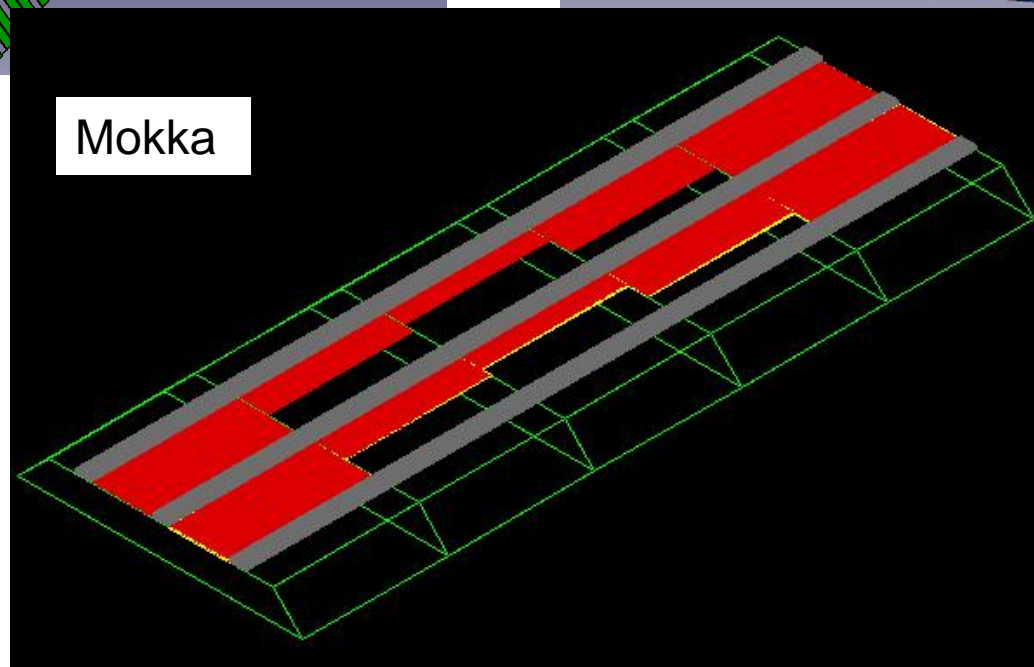
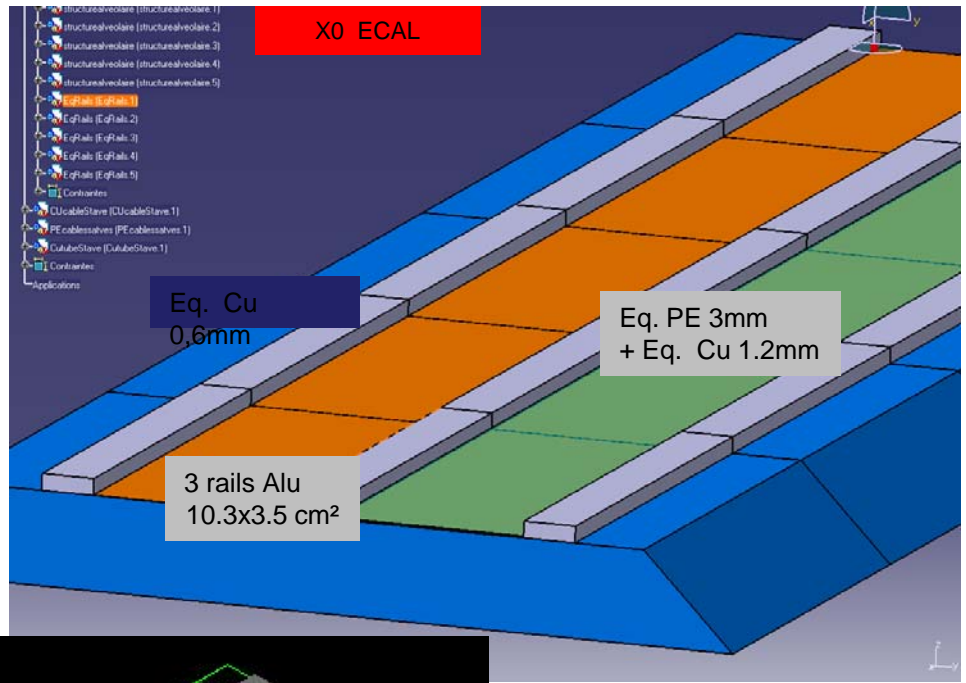
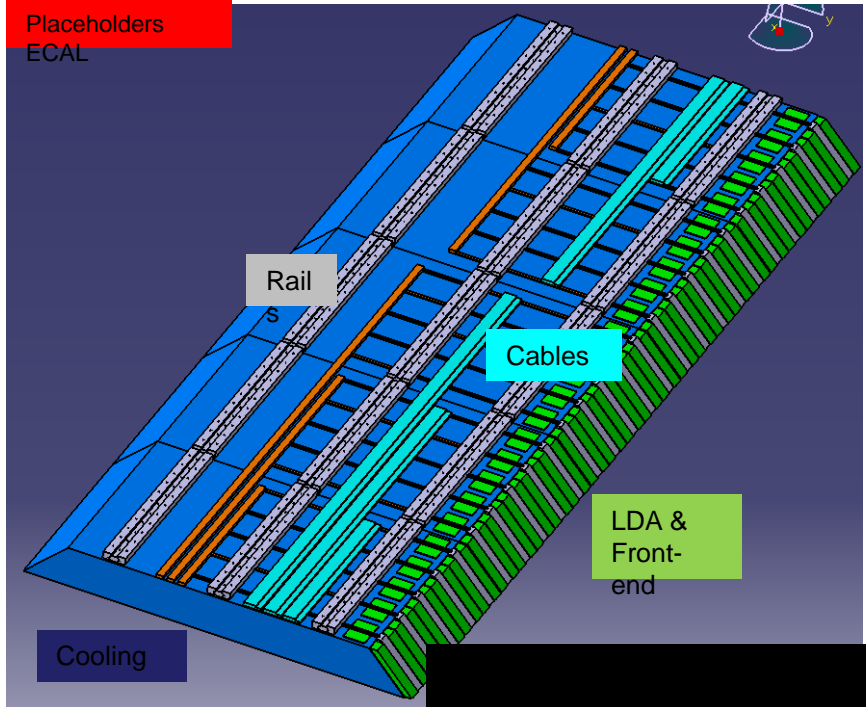
Liquid supply ring 7x2.7 mm²

Vapor return ring 10x2.8 mm²

6 Cooling tubes 4x1.9 mm²

IN MOKKA !

Ecal-Hcal



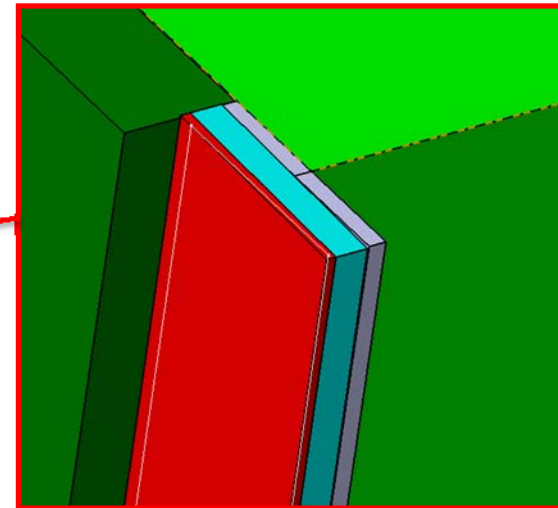
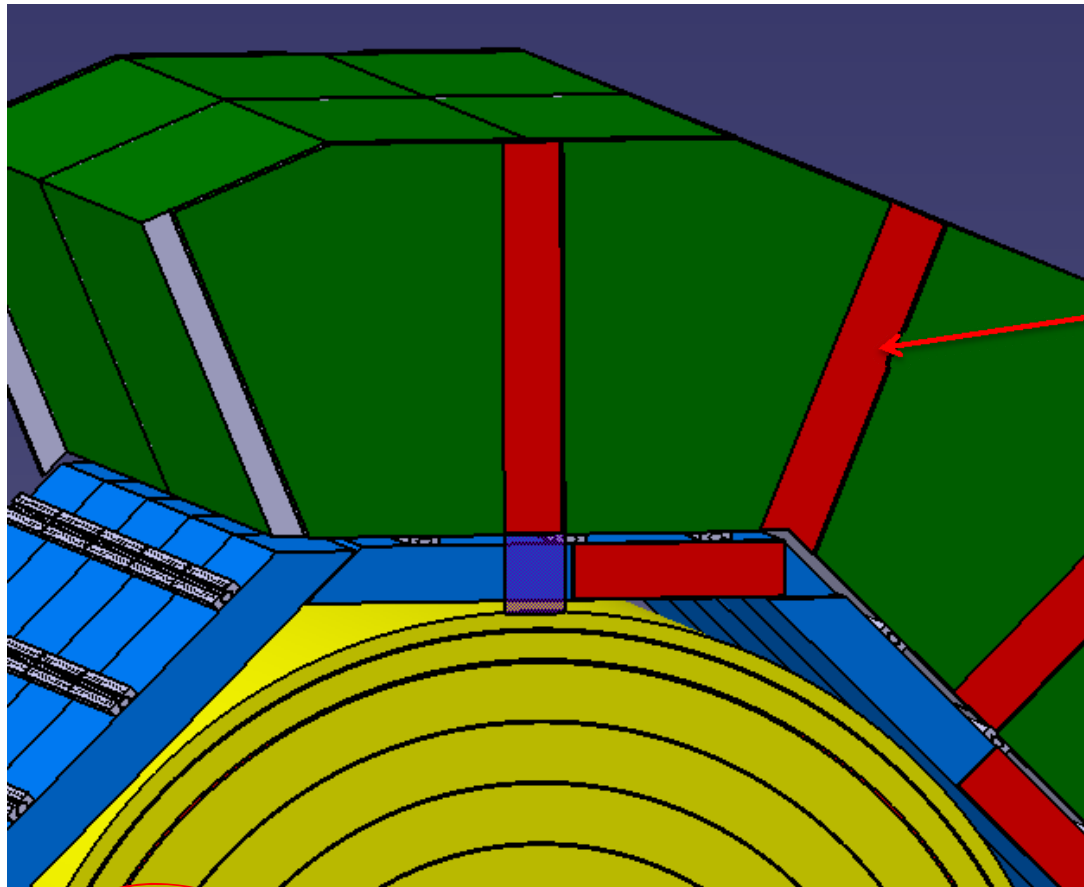
C.Clerc

In the 16 ways in front of Hcal

- Support SS 1.5 cm thick
- Polyethylene
- Cu

	Z-	Z+	Average
Cu (mm)	0,82	0,74	0,78
Cu XO	57,01%	51,41%	54,21%
PE	2,75	2,56	2,65
PE XO	5,85%	5,44%	5,65%

In MOKKA !



C.Clerc

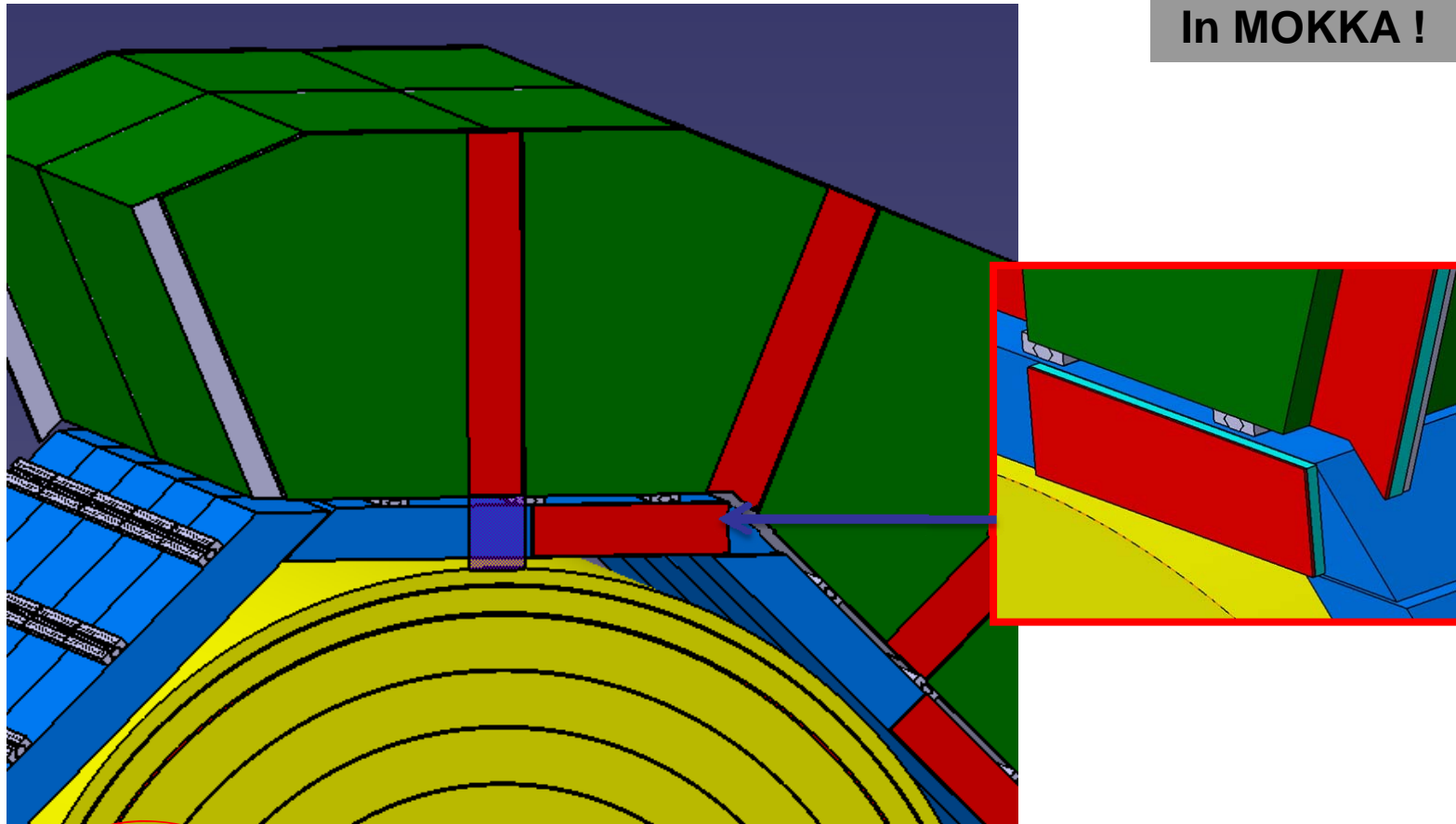
In the 8 ways in front of Ecal stave

- Polyethylene
- Cu


Ecal front part

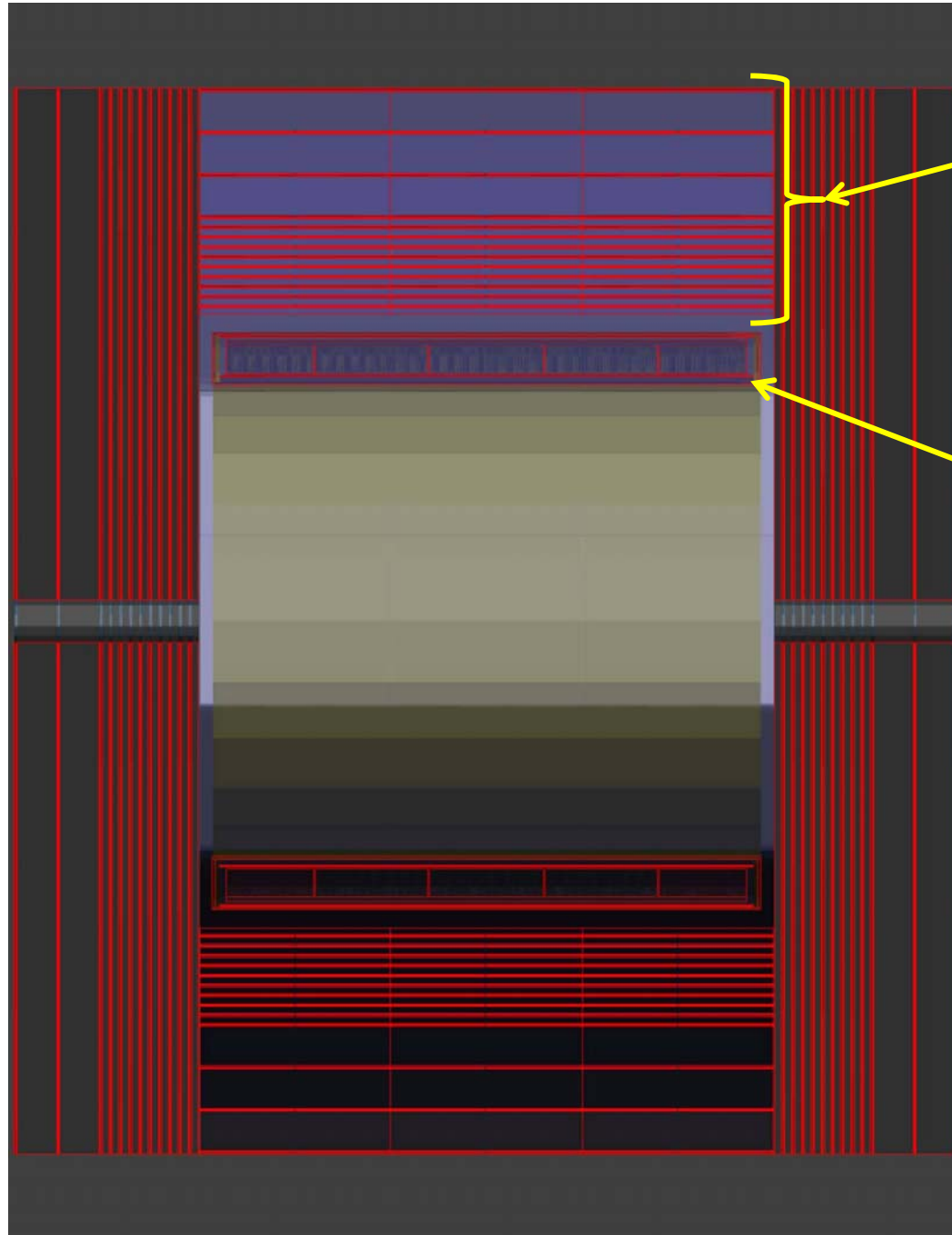
	Z-	Z+	Average
Cu (mm)	0,52	0,35	0,44
Cu XO	36,34%	24,22%	30,28%
PE	1,24	0,83	1,04
PE XO	2,65%	2,20%	2,43%

In MOKKA !



A first release for this week 3:

- Coil and Yoke from Saleviev
 - A better geometry description
 - But muons chambers to be foreseen
- New Lumical from Bogdan, faster and with a better geometry description
- BeamCal from Sailer
 - a better implementation for CLIC
 - But to check with the ILD baseline
- The old LHcal 



Muon chambers
inside Yoke in
the right place?

Detailed Coil,
but with muons
chambers
inside?

And next ?

- Probably a few weeks to check, debug and improve this new release
- But still missing for the DBD studies:
 - Disks 1,2 and 3 for the FTD ? (Jordi?)
 - External supports, services and cables for VXD, SIT, FTD and SET ?
 - **The all depends on mechanical designs which don't exist yet !** (Mathieu & Henri working on an external support for SIT and FTD...)
- So impossible to define a timescale.

Conclusion

- A first ILD_01 “unstable” model will be released this week with a new Mokka tag
- A few weeks are necessary to check, debug and improve this release
- More developments depends on mechanical designs
- So impossible to define a timescale for an ILD_01 model in simulation, for the DBD studies.