



# The simulation of the forward the cone and others

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Shapes and materials

A contribution to the software meeting



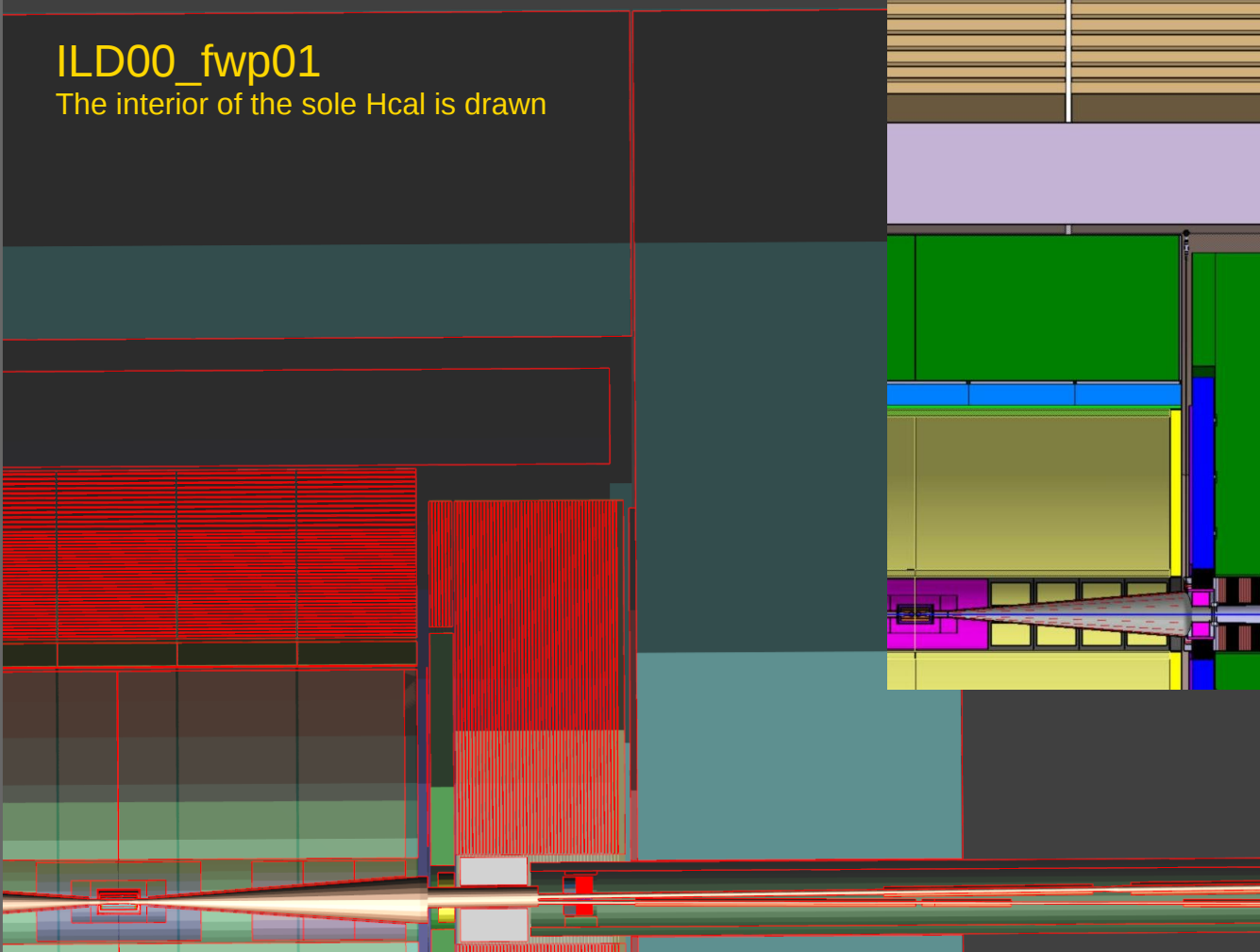
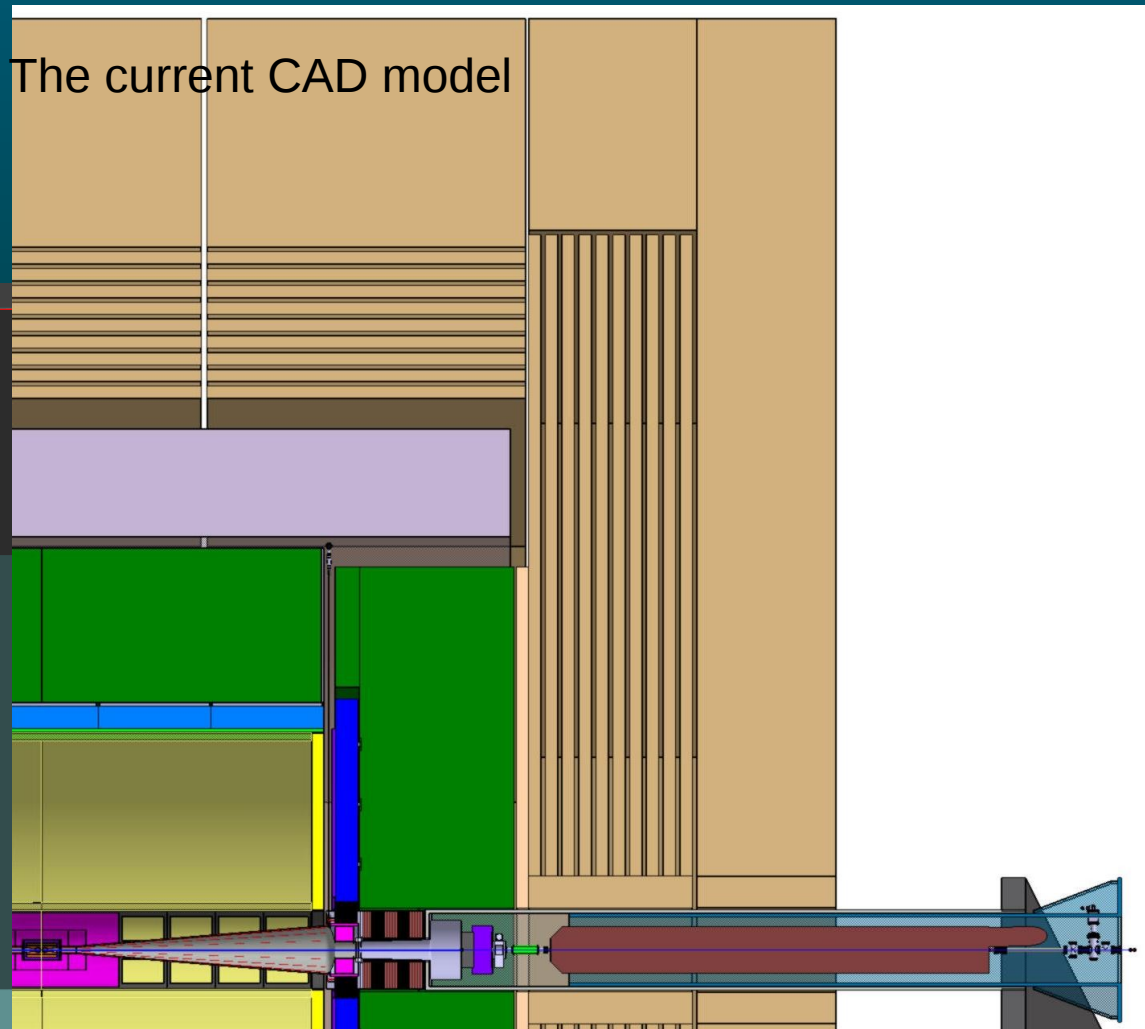


A strong similarity

Lacking fixtures and floating dead material

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The interior of the sole Hcal is drawn





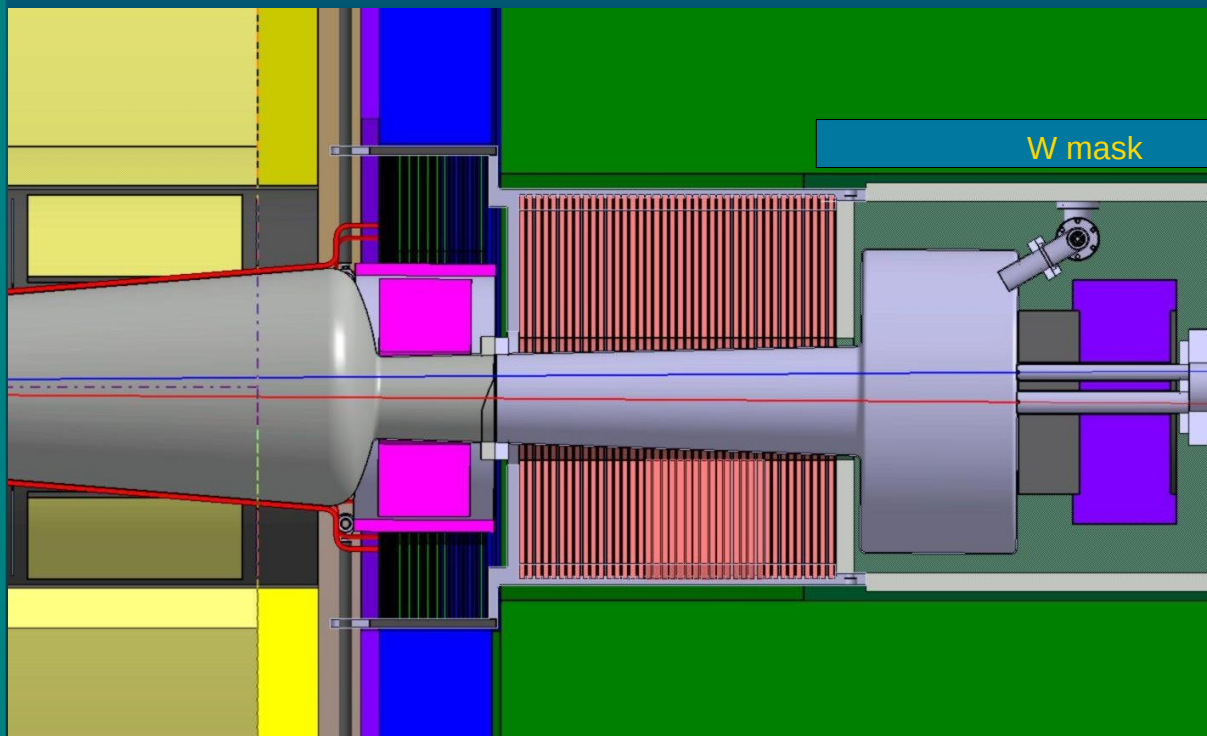
But be aware that the concept will still evolve

We need to know when the design should be essentially frozen to enable a large simulation ,  
Defining milestones for the different elements.

Examples of evolutions:

The thickness of the yoke,  
The number of layers and the thickness of the ECAL  
The thickness of the TPC field cage or endplate  
The structure of the inner detectors,  
...

Around the beam →



Do not forget that the mechanical concept is by no means close to final

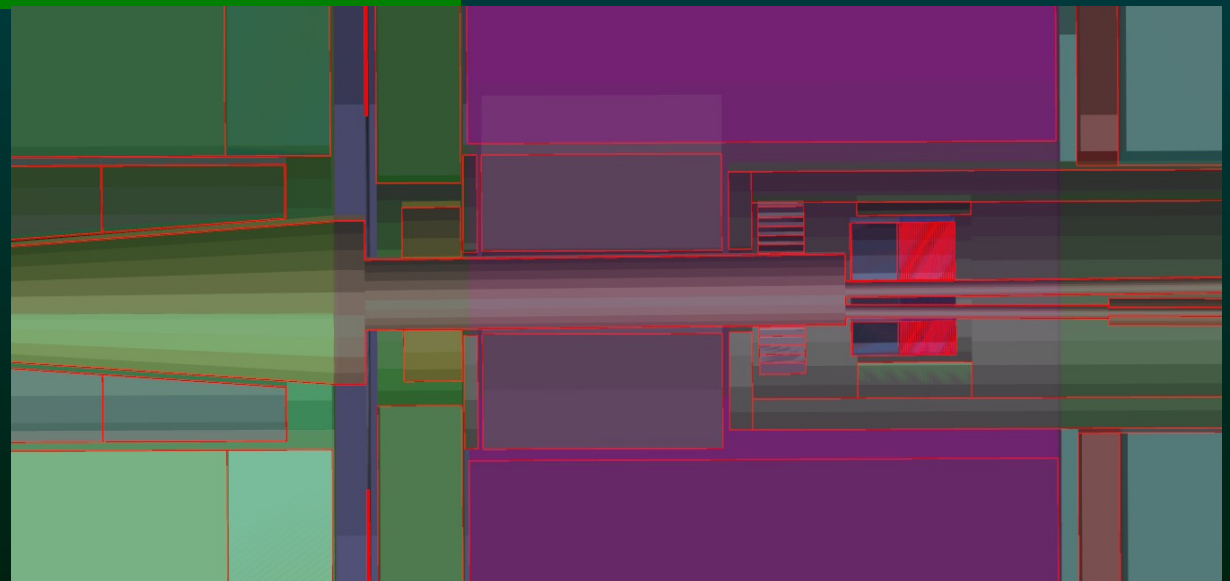
Almost all the features are there

Beam tube: the thickness is different the cupola is absent, the services around are missing

Lcal, placement slightly different  
ECAL ring special handling

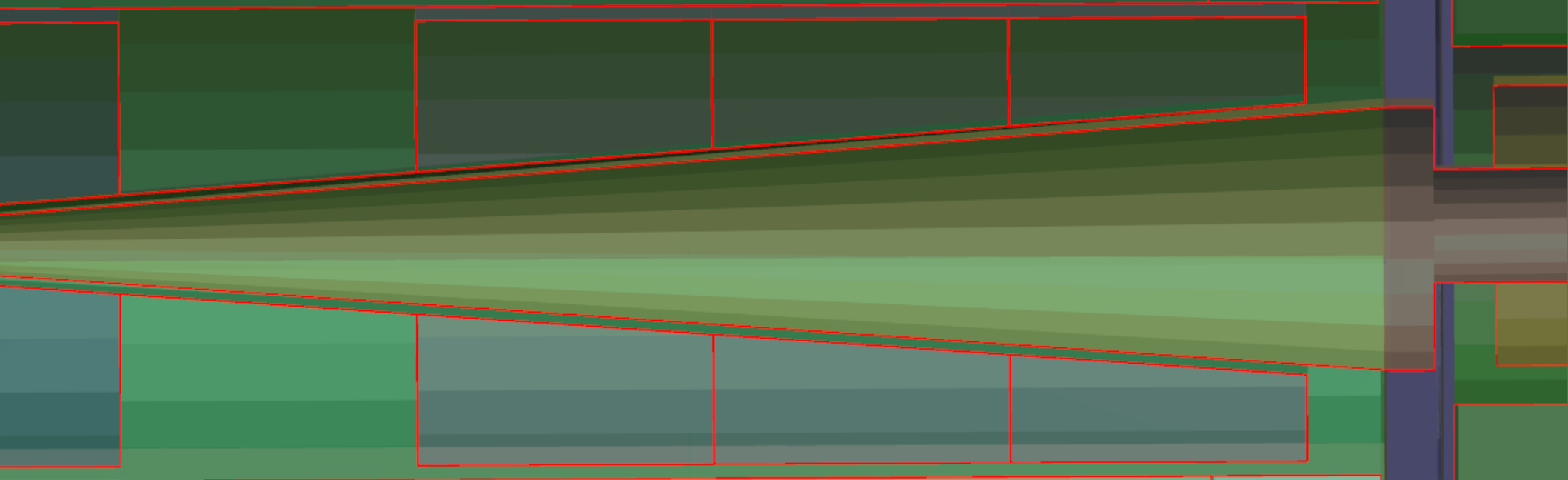
LHCAL fixtures  
W mask  
Support tube square  
Beam tube conical  
Pump  
Bcal shielding absent in CAD

This part is still under design  
modifications of the tube, ...



## Beam tube and inner detectors structure

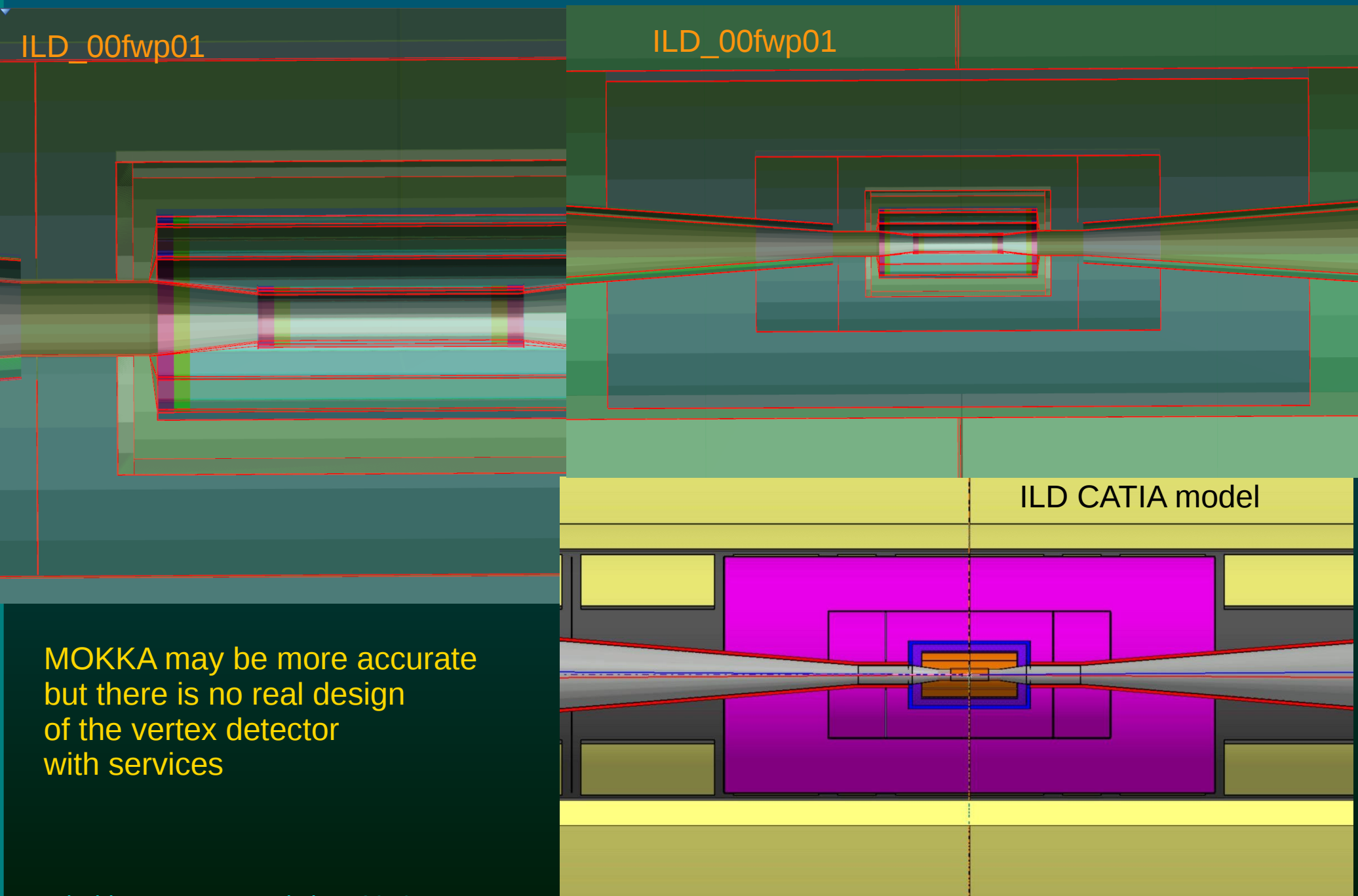
The current CAD beam tube has reinforcements at the place of the disks  
There exist no real drawing of the inner support structure and detectors



Remedy: Identify people to take care of

The idea would rather be that there is only one inner rigid structure for SIT, forward disks, beam tube, etc.

It would hang from the TPC end-plates and could maintain the inner field cage



MOKKA may be more accurate  
but there is no real design  
of the vertex detector  
with services



The model in MOKKA is pretty close to mechanical design  
but this design does not exist really in many places

The main drawback may be that the amount of dead material,  
in the absence of cables and services  
is probably largely underestimated, what is the impact?

It is clear that we are not doing the final design  
But still trying to optimise the detector, sizes and technologies

Under this assumption we should push for a really adequate modelling  
of the differences between models, more than their common features.

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# ILD Workshop 2010



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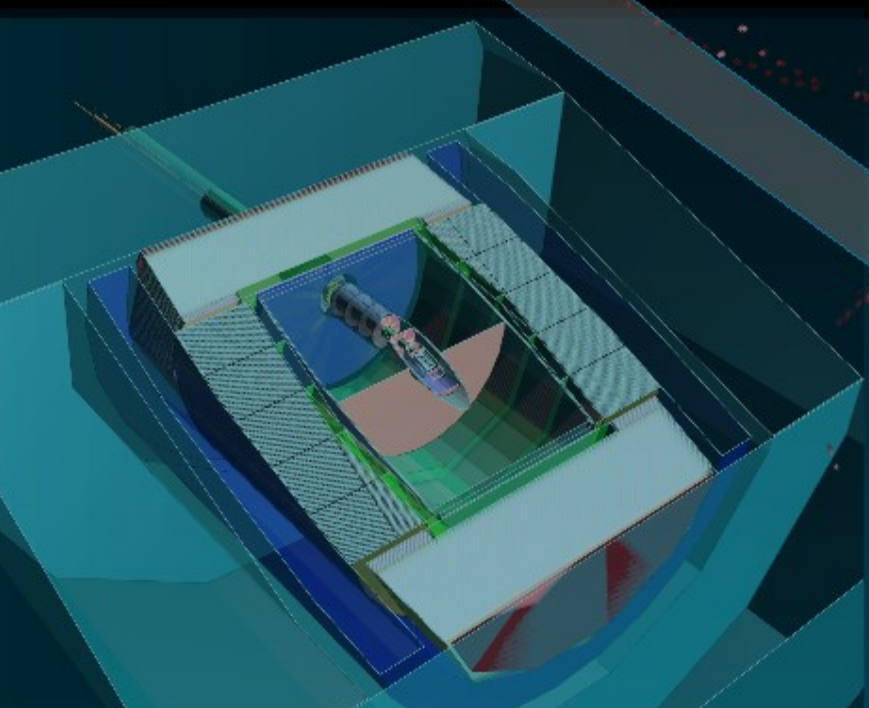
saclay

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Les deux infinis



Accepter for particle flow analysis  
Accepter for particle flow analysis  
Accepter for particle flow analysis