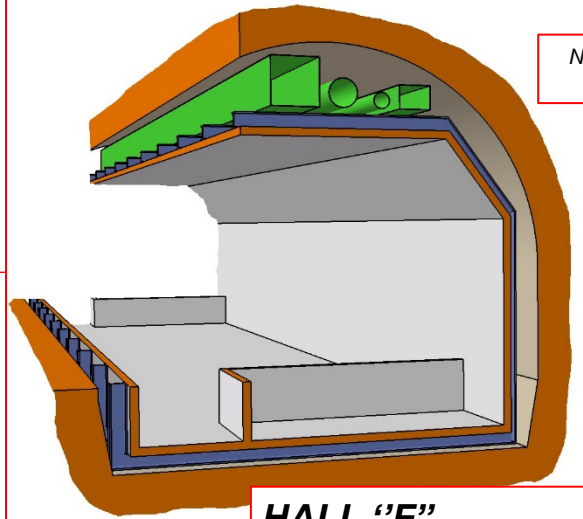


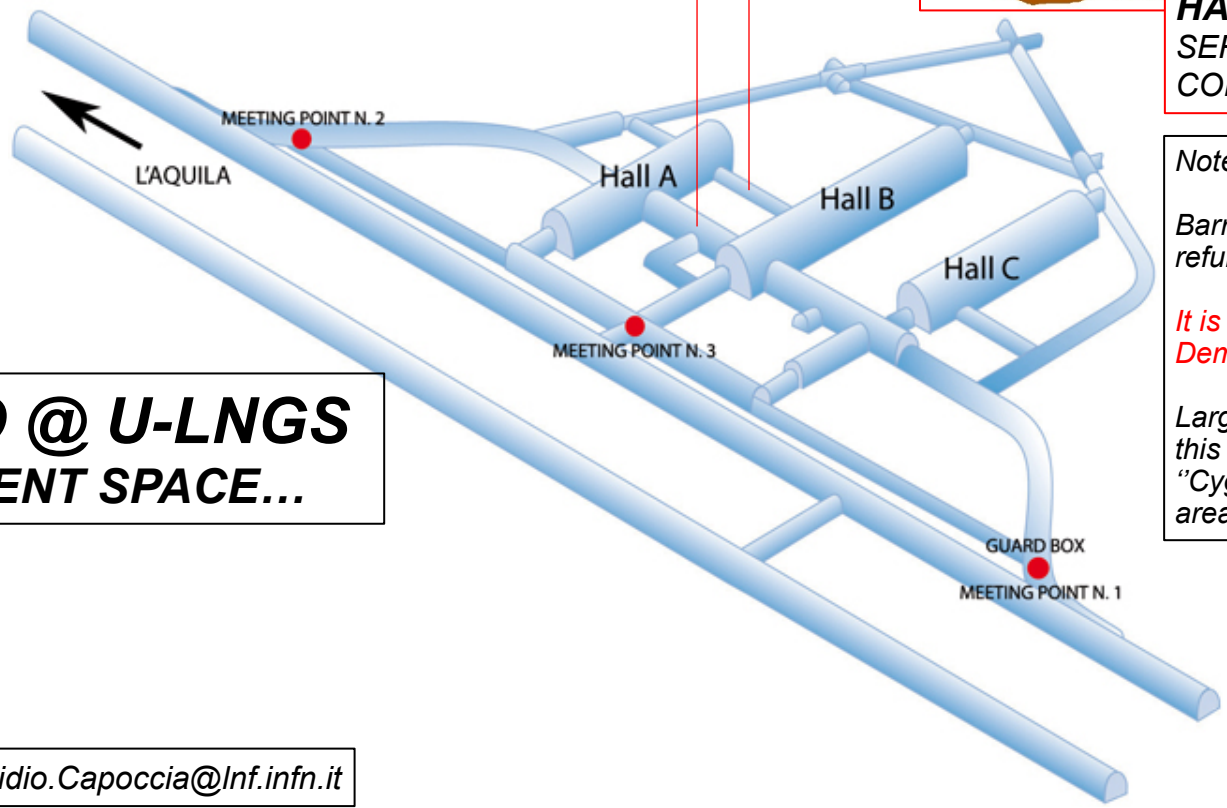
Ex DAMA + VIP Exp. BUILDING
REFURBISHING STUDY
For VIP + CYGNO Exp. ON GOING

VIP & CYGNO BARRACK
(TRUCK TUNNEL)



NEW AREA UNDER
DISCUSSION...

HALL "F"
SERVICE TUNNEL
CONN. HALL "A" & "B"



CYGNO @ U-LNGS
EXPERIMENT SPACE...

Note:

Barrack space "seems" enough (after refurbishing) just for Lime setup.

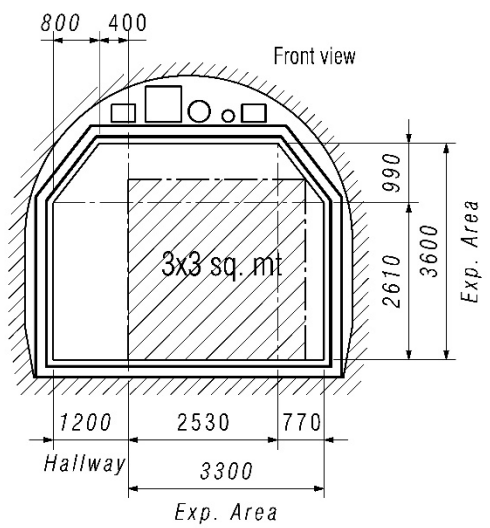
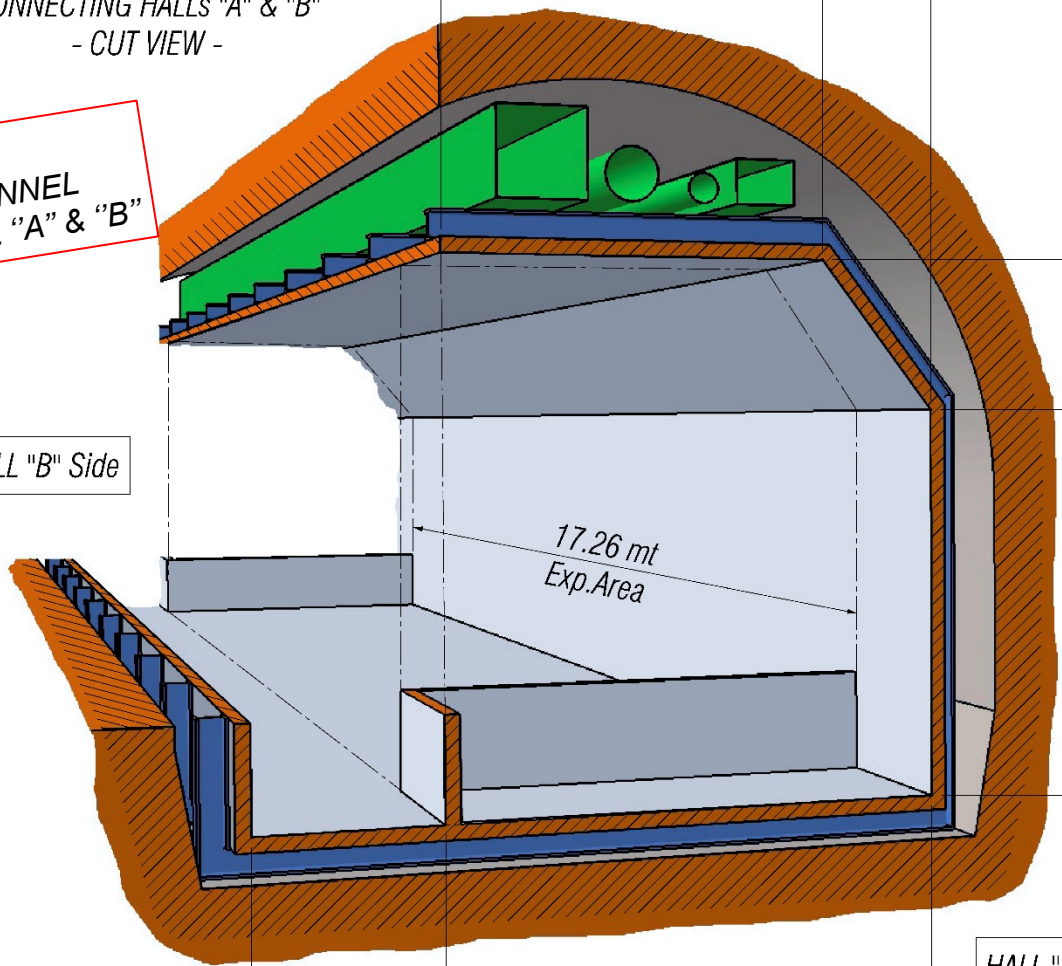
It is absolutely not enough for "Cygno Demonstrator" Setup.

Larger area is under discussion (Hall-F), this is a preliminary study to draw a "Cygno Demonstrator" Setup in this new area...



CYGNO EXP. AREA: HALL "F"
 LOCATED IN THE (SERVICES) TUNNEL
 CONNECTING HALLS "A" & "B"
 - CUT VIEW -

HALL "F"
 SERVICE TUNNEL
 CONN. HALL "A" & "B"



SQUARE AREA 3x3m WE SHOULD CONSIDER AS A WORKING EXP. AREA ...

HALL "B" Side

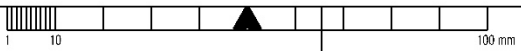
HALL "A" Side

1.2 mt Hallway
 3.33 mt Exp. Area
 (4.53 mt)

2.61 mt
 3.60 mt
 Exp. Area

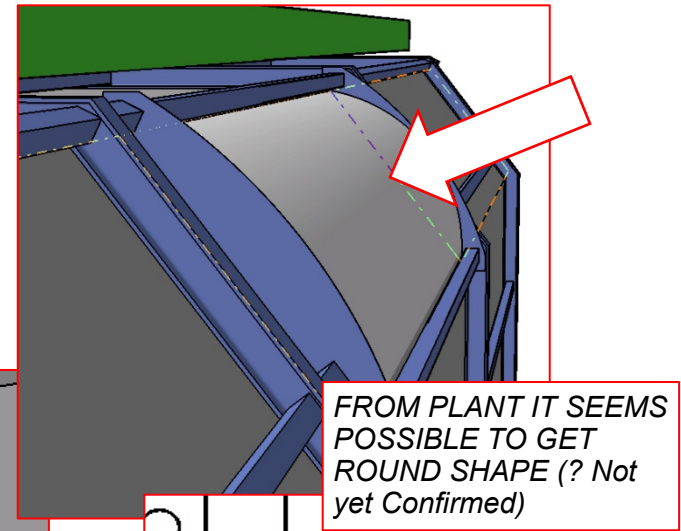


Cesidio.Capoccia@Lnf.Infn.It
 27.04.2020



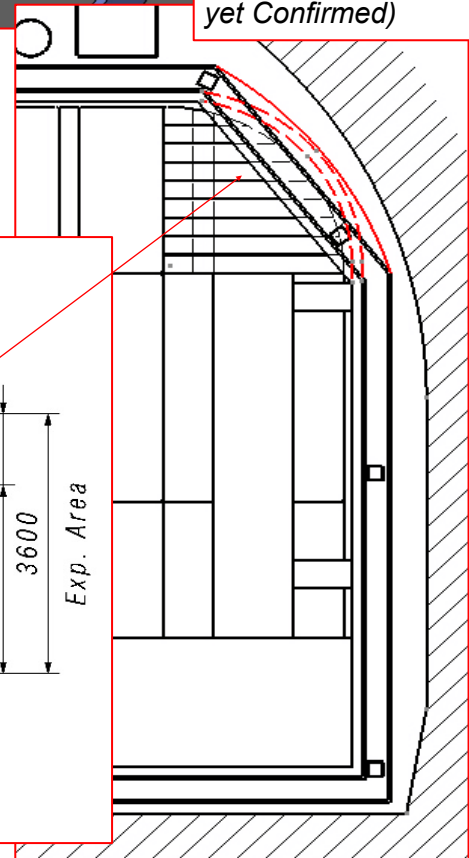
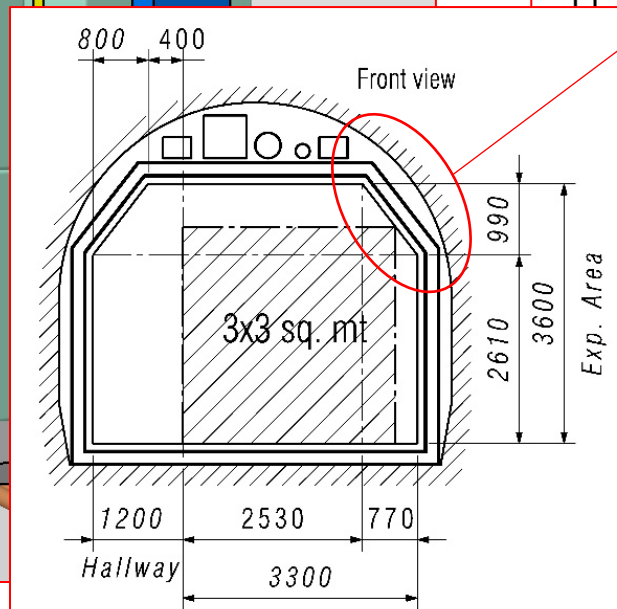
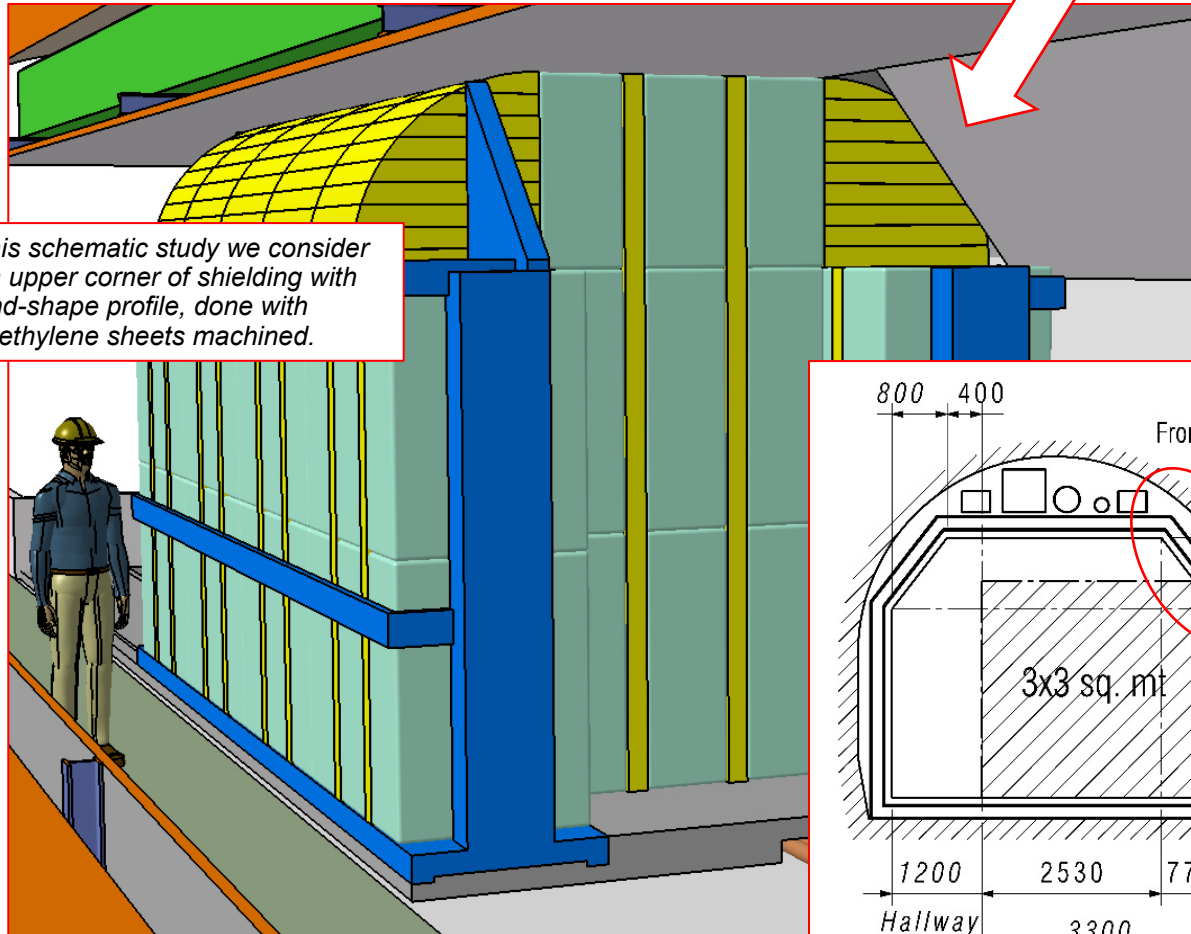
...SPACE OPTIMIZATION

IN ORDER TO GAIN SPACE WE HAVE TO VERIFY IF IT'S POSSIBLE TO CHANGE WALL-PANEL CORNER TO GET A ROUND SHAPE...



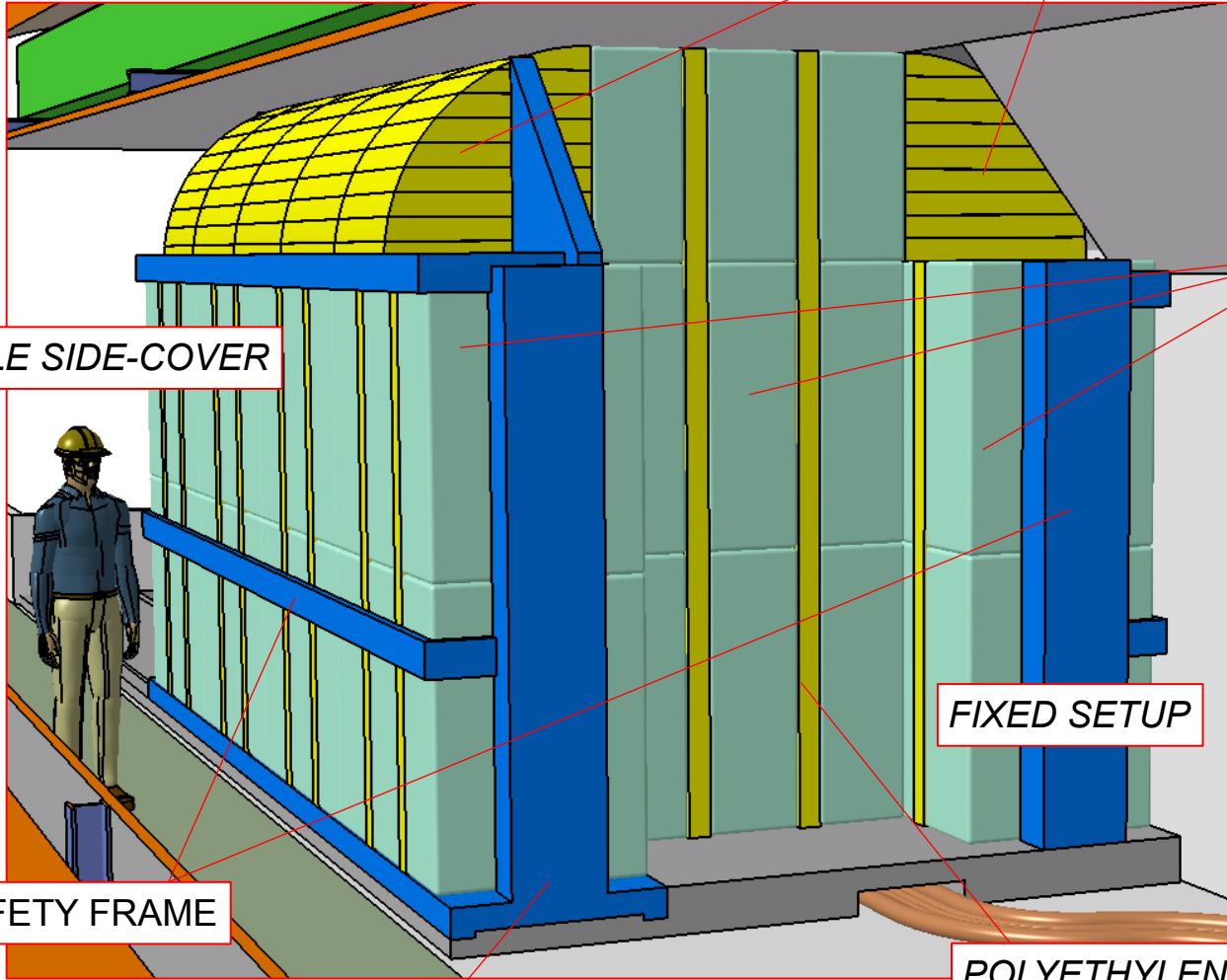
FROM PLANT IT SEEMS POSSIBLE TO GET ROUND SHAPE (? Not yet Confirmed)

In this schematic study we consider both upper corner of shielding with round-shape profile, done with polyethylene sheets machined.



WATER-SHIELDING SETUP

POLYETHYLENE SHEETS



MOBILE SIDE-COVER

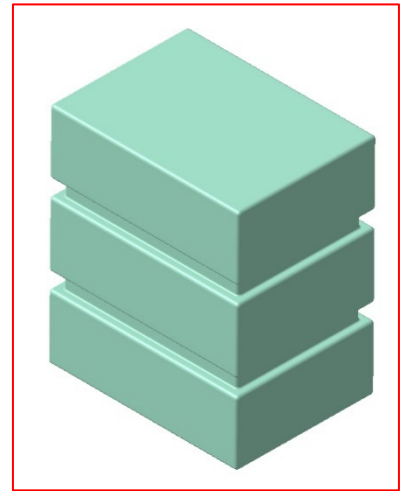
METAL SAFETY FRAME

TROLLEY STRUCTURE

FIXED SETUP

POLYETHYLENE FRAME

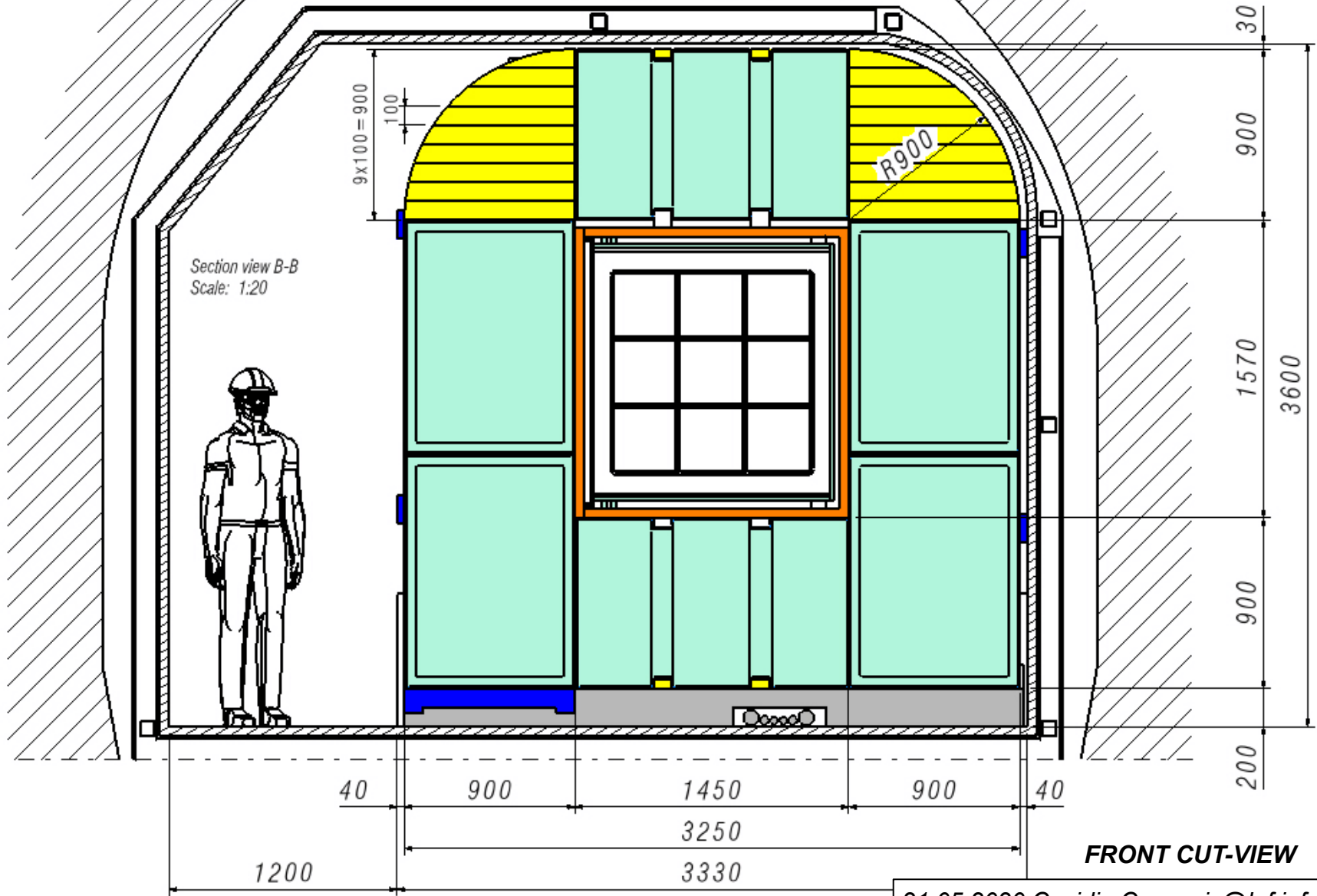
(CUSTOM) WATER TANKs



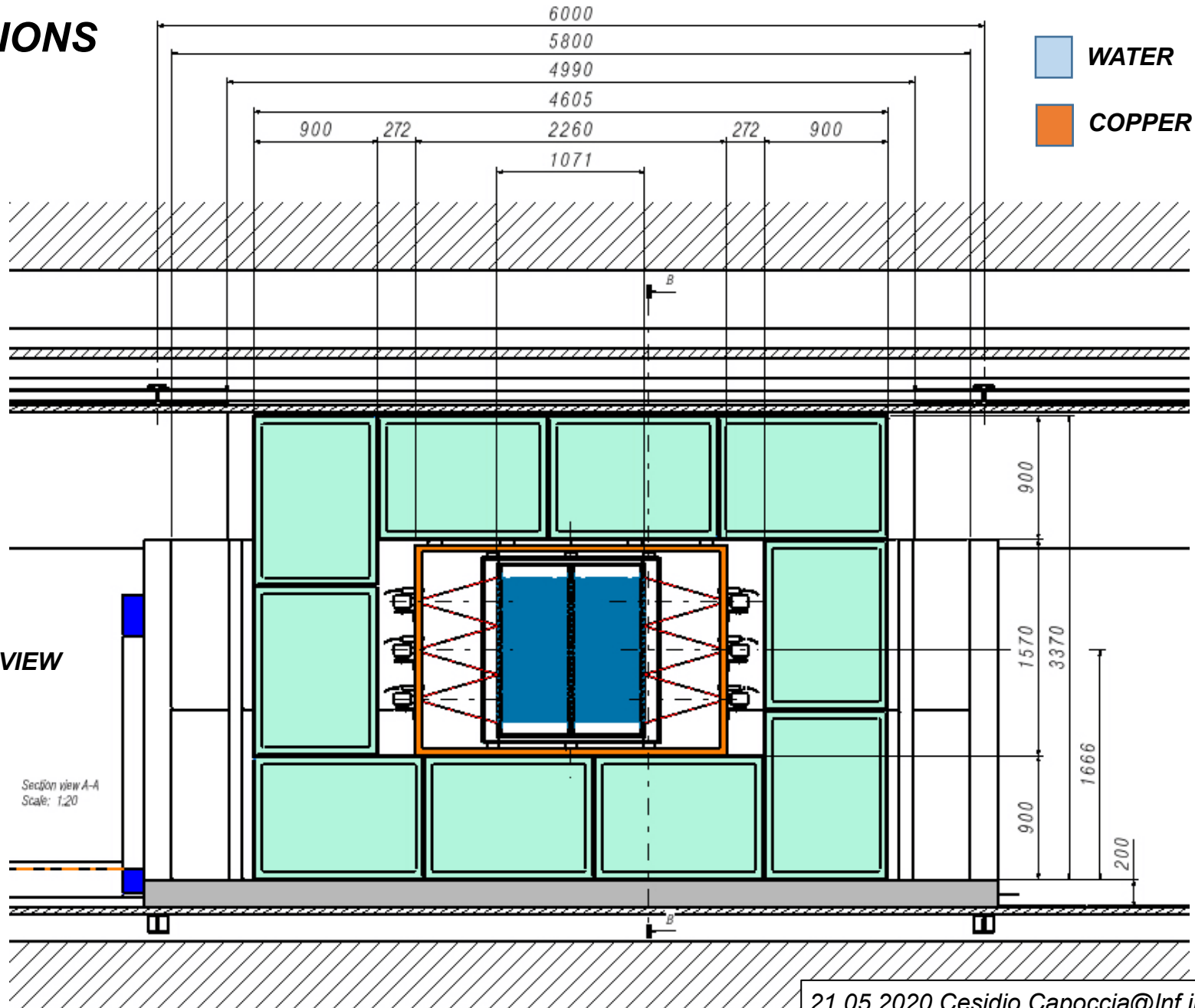
26 Pcs

DIMENSIONS

-  POLYETHYLENE
-  WATER
-  COPPER



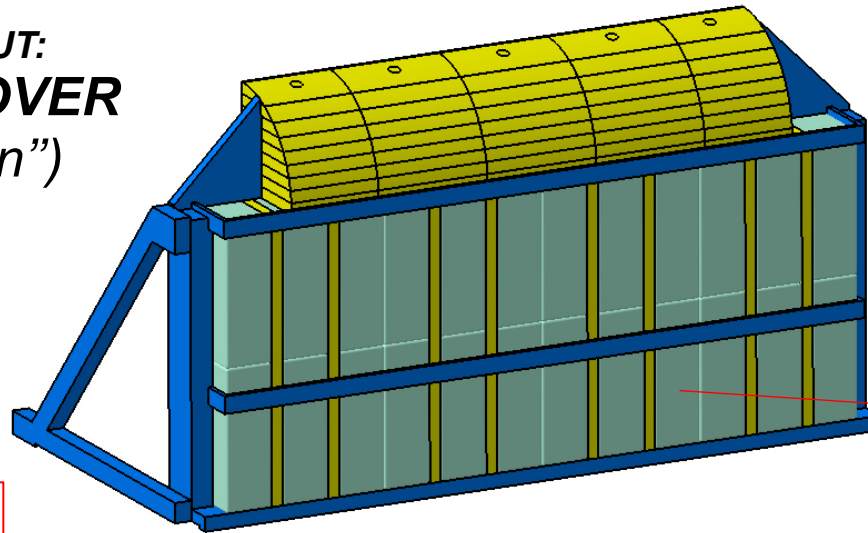
DIMENSIONS



SIDE CUT-VIEW

Section view A-A
Scale: 1:20

**CONSIDERATION ABOUT:
"MOBILE" SIDE-COVER**
(Weight 25 Ton "on")



If can't be possible to make the Side-Cover "mobile" we have to proceed with "un-fill-removing tank" to get access...

POLYETHYLENE SHEETS:
- 45 Pcs / 3.000 Kg (Total)

POLYETHYLENE TANKs:
- Dim: 900x1235x1450 mm
- Volume: 1.600 Lt cad
- 8 Pcs / 13.000 Kg Total

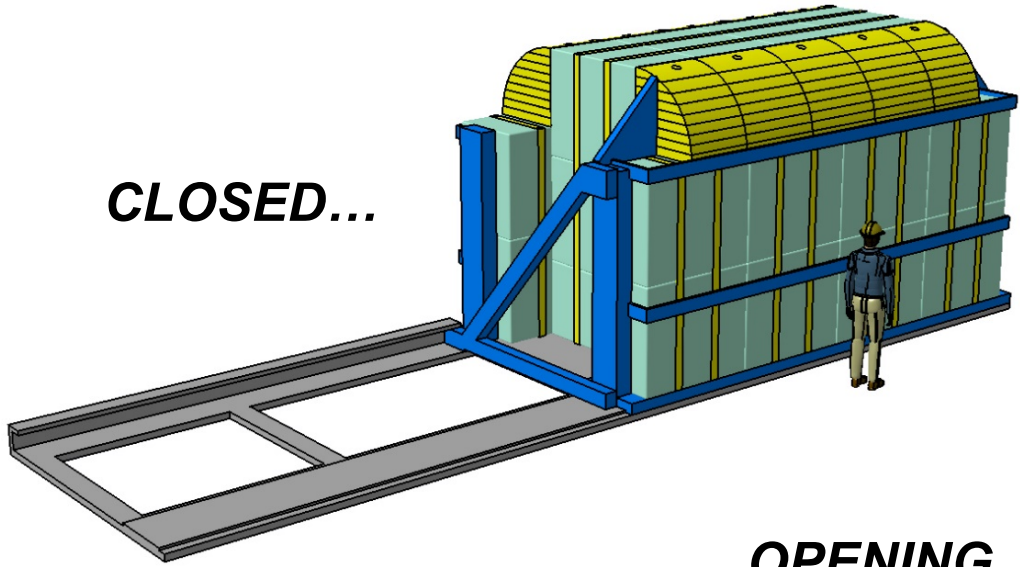
METALLIC FRAME

POLYETHYLENE FRAME
To fix together water tank
(And fill groove between)

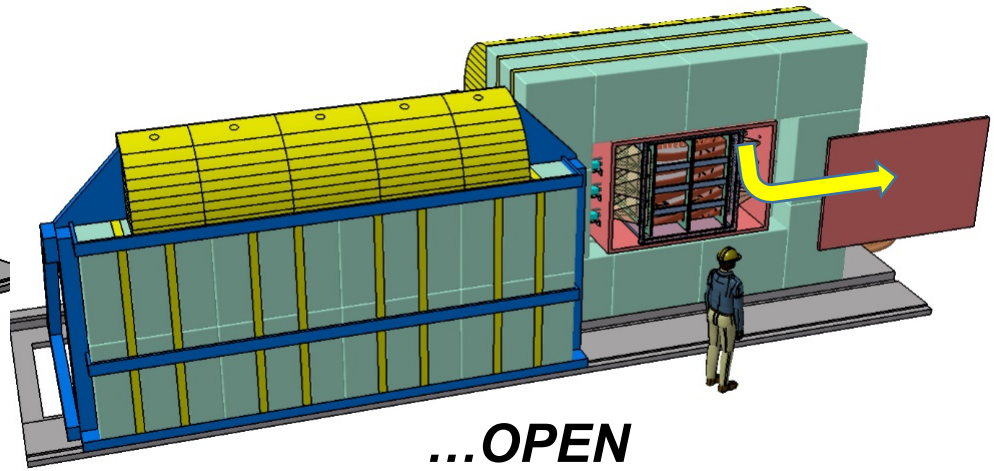
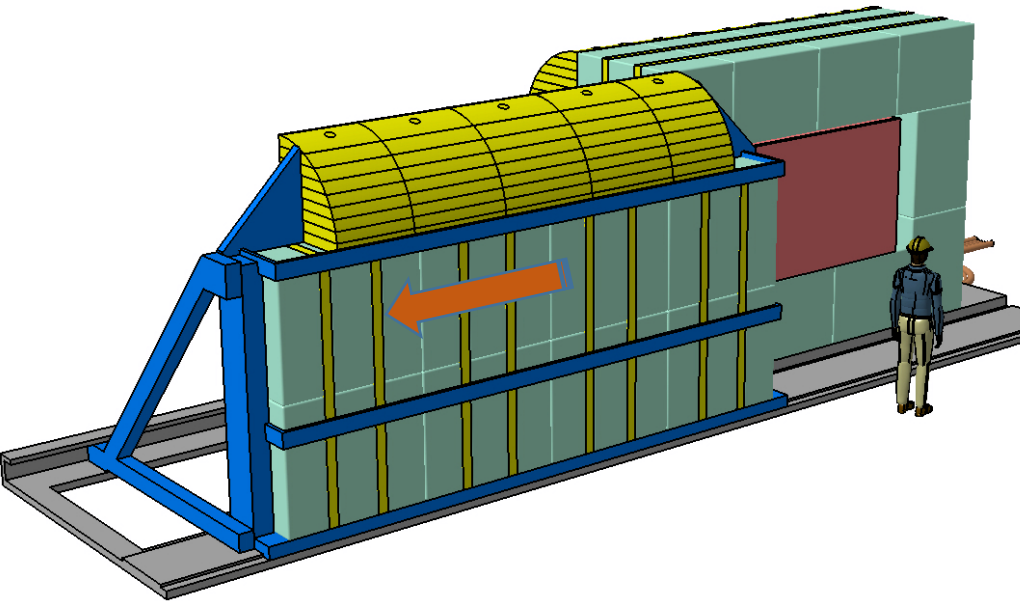
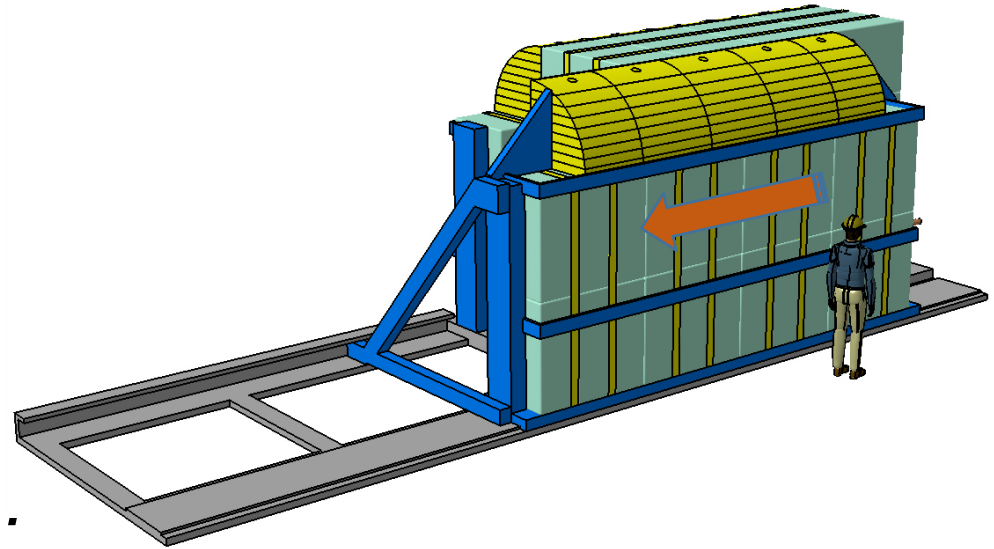
TROLLEY

"MOBILE" SIDE-COVER

CLOSED...

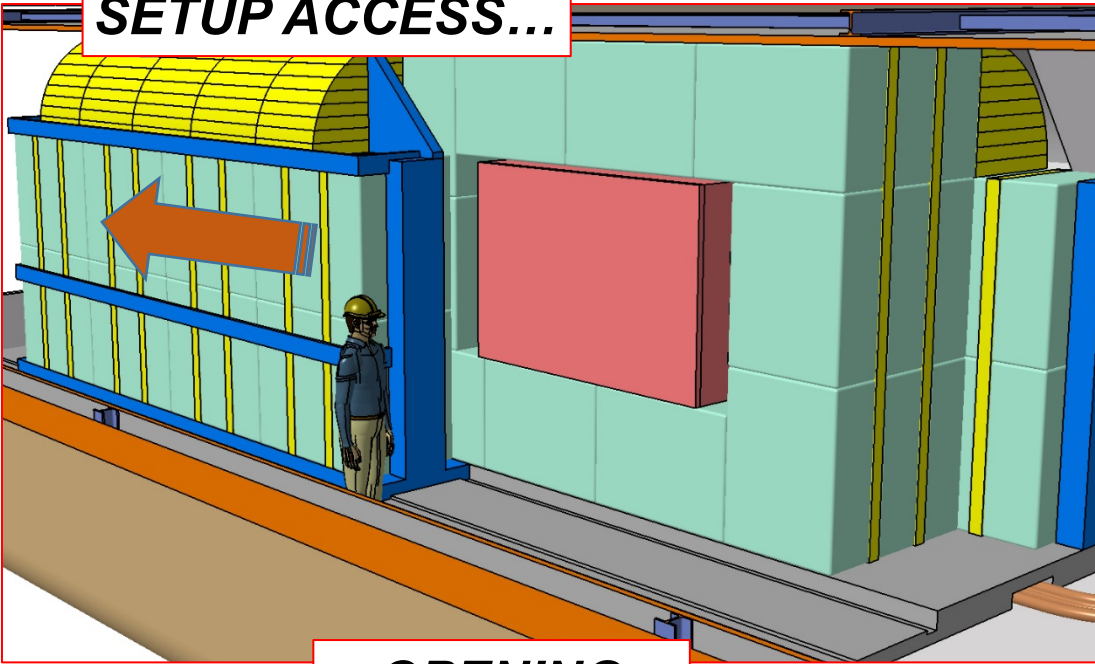


...OPENING...

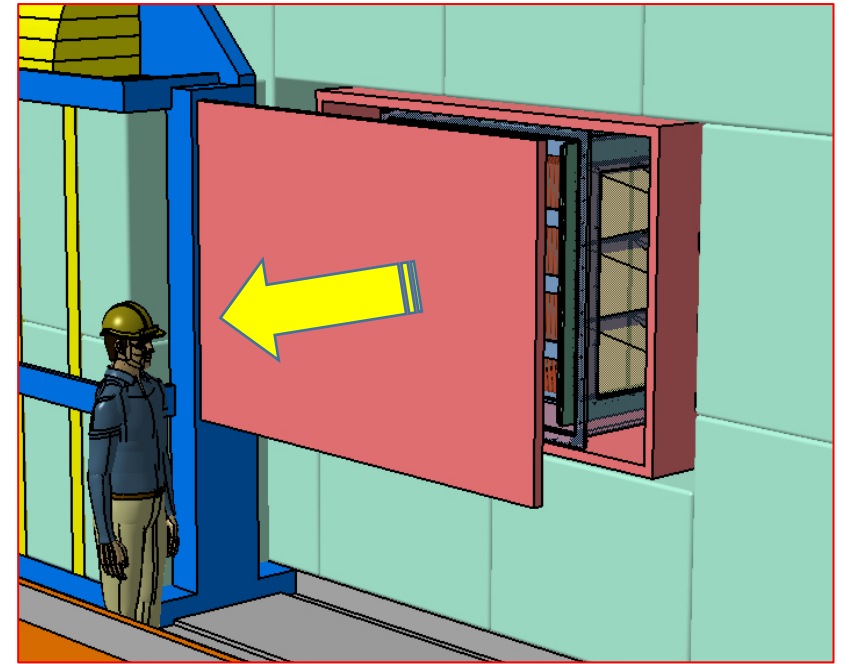


...OPEN

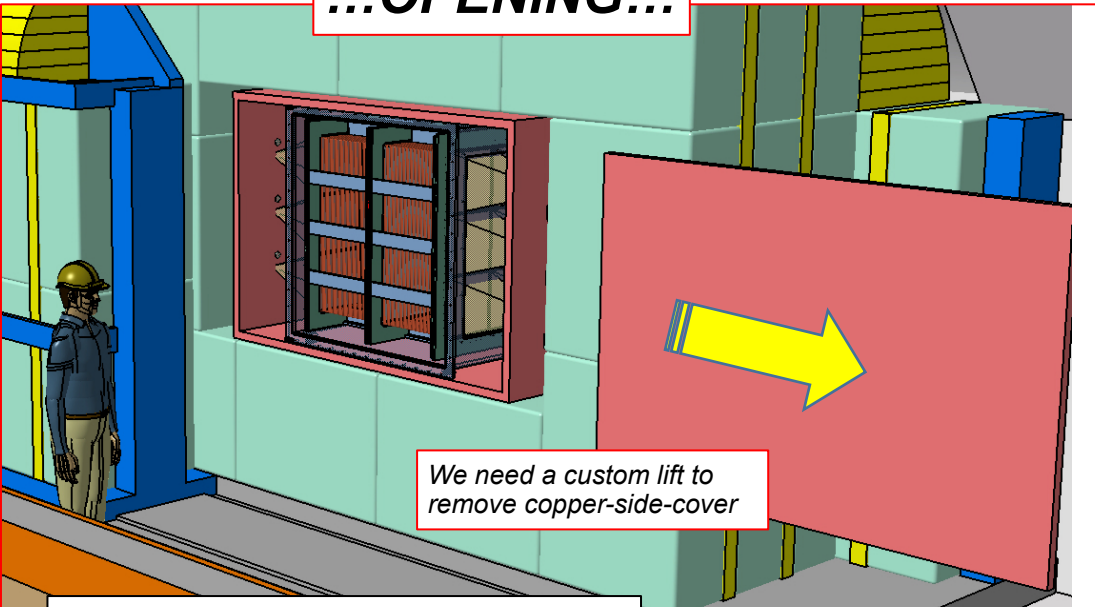
SETUP ACCESS...



... OPENING ...



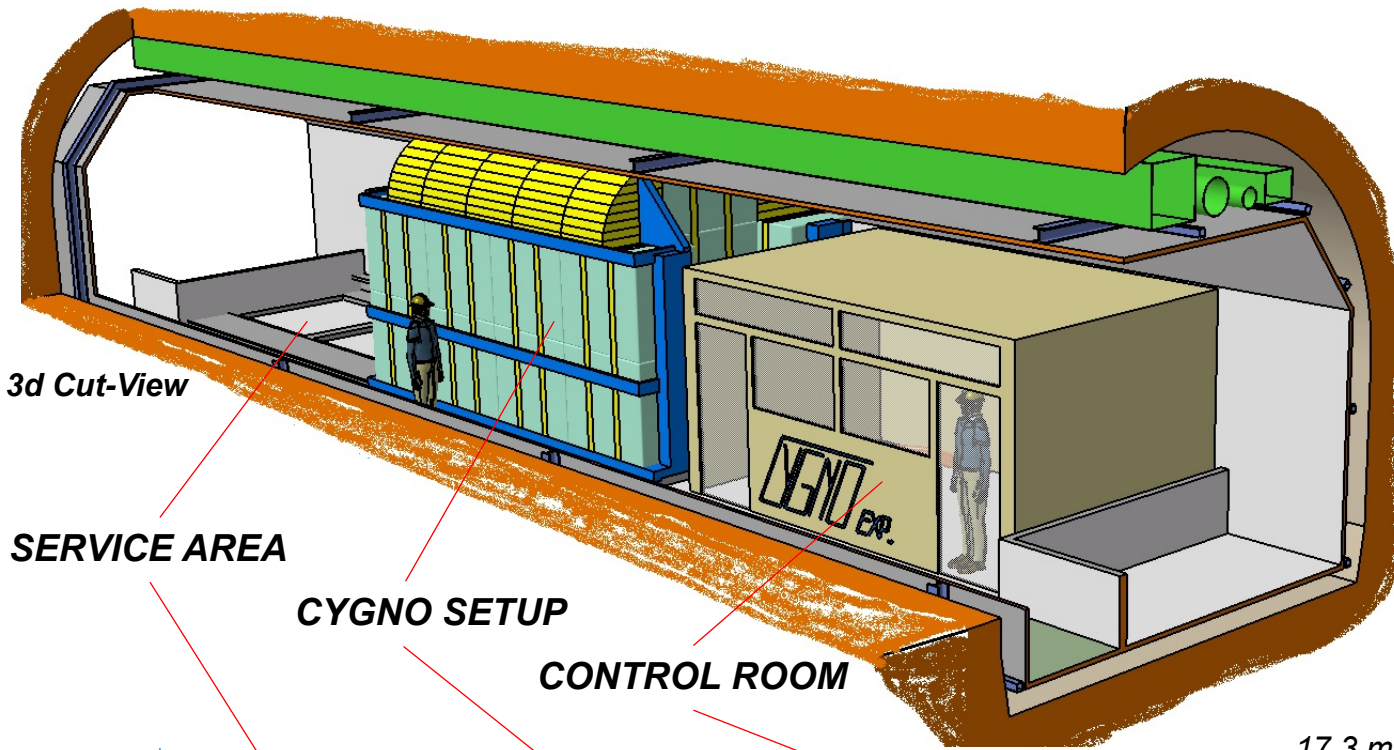
Consider all cameras fixed on a mobile-frame to get them outside for easy access



We need a custom lift to remove copper-side-cover



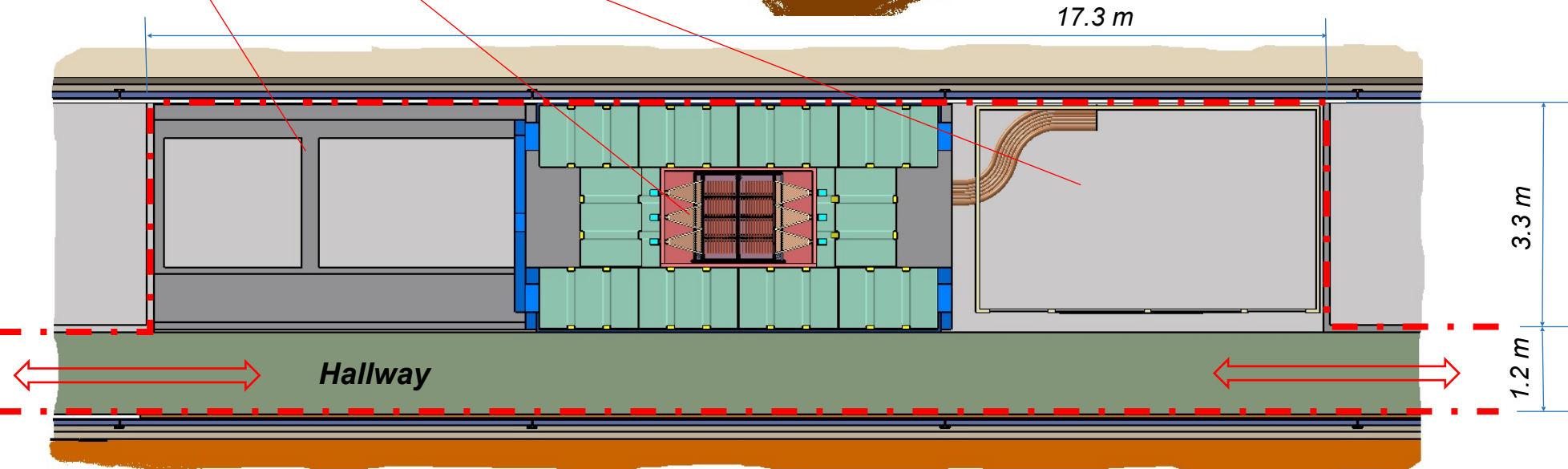
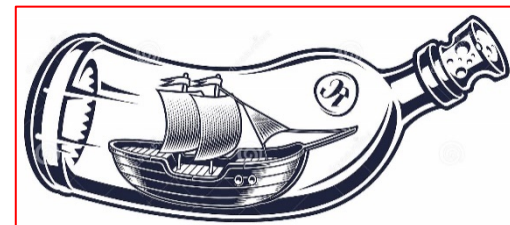
... OPEN



CONCLUSION:

It seems possible to arrange a "Cygno Demonstrator" Setup with a water-shielding thickness close to 1 mt (0.9mt).

Keep in consideration that due to the narrow hallway (1.2mt) we have to work like a: "Make a ship in a bottle"



Top Cut-View