



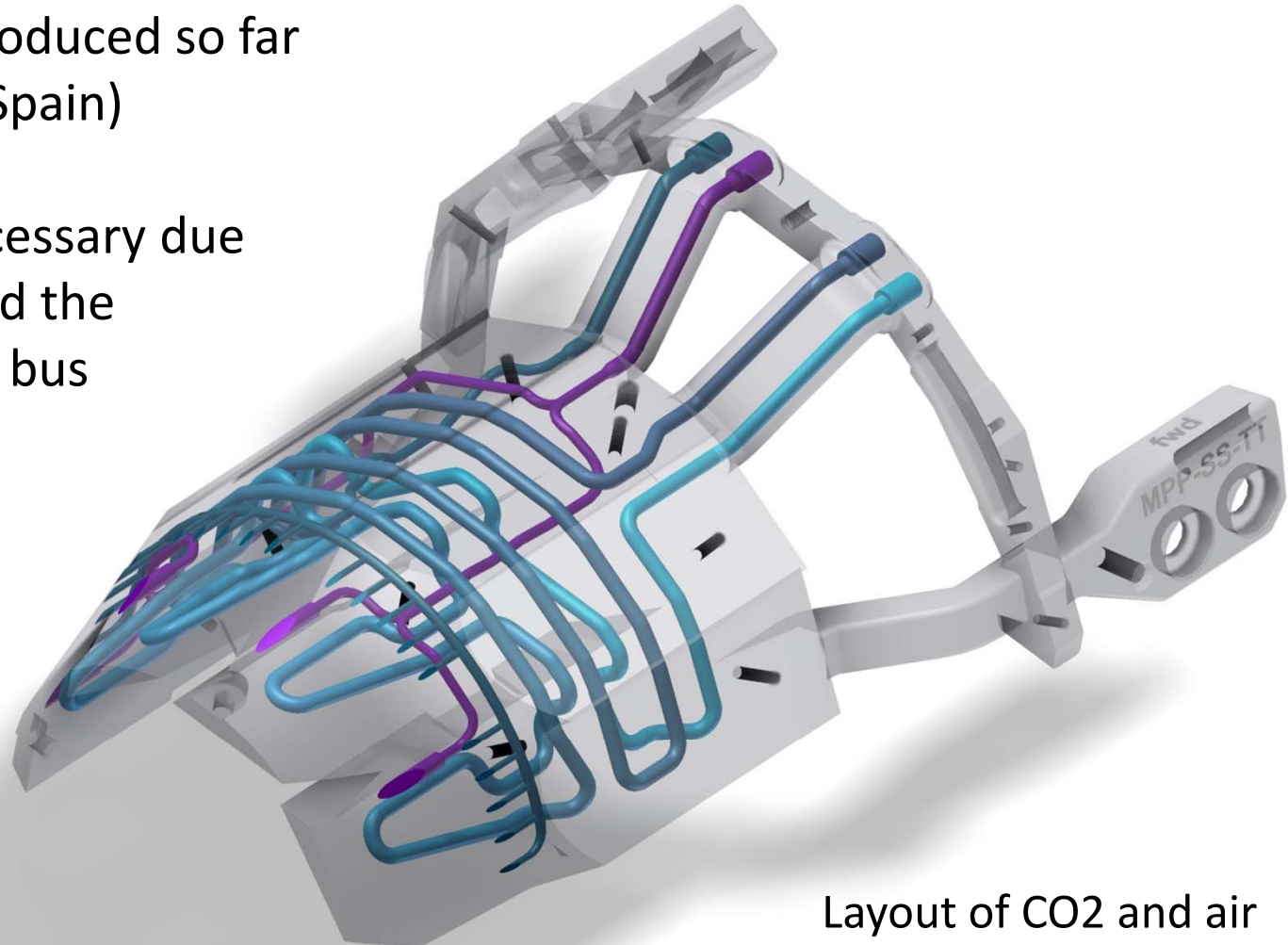
News on PXD Mechanics

- Final Design FWD Support and Cooling Block
- Progress on the Grounding Concept
- Platform for IBelle CO2 Plant + CO2 Routing
- Preparation for the Thermal Mockup at DESY
- [other work, such as EMCM jigs etc. shown in Felix' talk]

(all the work done by Tscharlie Ackermann)

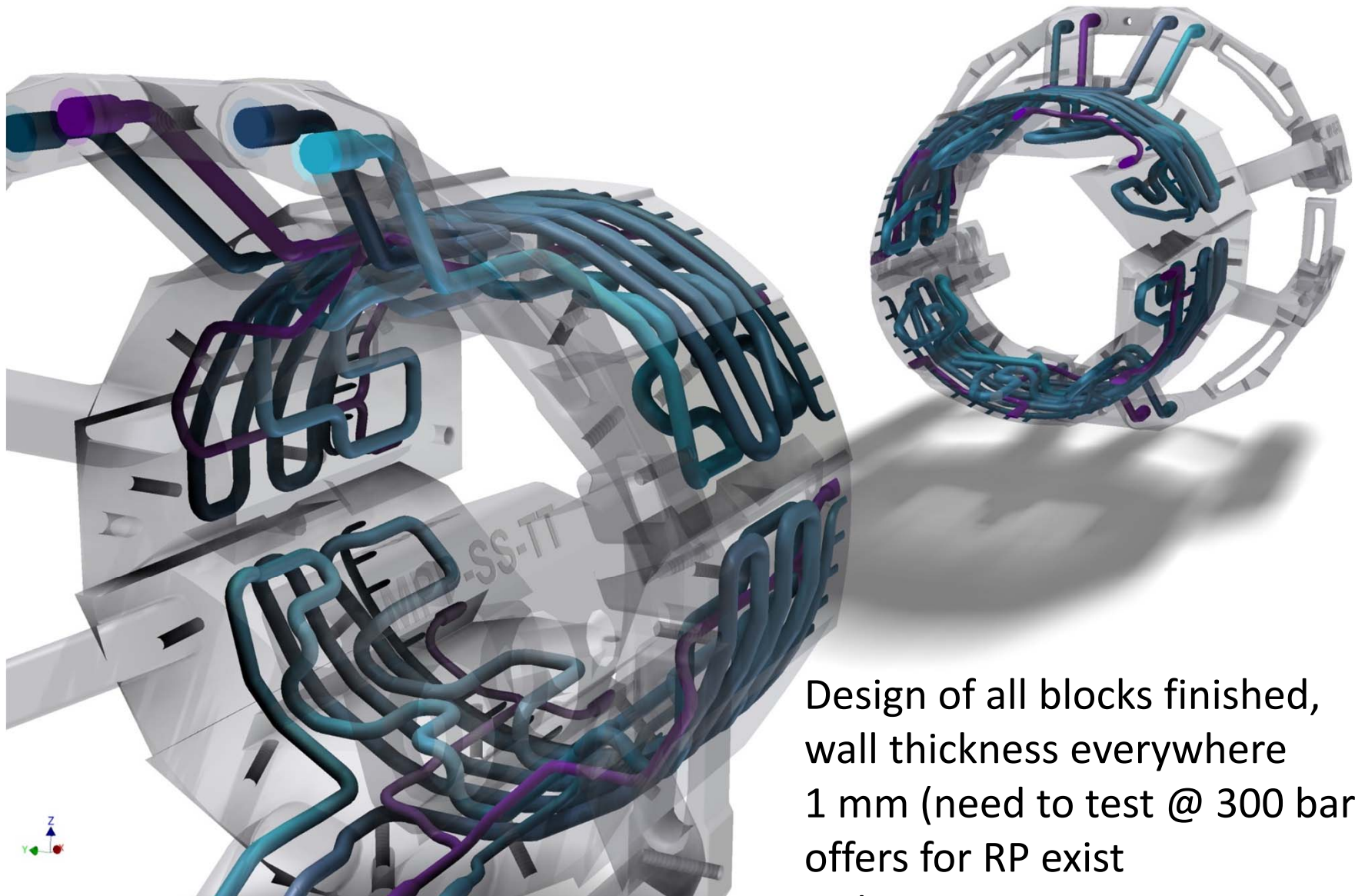
Only BWD SCB produced so far
(in Germany and Spain)

Changes were necessary due
fixation screws and the
additional ground bus



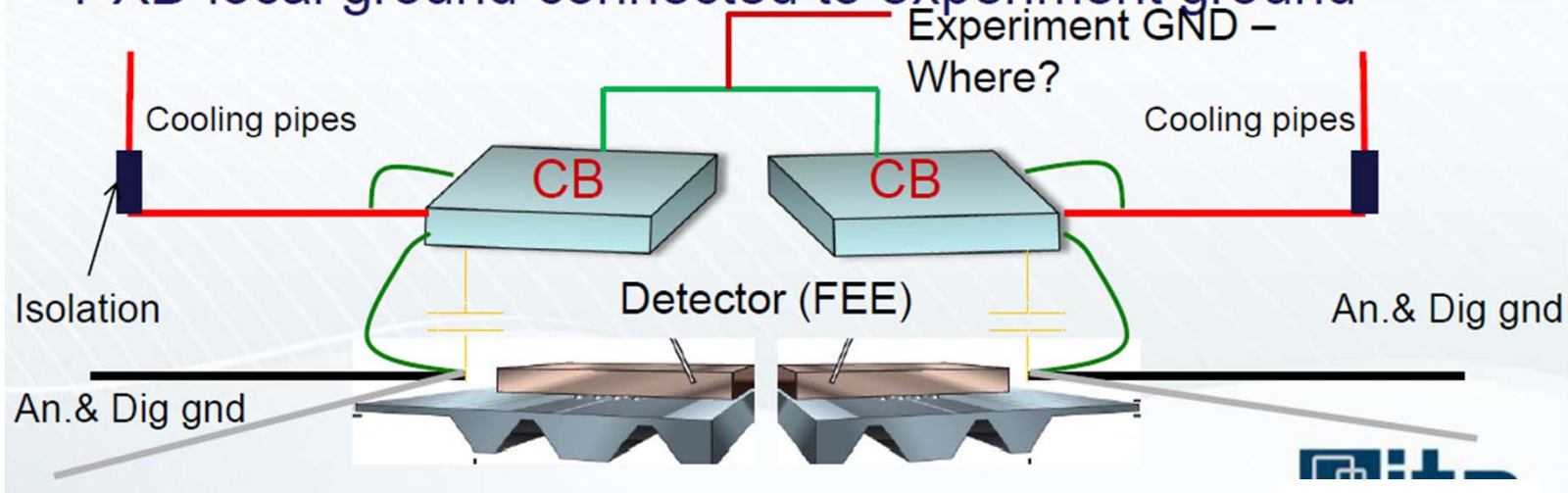
Layout of CO2 and air
lines more difficult
in the FWD SCB





Design of all blocks finished,
wall thickness everywhere
1 mm (need to test @ 300 bar)
offers for RP exist
ordering soon

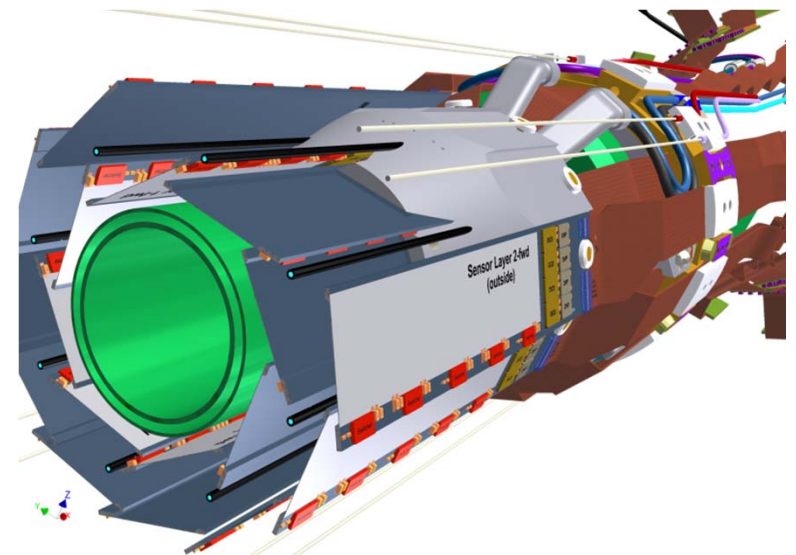
- Cooling blocks (both sides) connected via low impedance
- Cooling pipes grounded
- PXD local ground connected to experiment ground

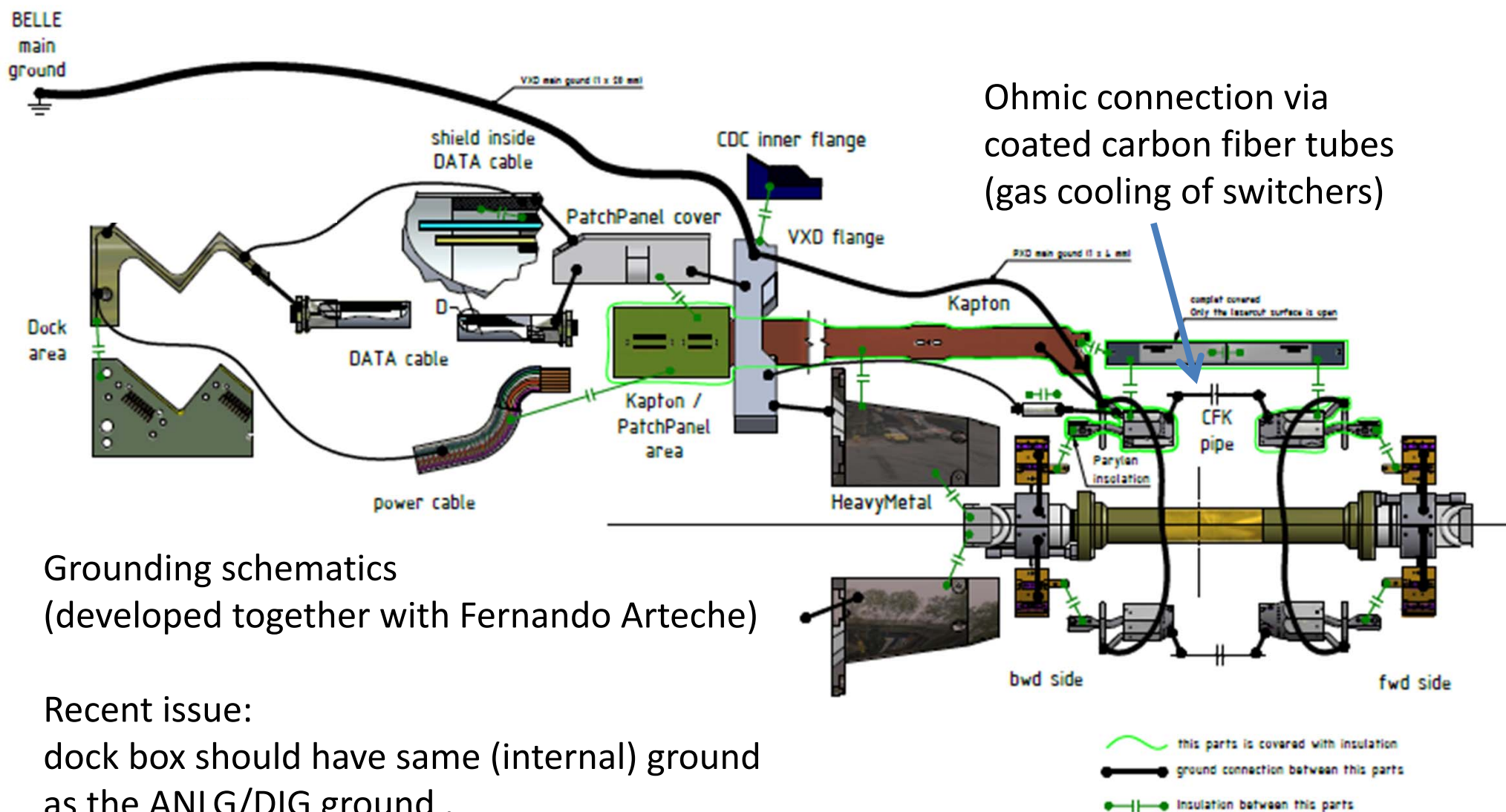


Analog and digital ground connected at the Kapton level

Single point ground for each side connected to respective SCB

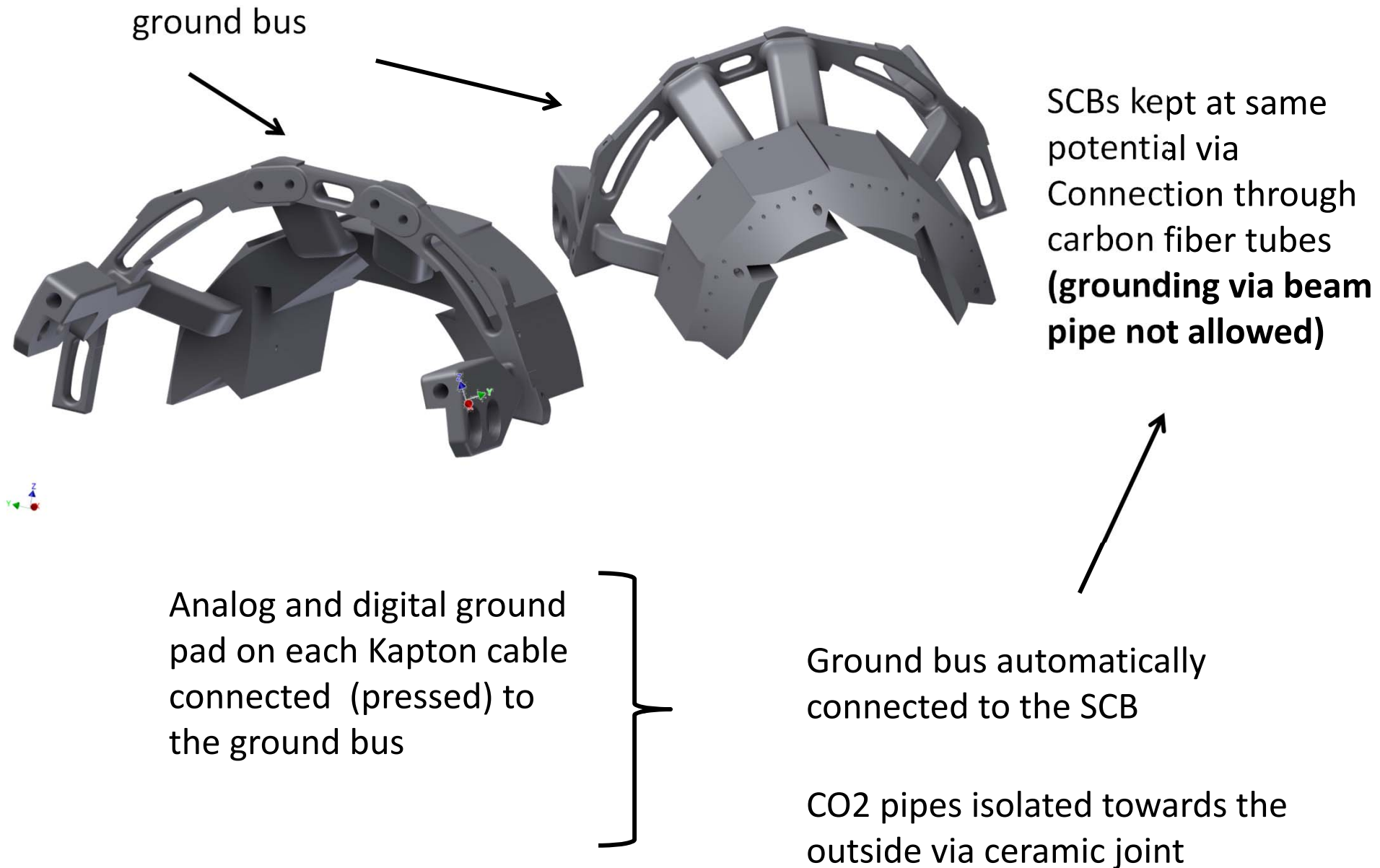
Ohmic connection of SCBs (FWD-BWD) needed

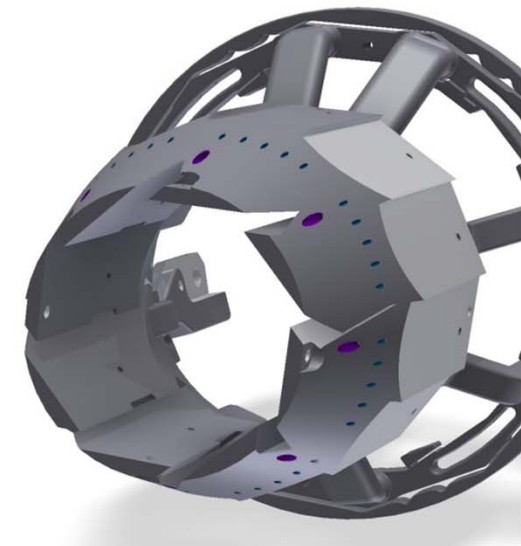
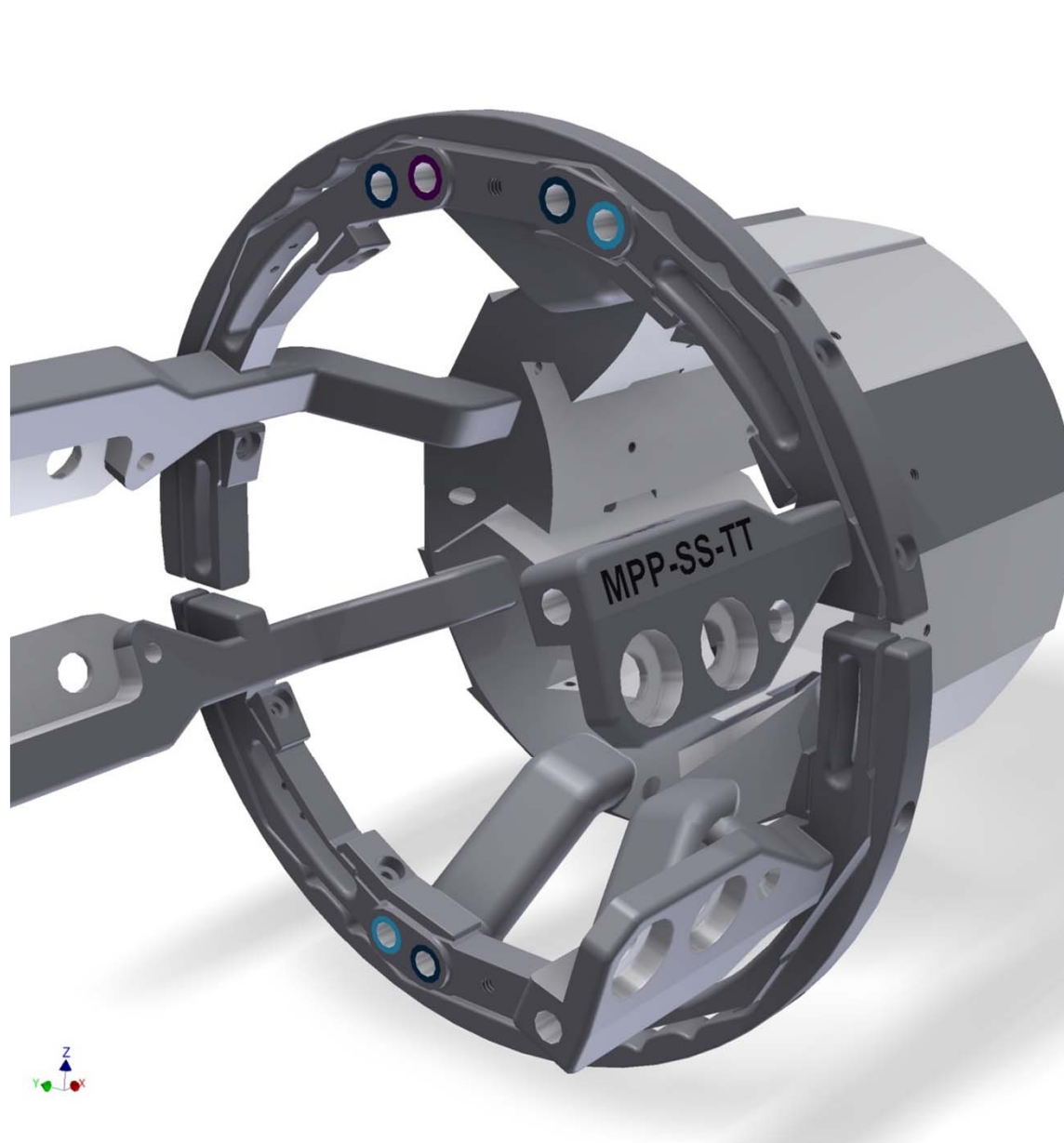




Grounding schematics
(developed together with Fernando Arteche)

Recent issue:
dock box should have same (internal) ground
as the ANLG/DIG ground ,
where to connect the shield of the cables to
the P/S and the RO electronics?

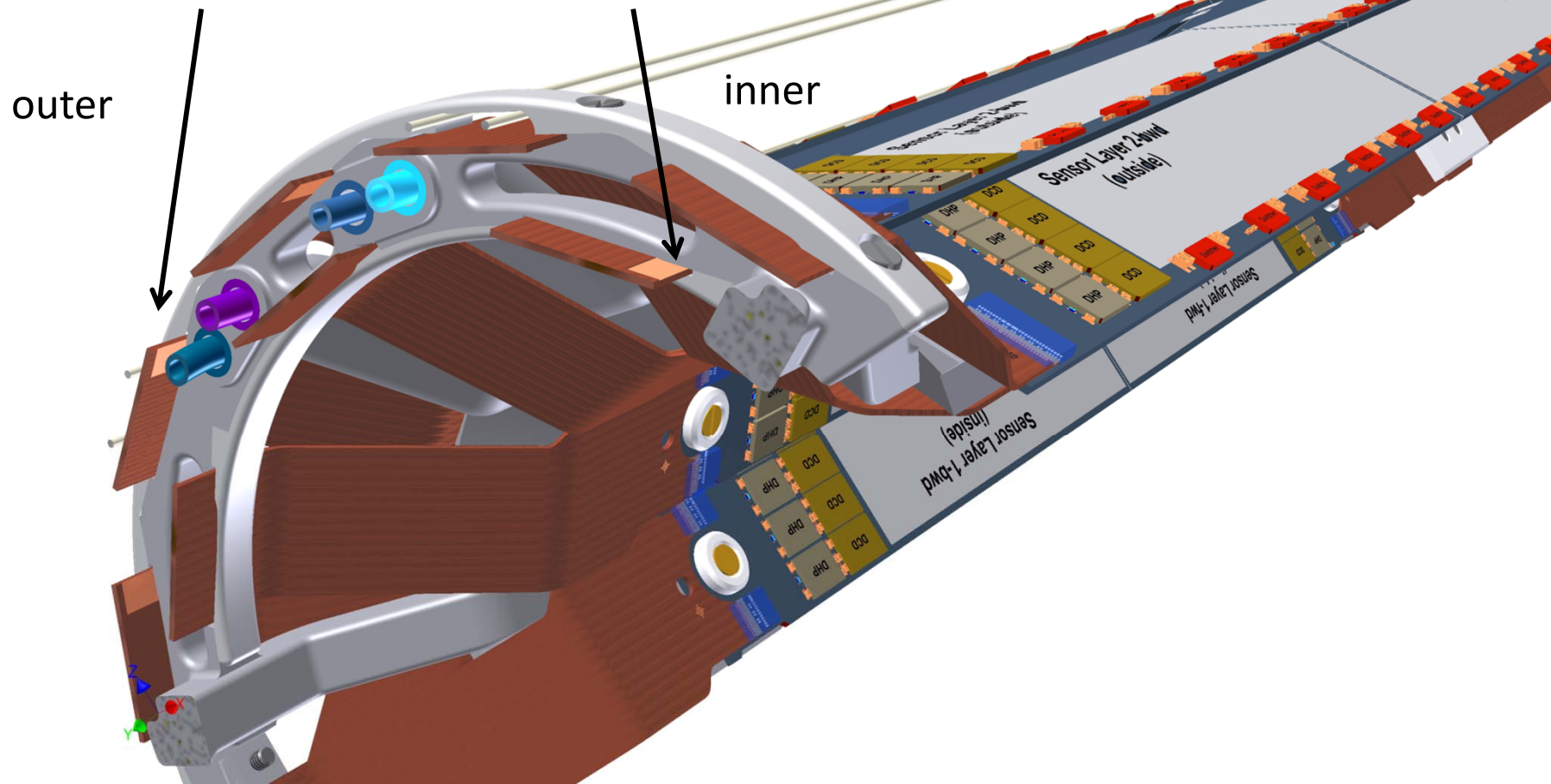




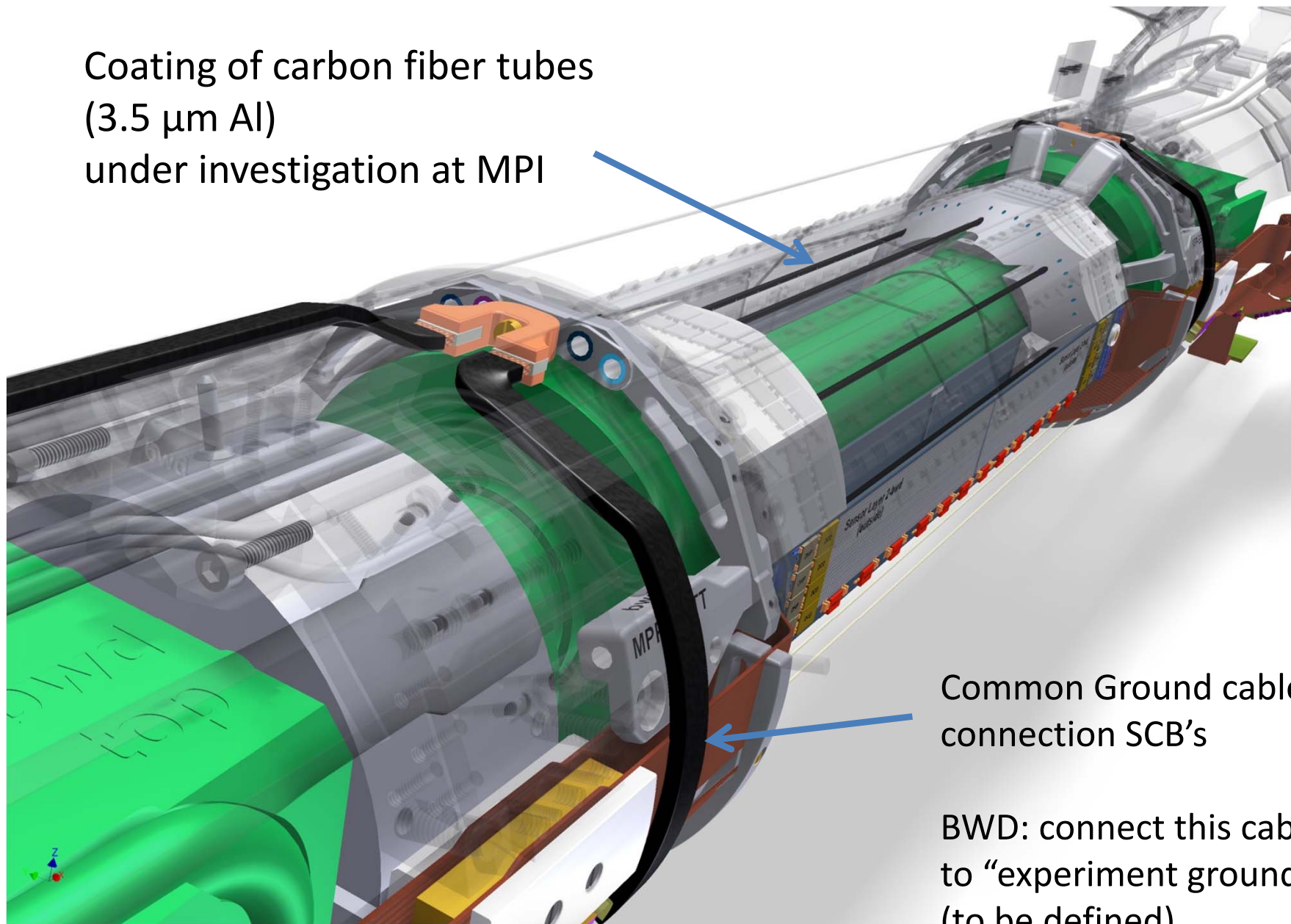
Ground bus with
fixing structures for
the ANLG/DIG ground
on the Kapton cable



opening of ground trace in Kapton cable ,
clamped against ground bus

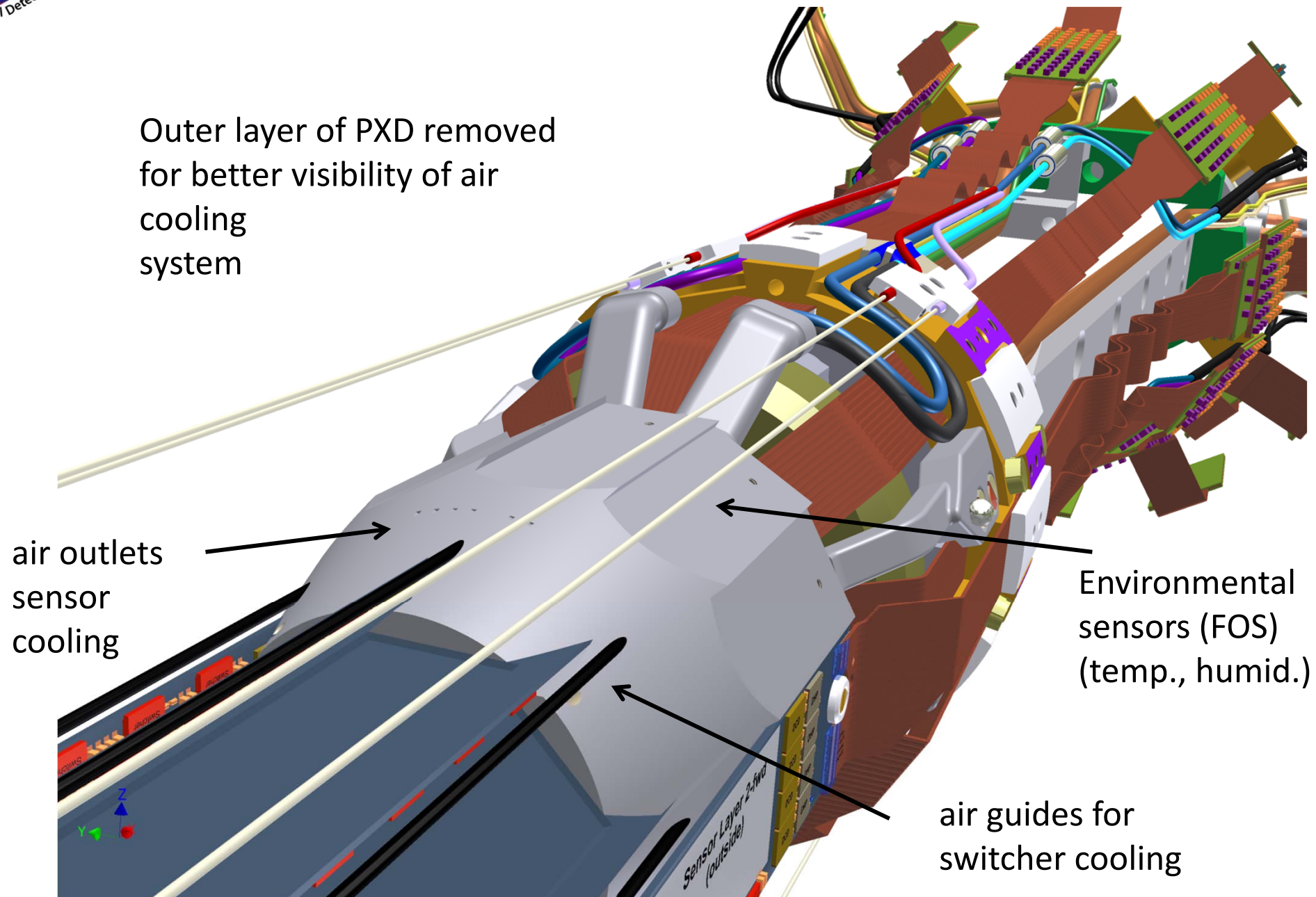


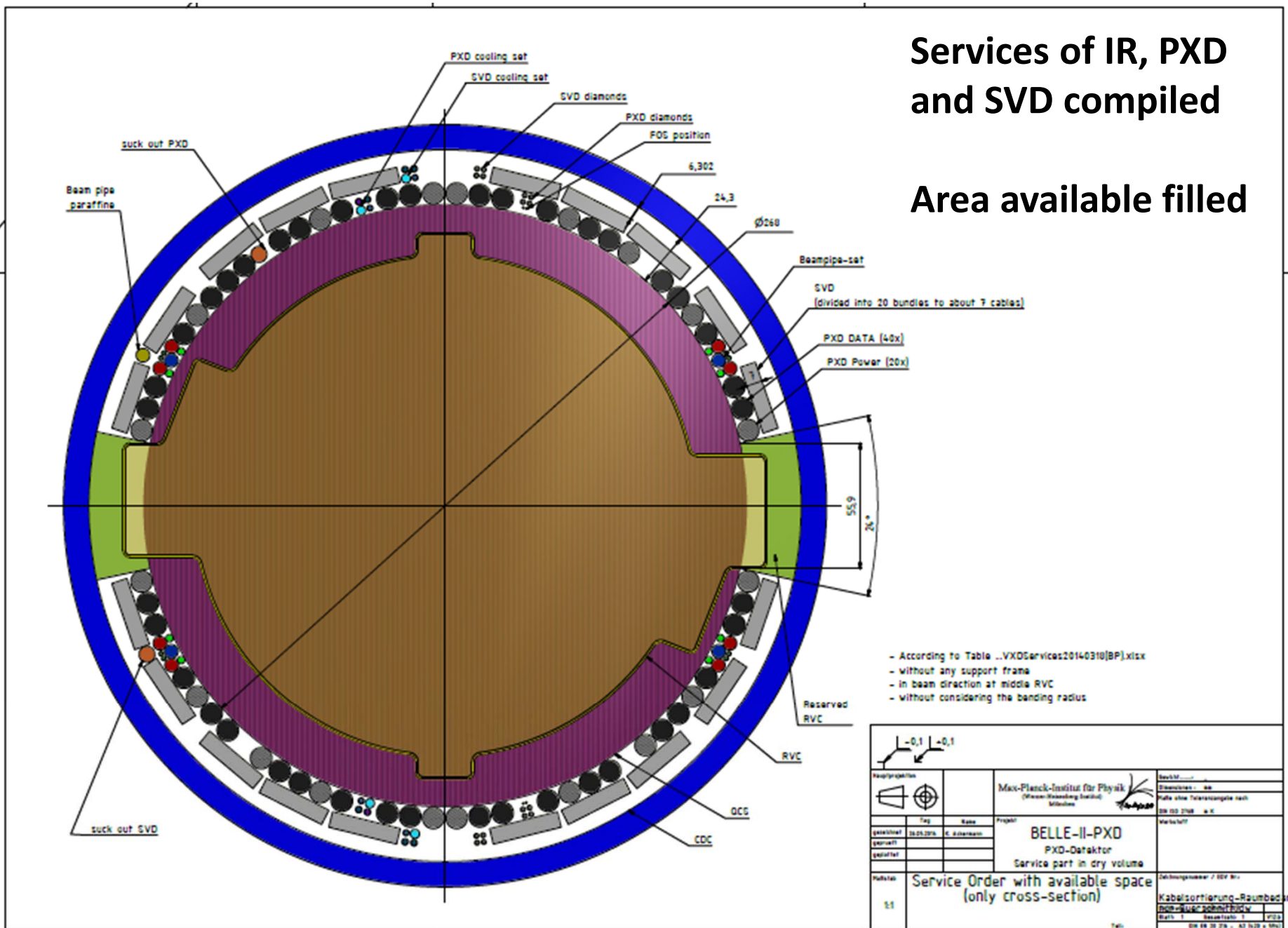
Coating of carbon fiber tubes
($3.5 \mu\text{m Al}$)
under investigation at MPI



Common Ground cable
connection SCB's

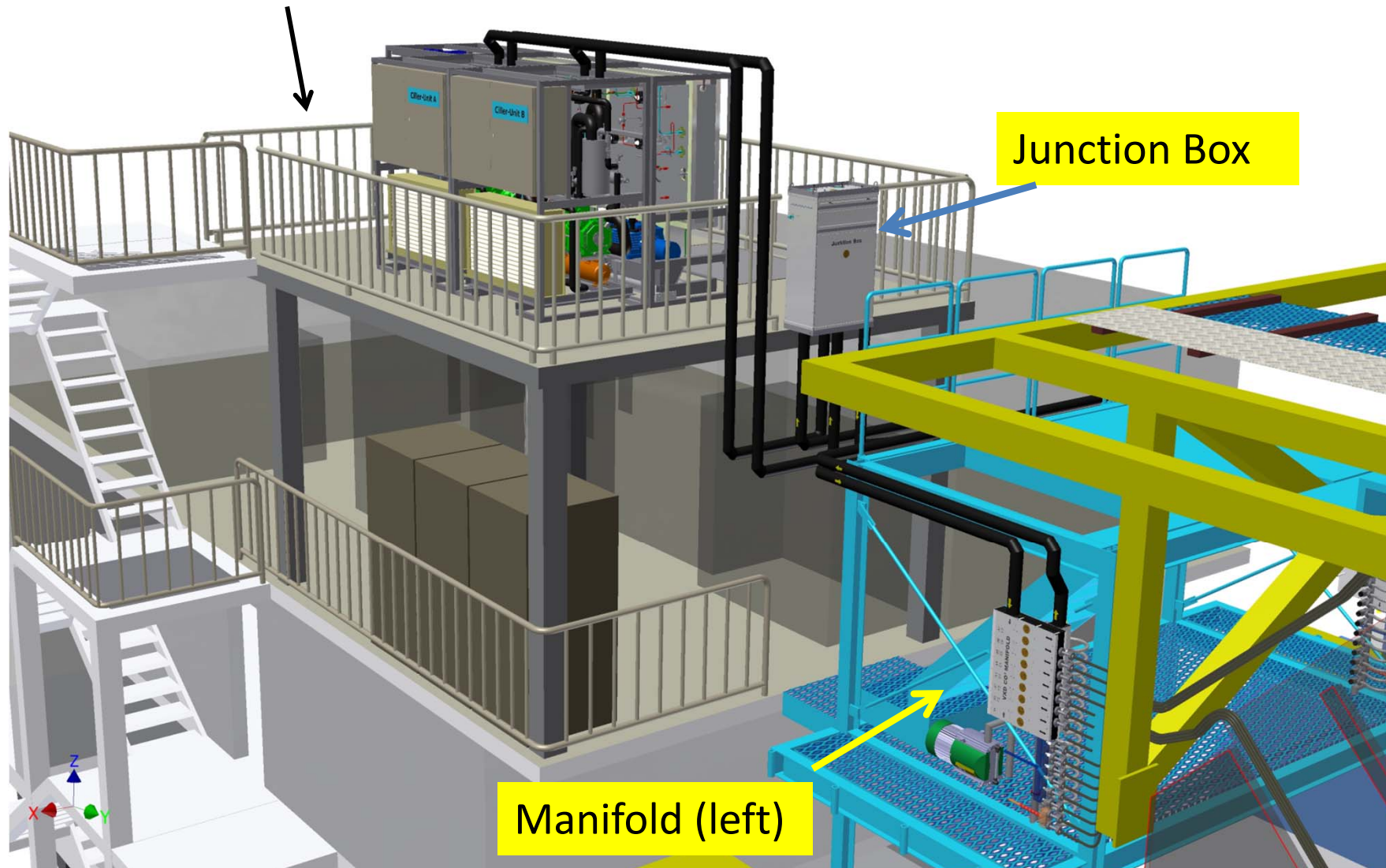
BWD: connect this cable
to "experiment ground"
(to be defined)





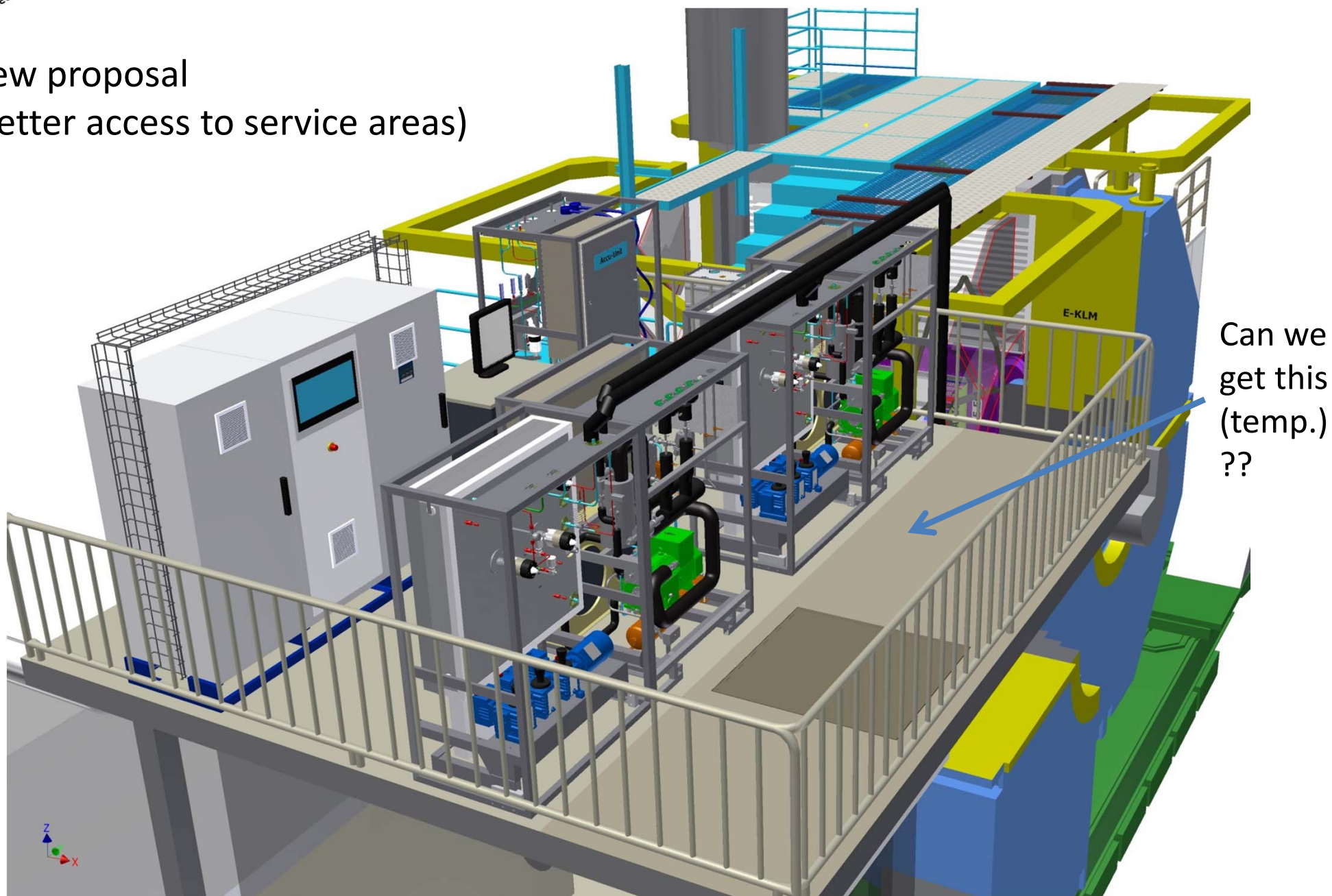
New “terrace” for IBBelle

Out-dated

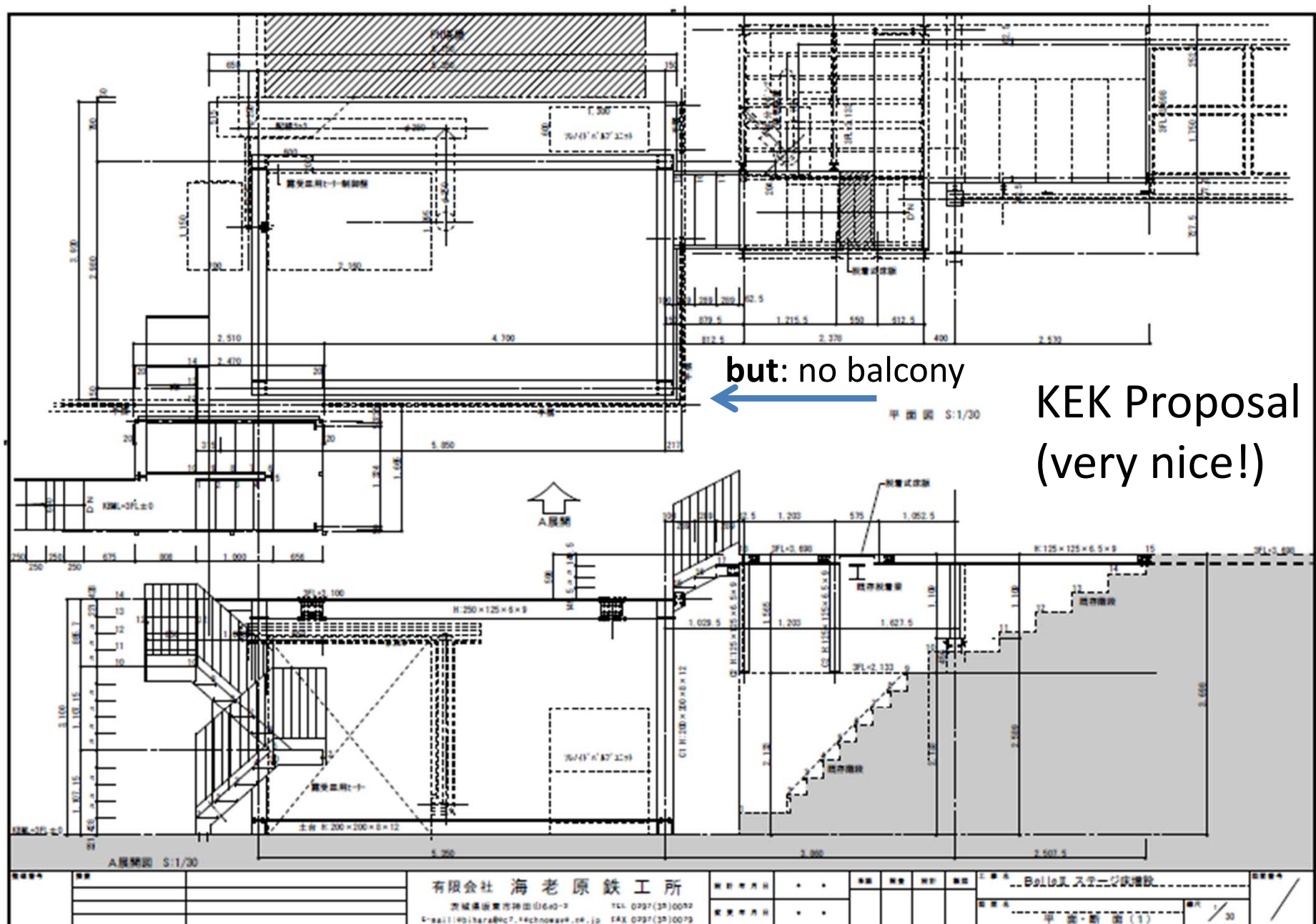


T. Ackermann

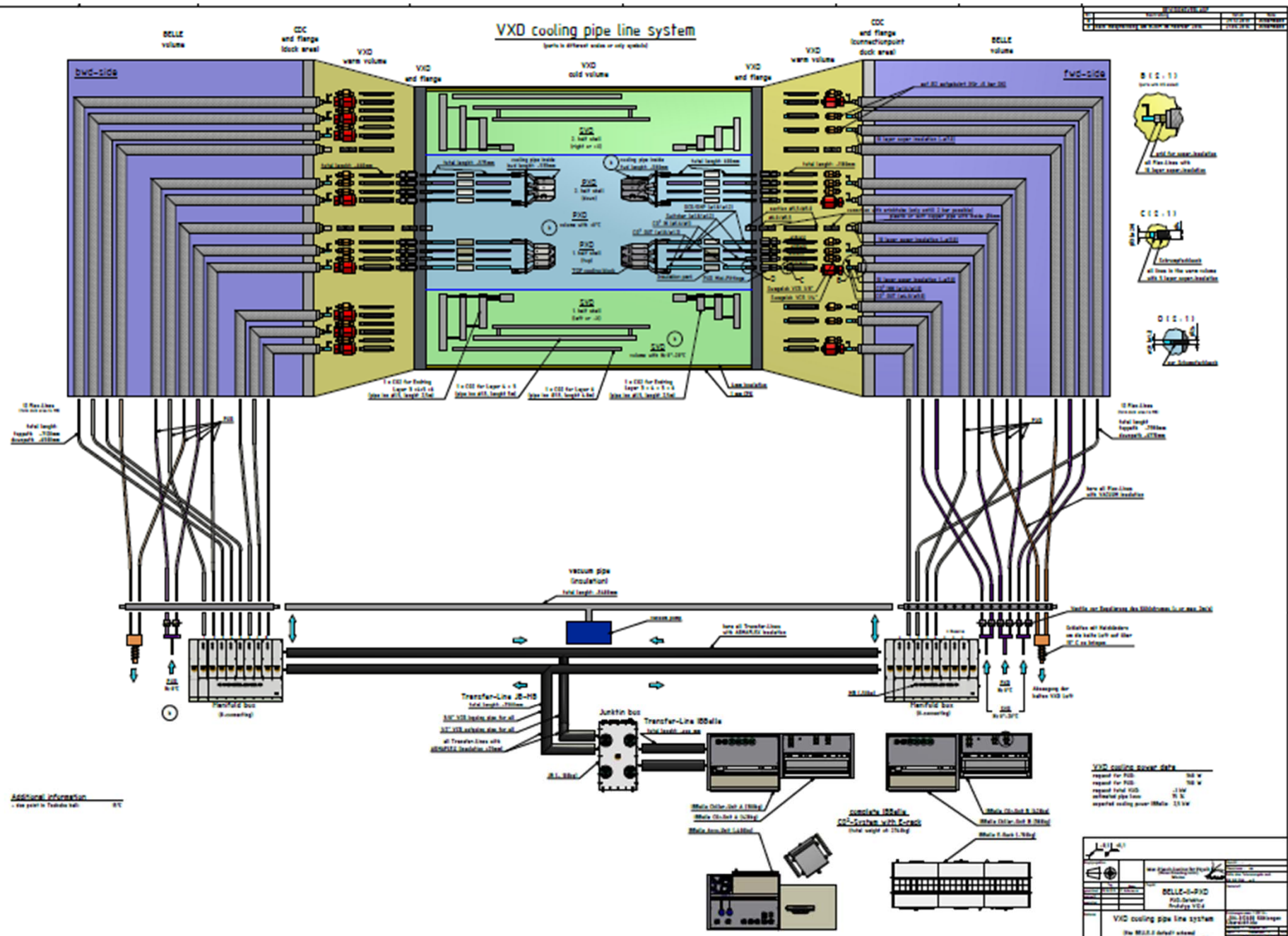
New proposal
(better access to service areas)

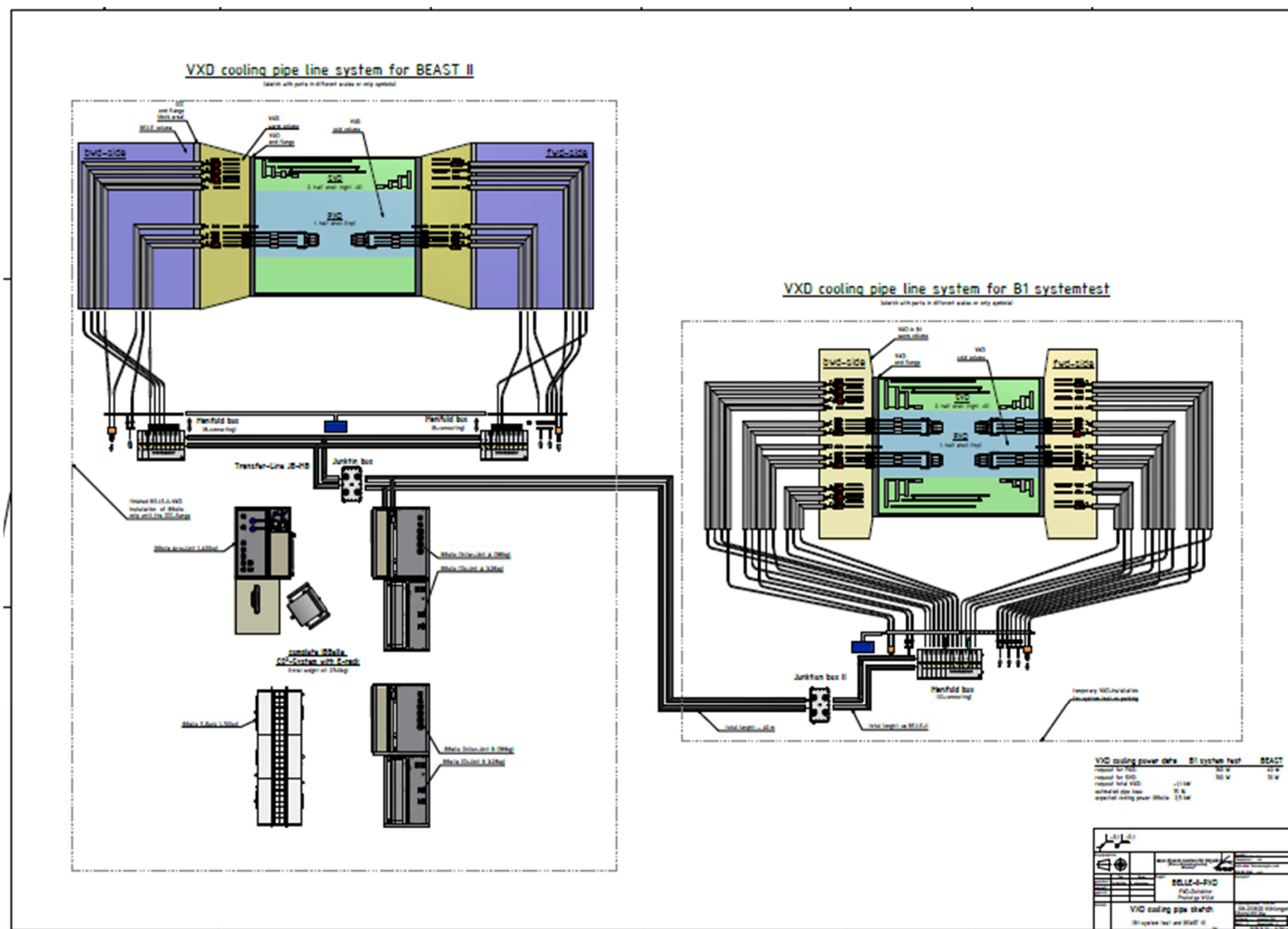


IBBelle Location in Belle II

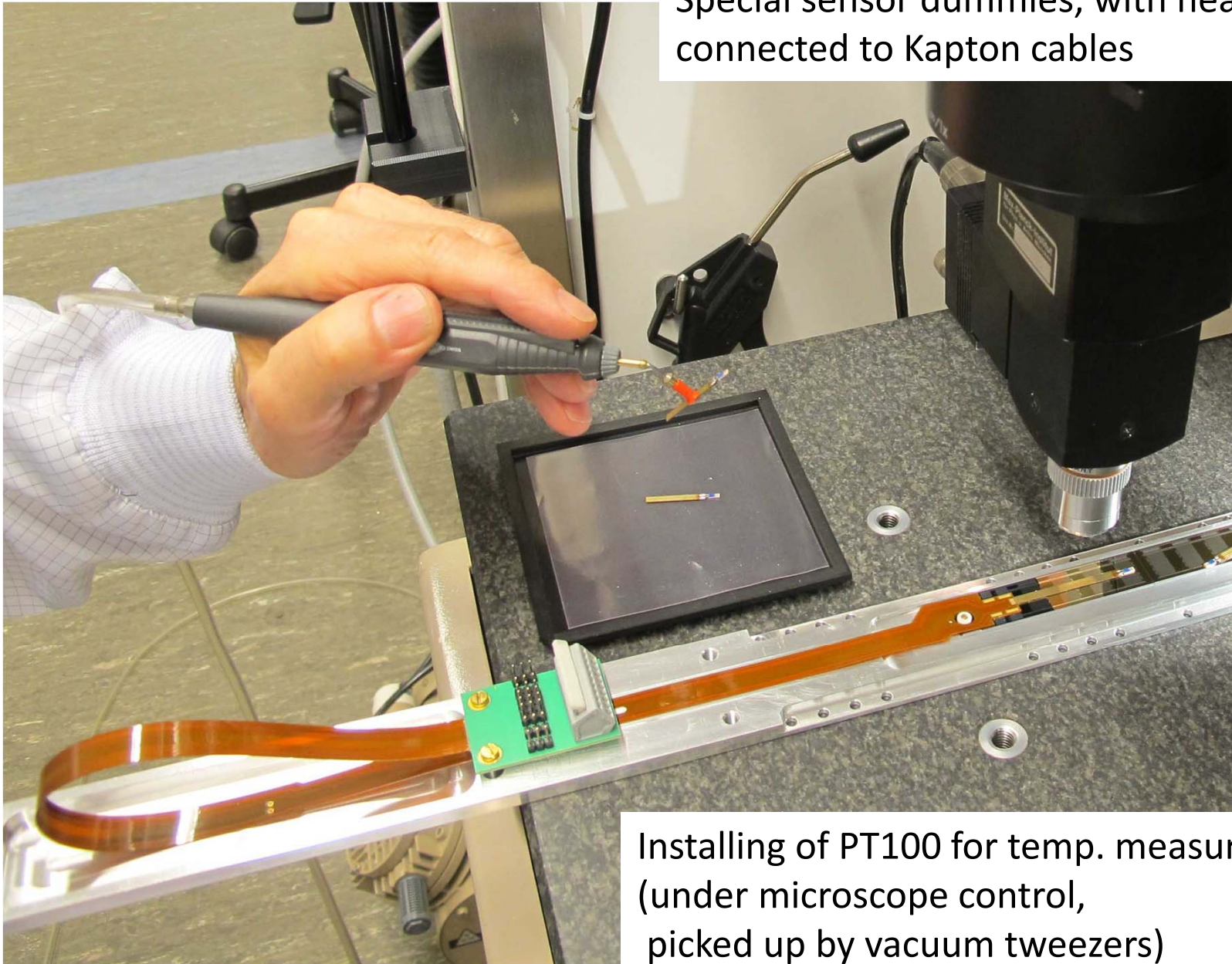


CO₂ Distribution System (Default)





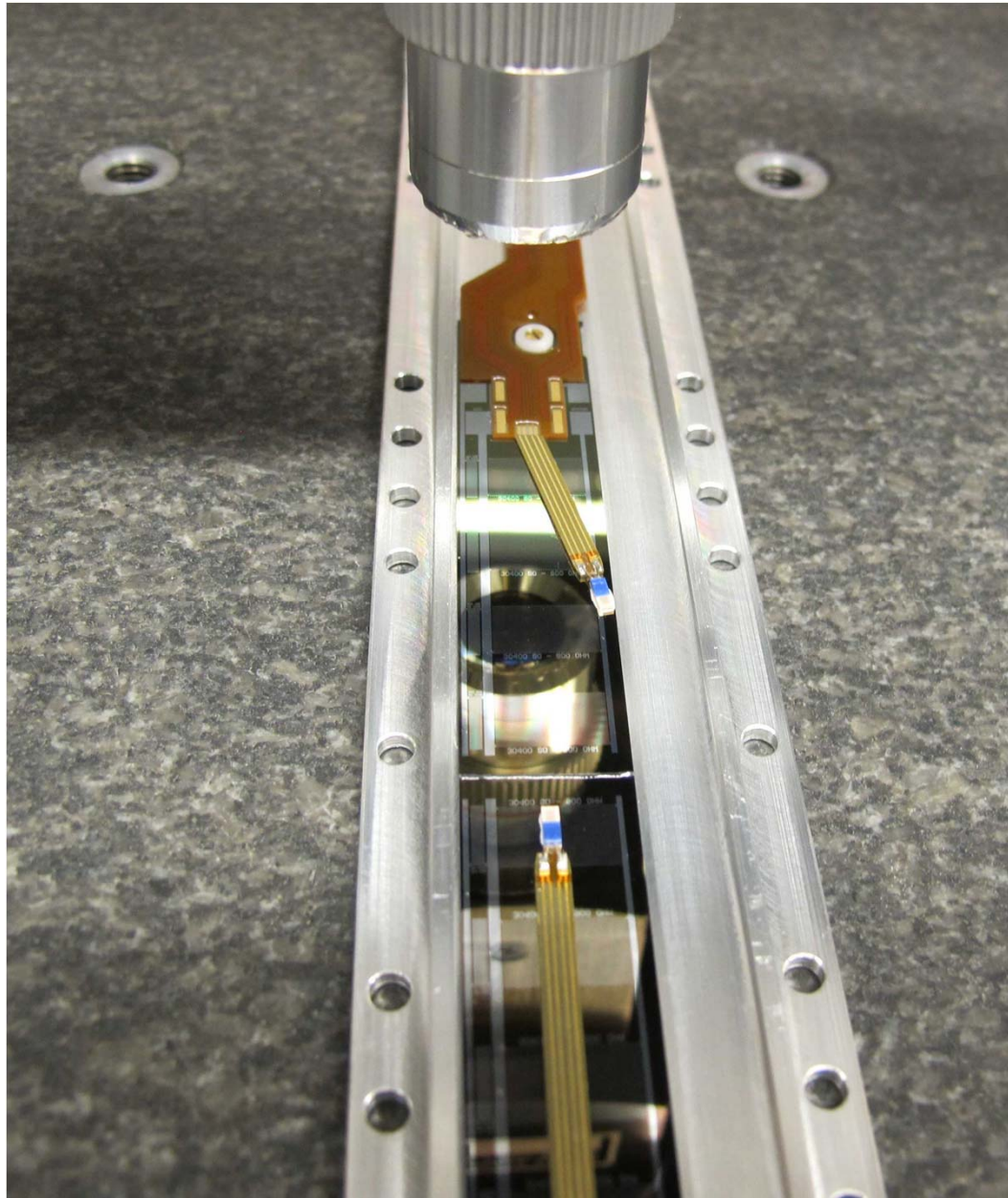
Special sensor dummies, with heating elements, connected to Kapton cables



Installing of PT100 for temp. measurement
(under microscope control,
picked up by vacuum tweezers)

Preparation for Thermal Mockup (II)





Fully equipped “thermal EMCM”

Gluings of modules to ladder done

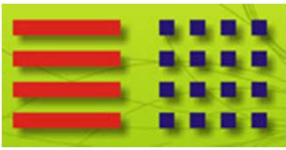
(in transport cage)

Still to do:
Bonding connections for pads to Kapton

- Mechanics of PXD very advanced
- SCBs finalized, ordering imminent
- Grounding scheme close to final
- Service space around PXD/SVD assigned, no space for additional requests
- Discussions on the place for IBBelle ongoing, good solution at the horizon
- Thermal mockup for PXD well on the way

Next steps:

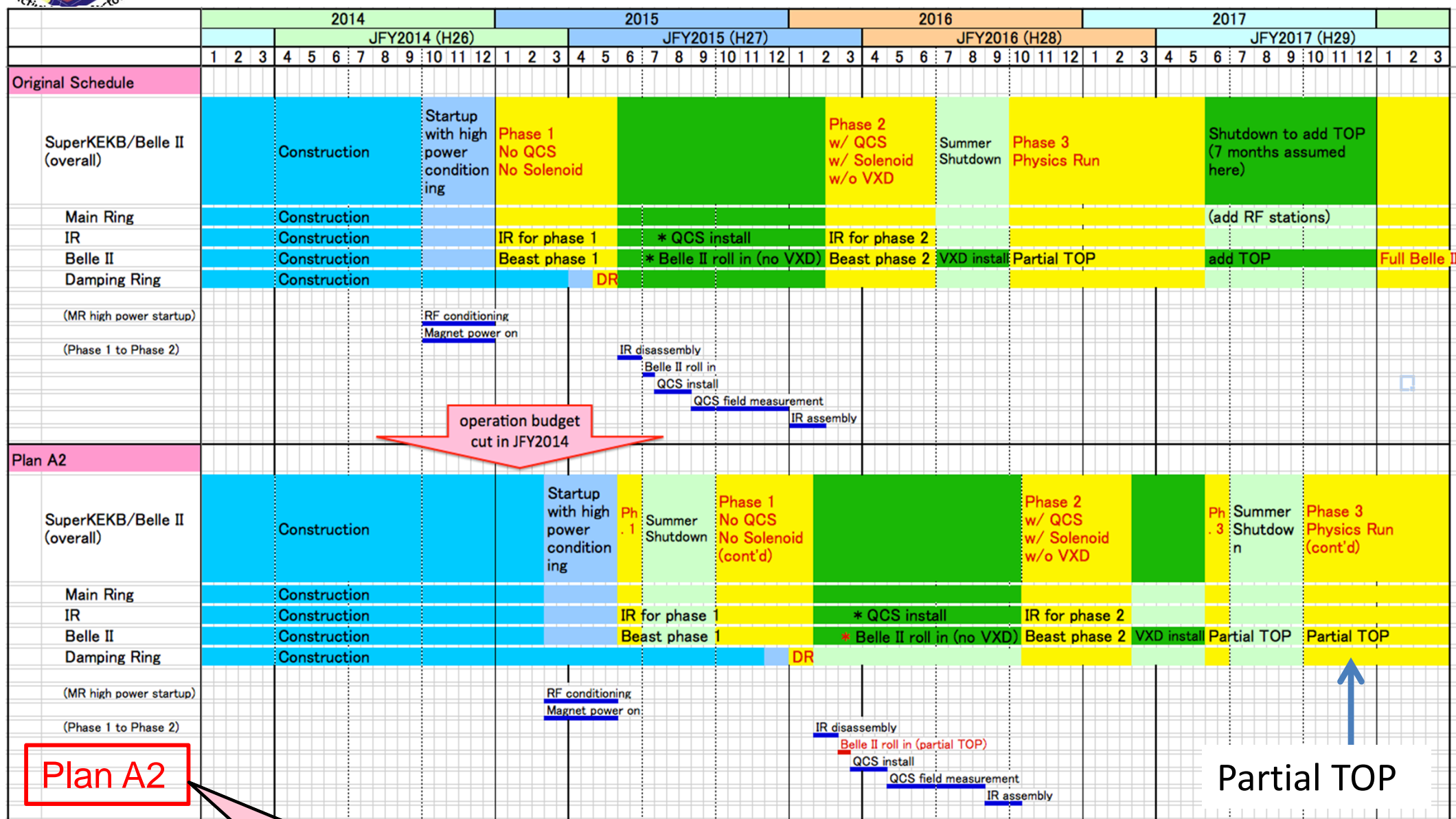
- Kapton design and routing from PXD to VXD flange
- Dry colume, service space, cable/pipe routing



Backup

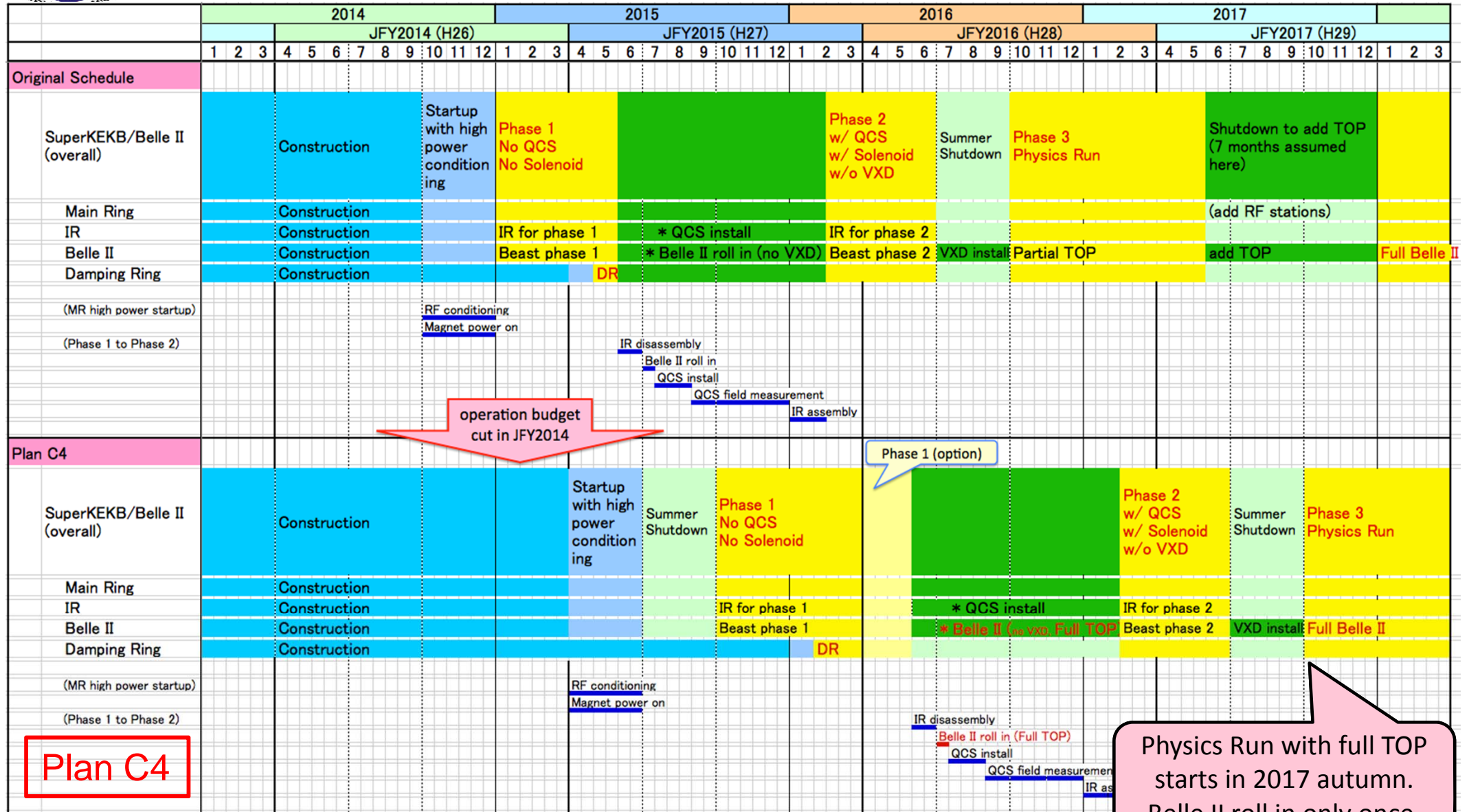


Plan "A2" (top: present baseline)





Plan "C4" (top: present baseline)



Phase 2 with 12 months delay, but full Belle II start as in baseline