

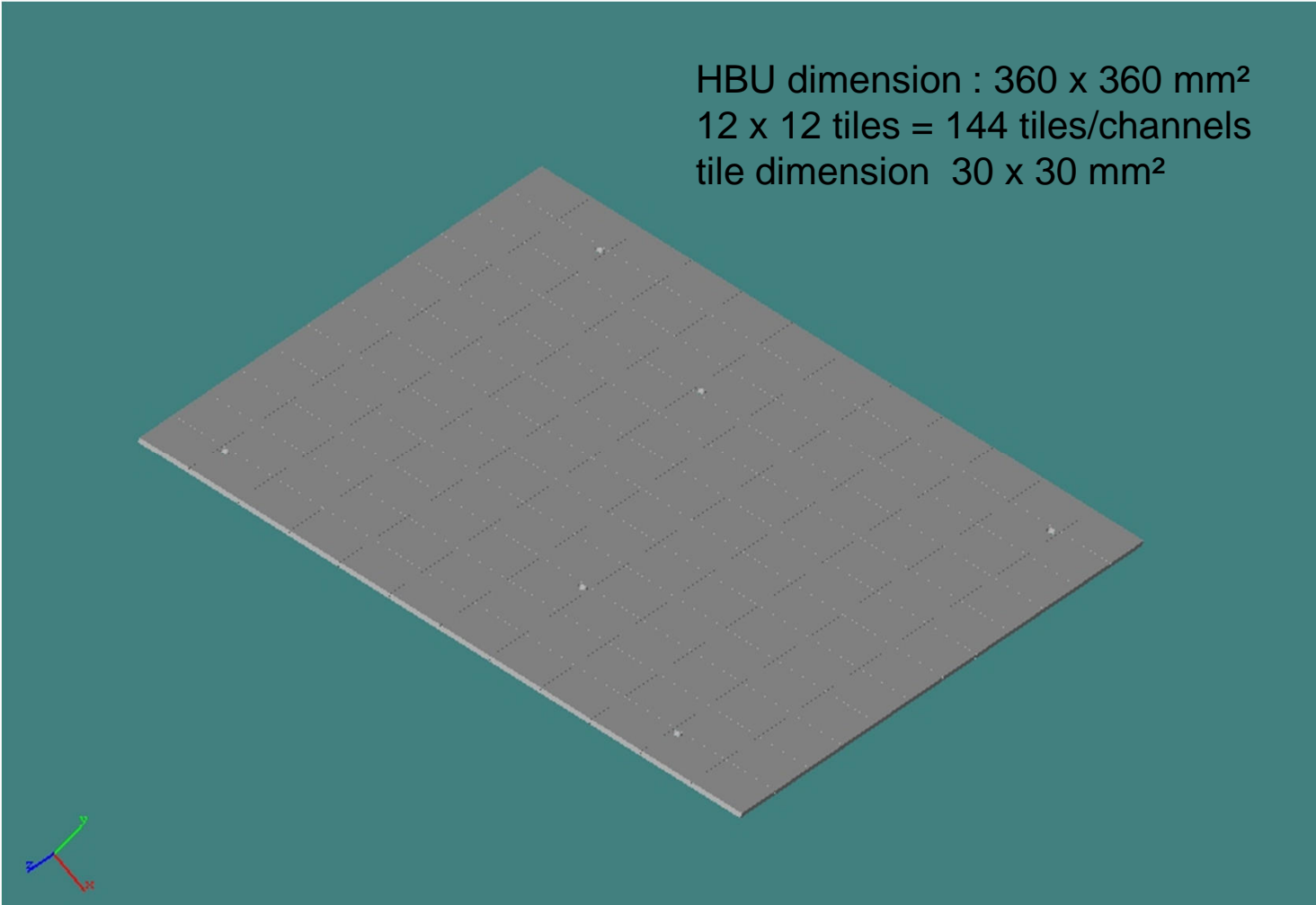
AHCAL ILD barrel and end cap mechanical design

status report

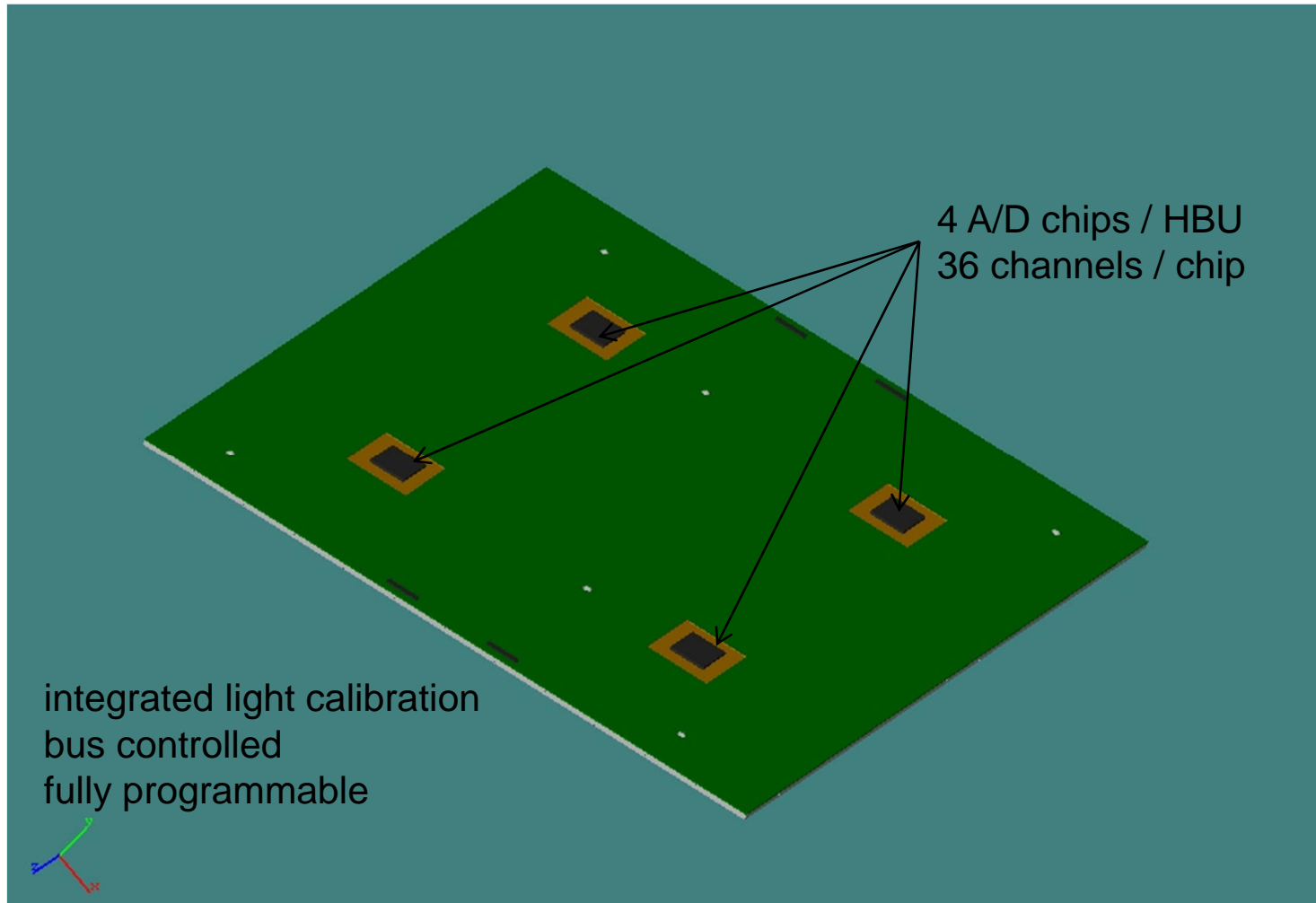
Karsten Gadow
CALICE AHCAL main meeting
DESY, 12.-13.12.2011

AHCAL Base Unit (HBU) scintillator

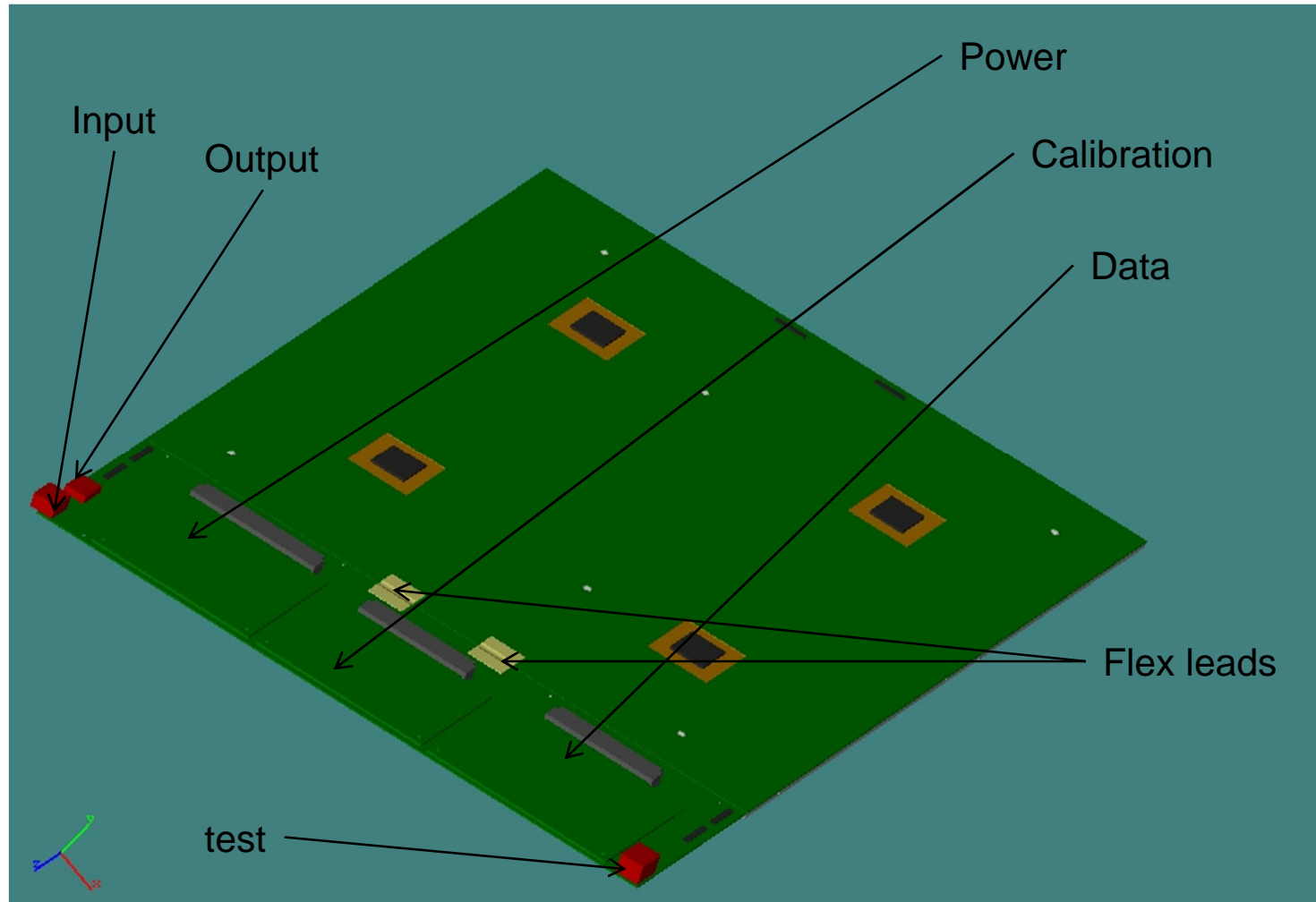
HBU dimension : $360 \times 360 \text{ mm}^2$
12 x 12 tiles = 144 tiles/channels
tile dimension $30 \times 30 \text{ mm}^2$



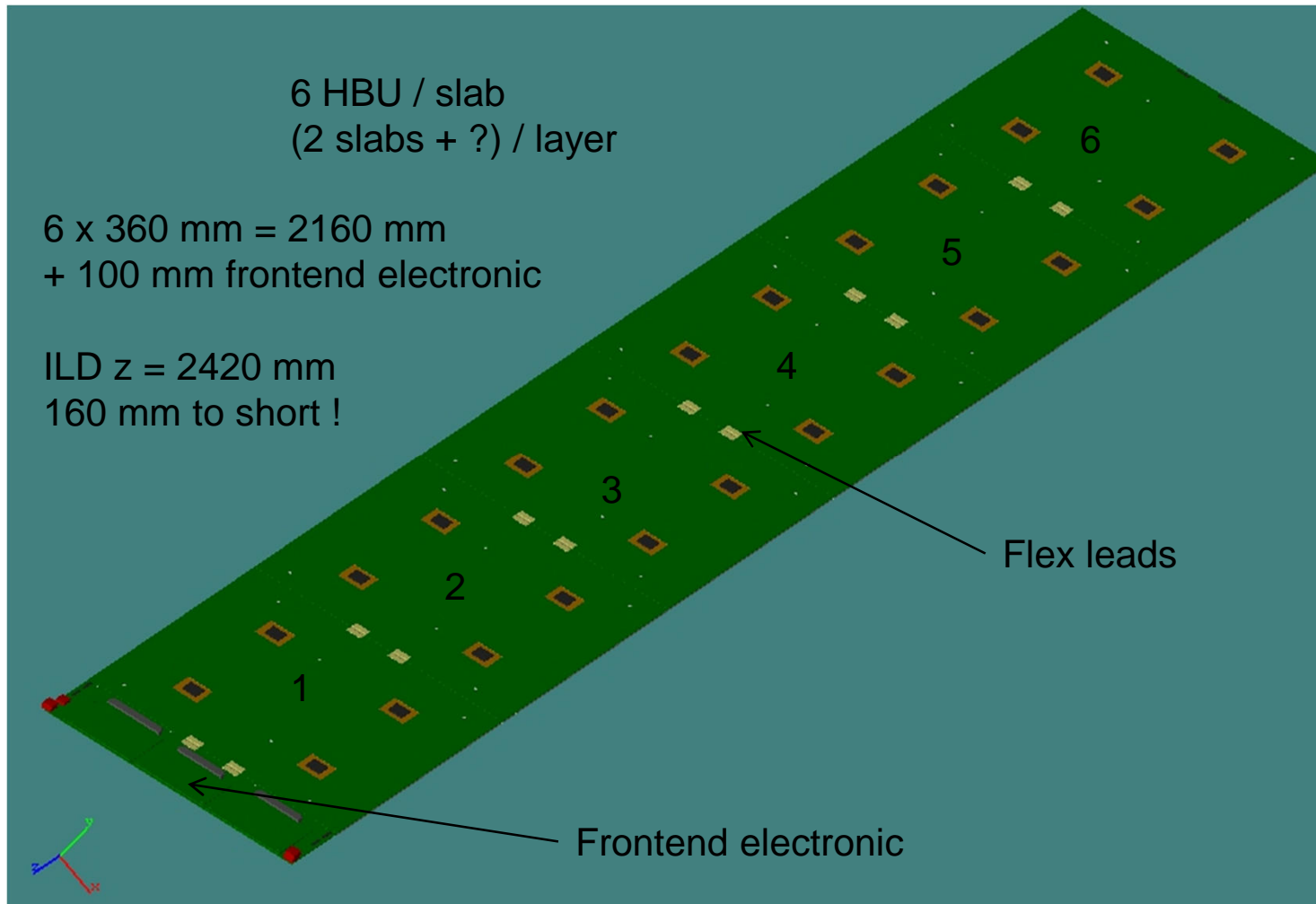
AHCAL Base Unit (HBU) electronic board



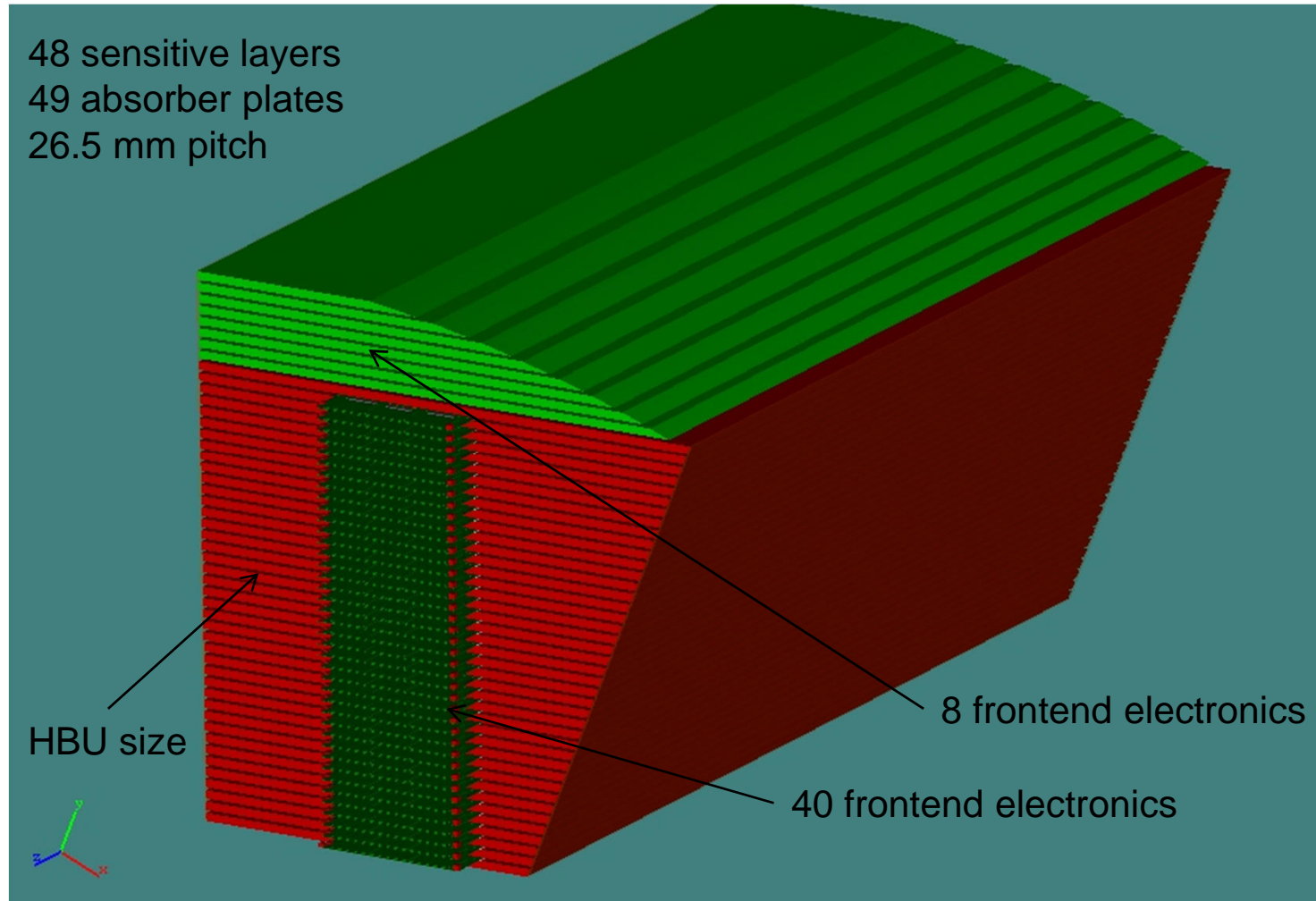
AHCAL layer frontend electronic



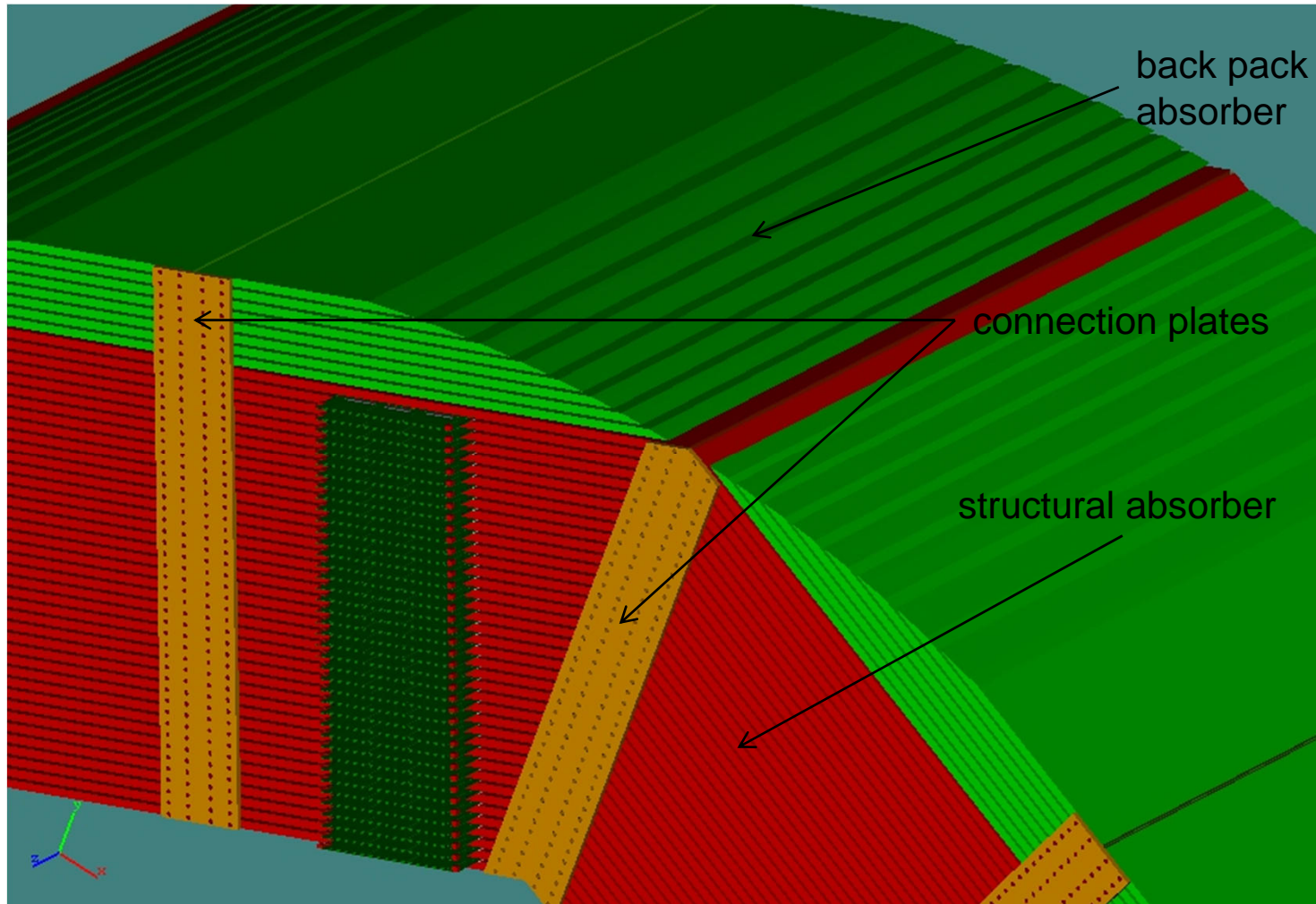
AHCAL layer slab



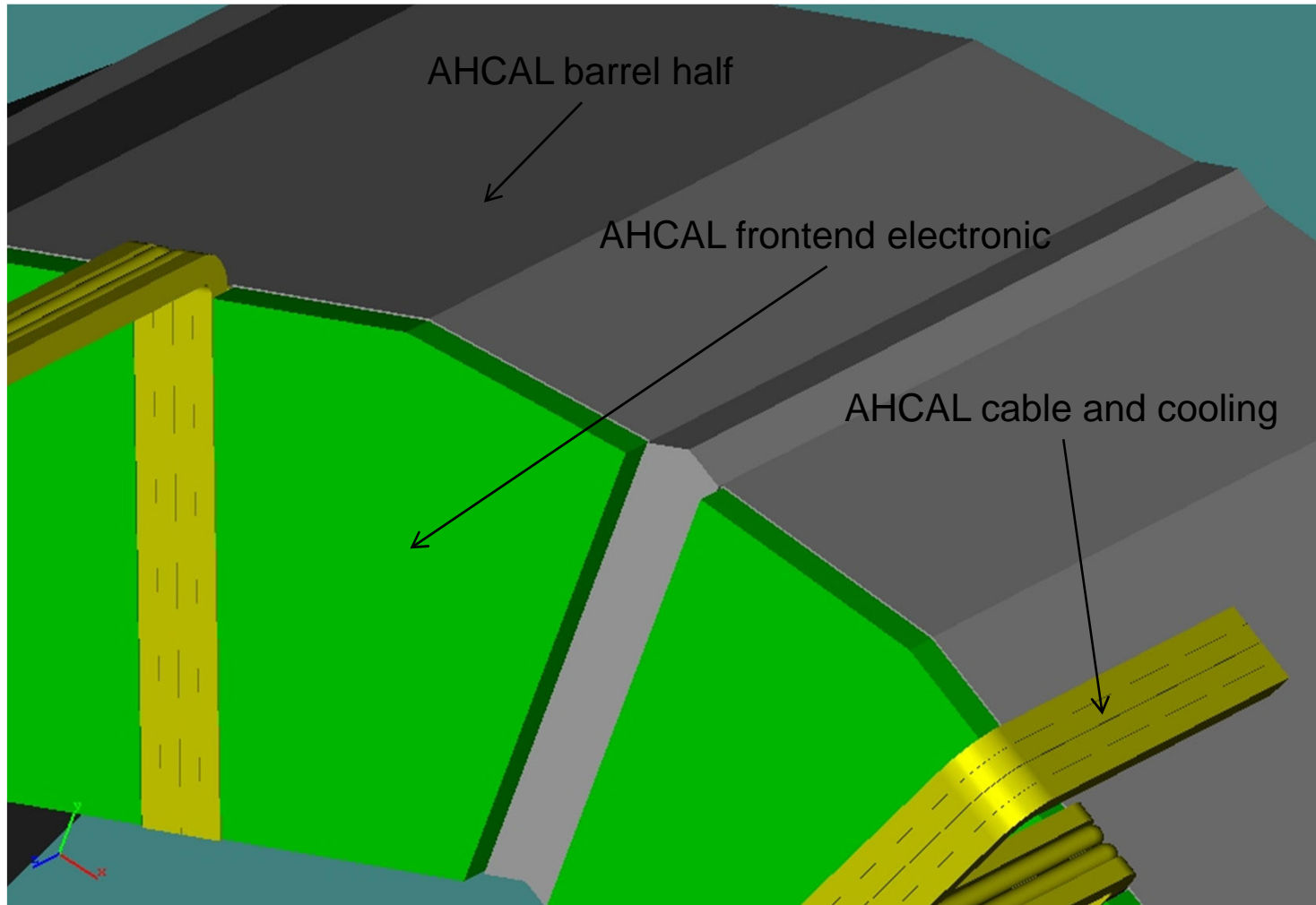
AHCAL barrel stack



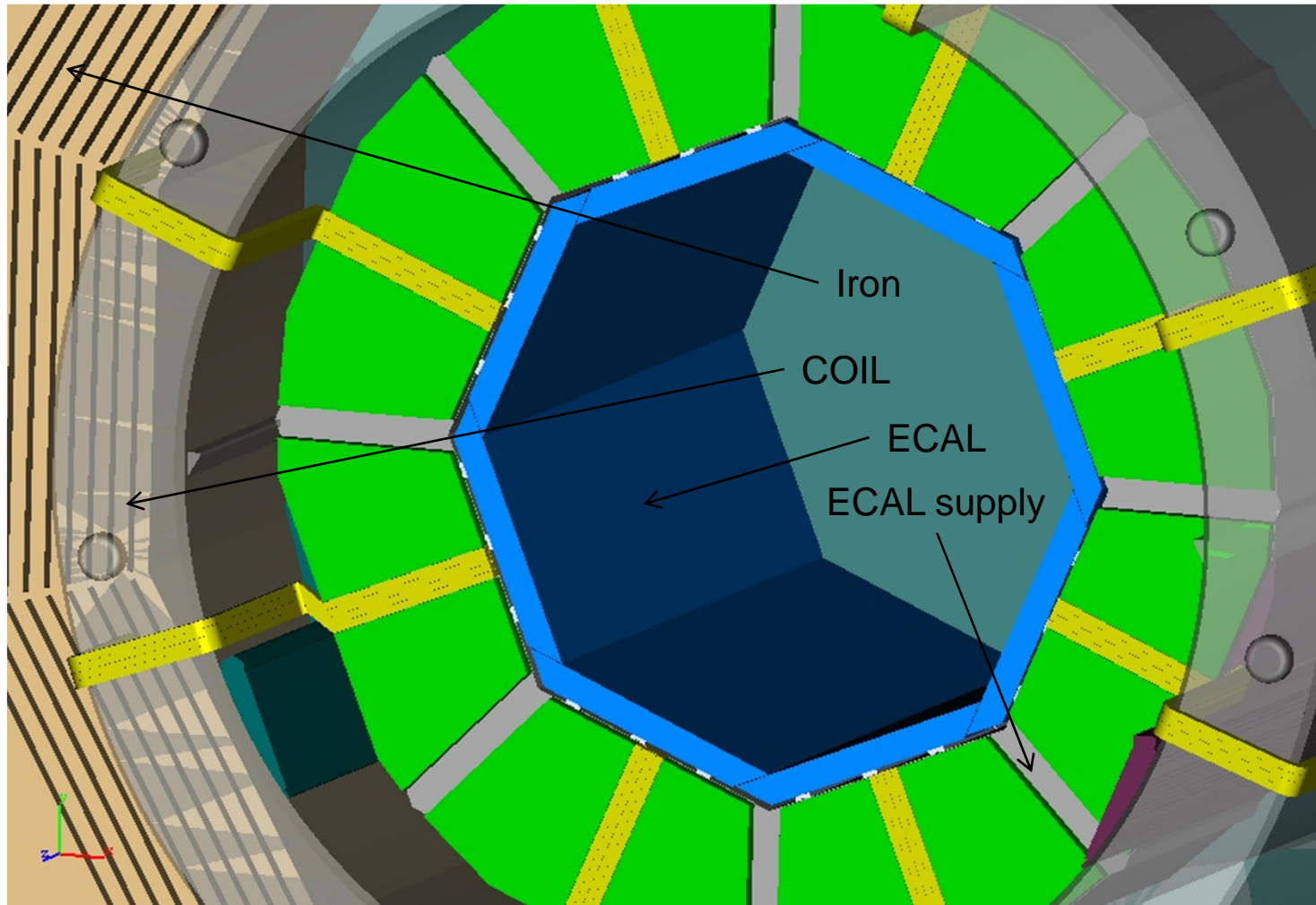
AHCAL barrel absorber structure



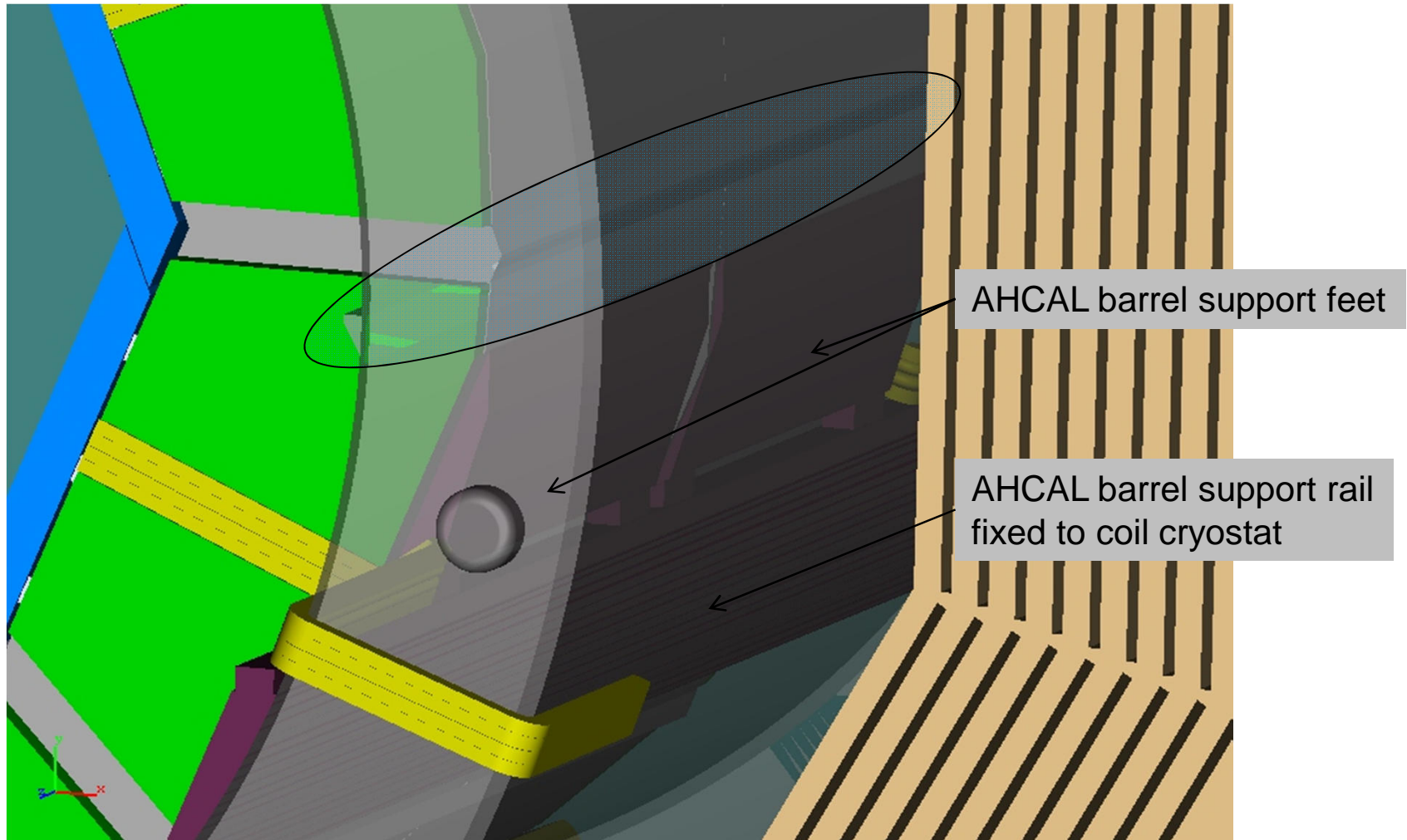
AHCAL barrel placeholder volume



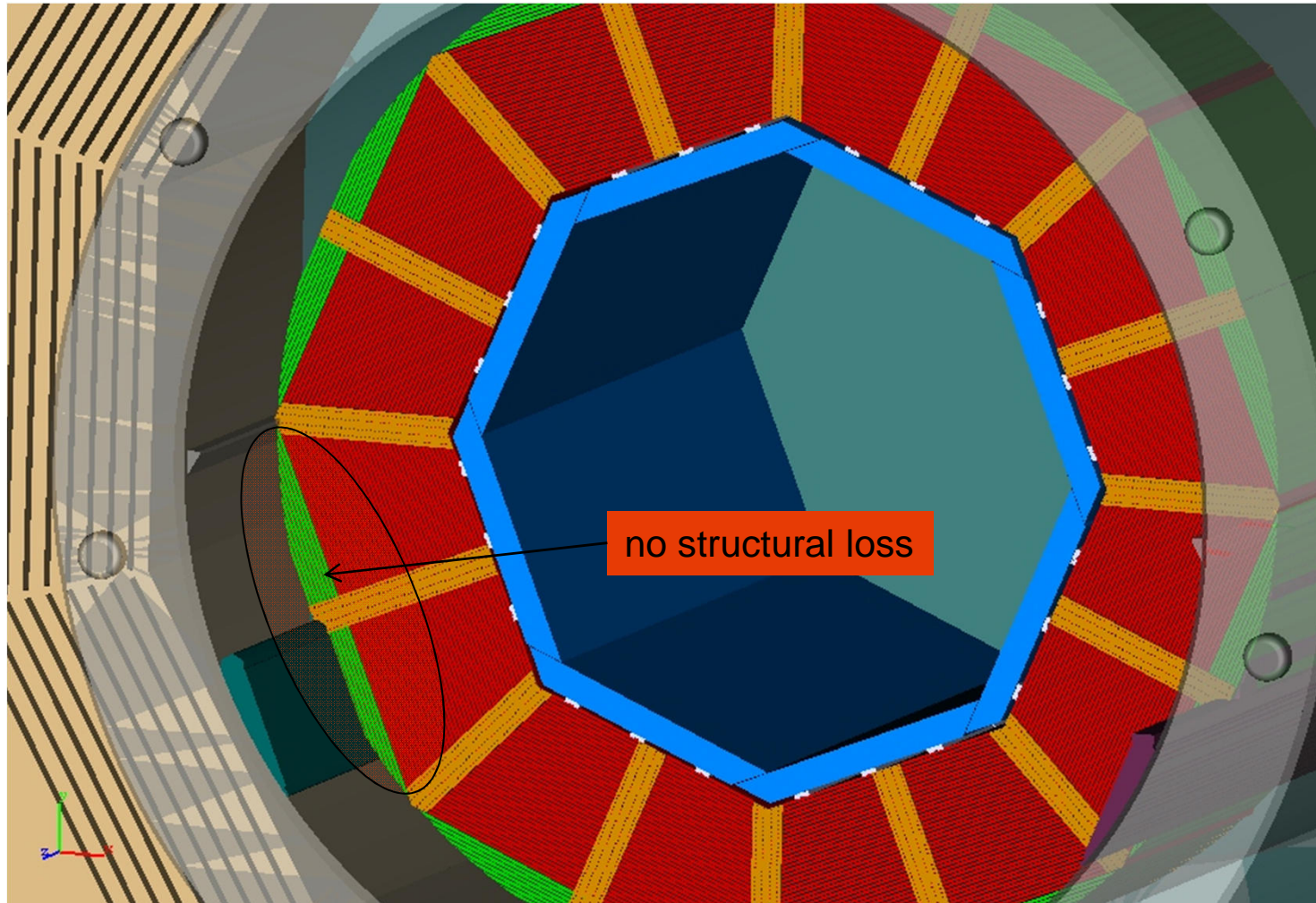
AHCAL barrel with ECAL barrel inside ILD



AHCAL barrel supports



AHCAL barrel supports



AHCAL barrel in ILD summary

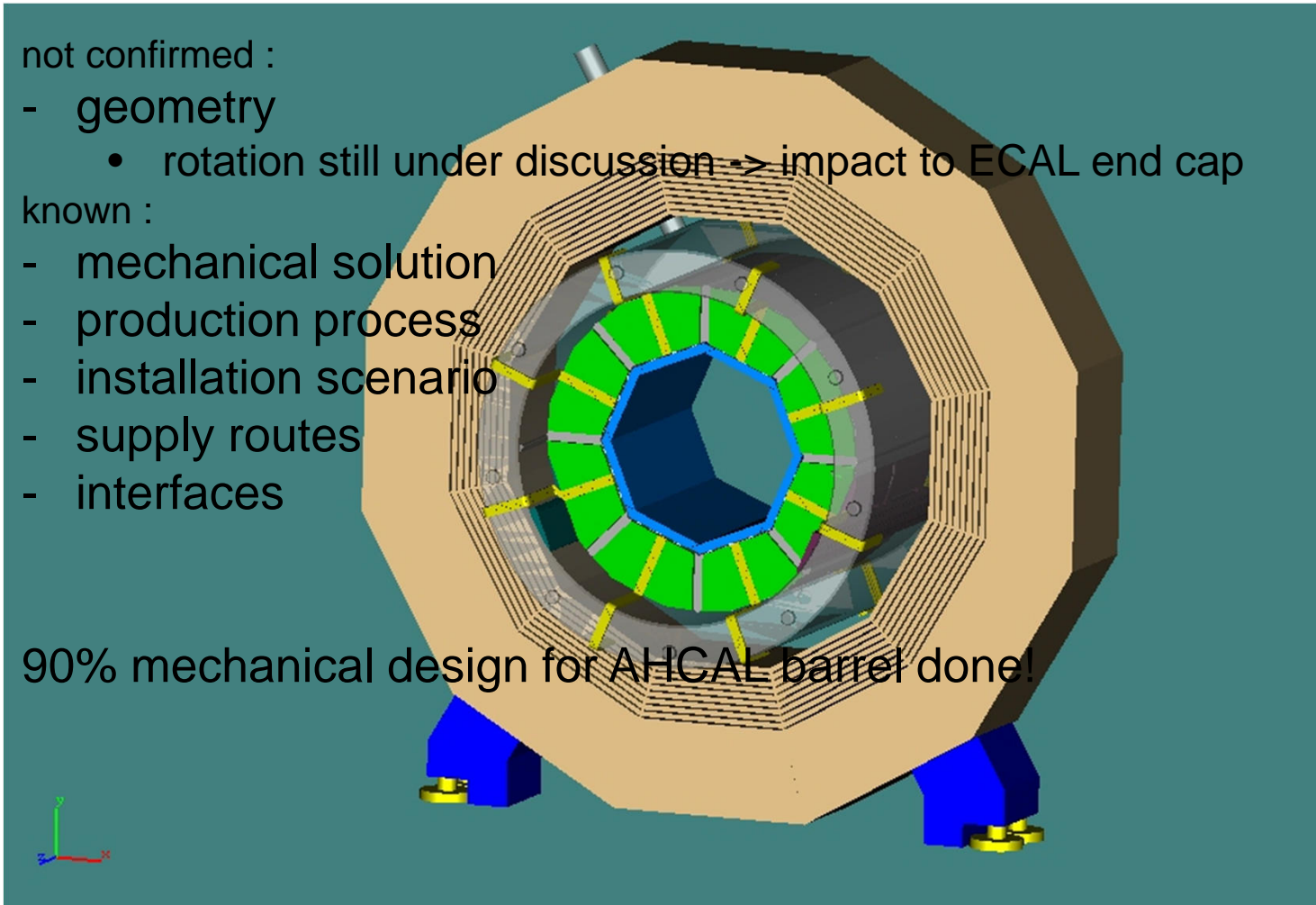
not confirmed :

- geometry
 - rotation still under discussion -> impact to ECAL end cap

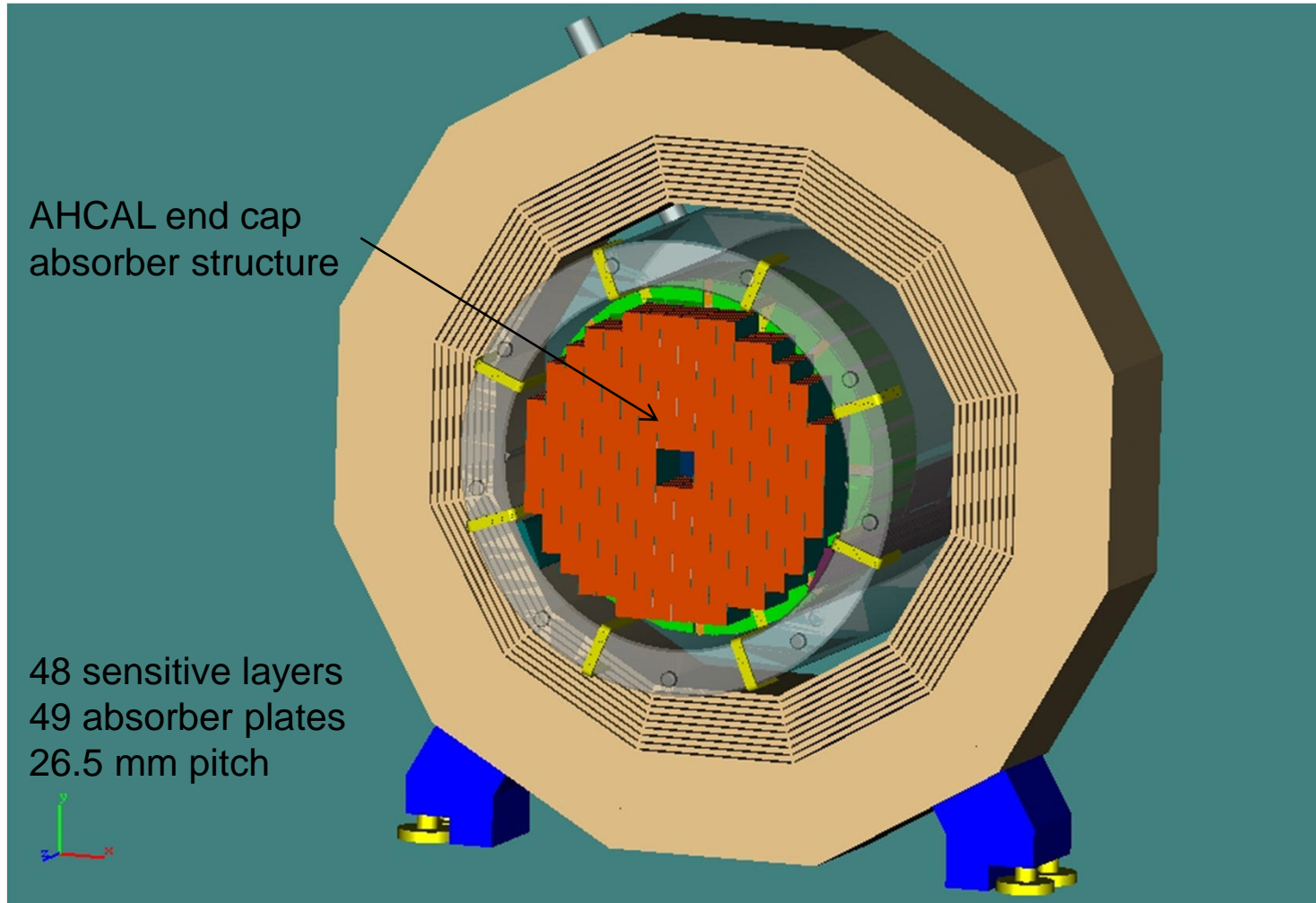
known :

- mechanical solution
- production process
- installation scenario
- supply routes
- interfaces

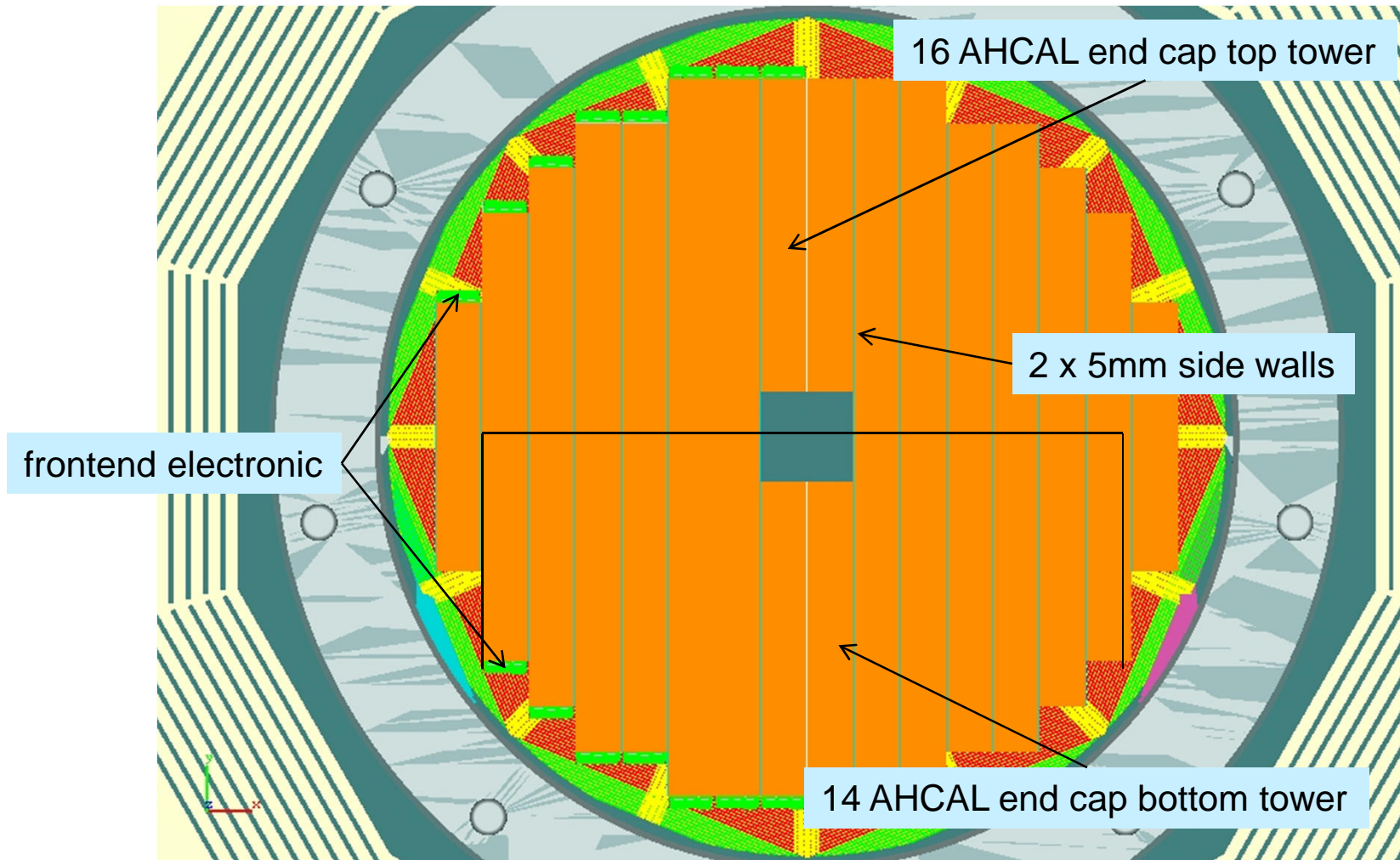
90% mechanical design for AHCAL barrel done!



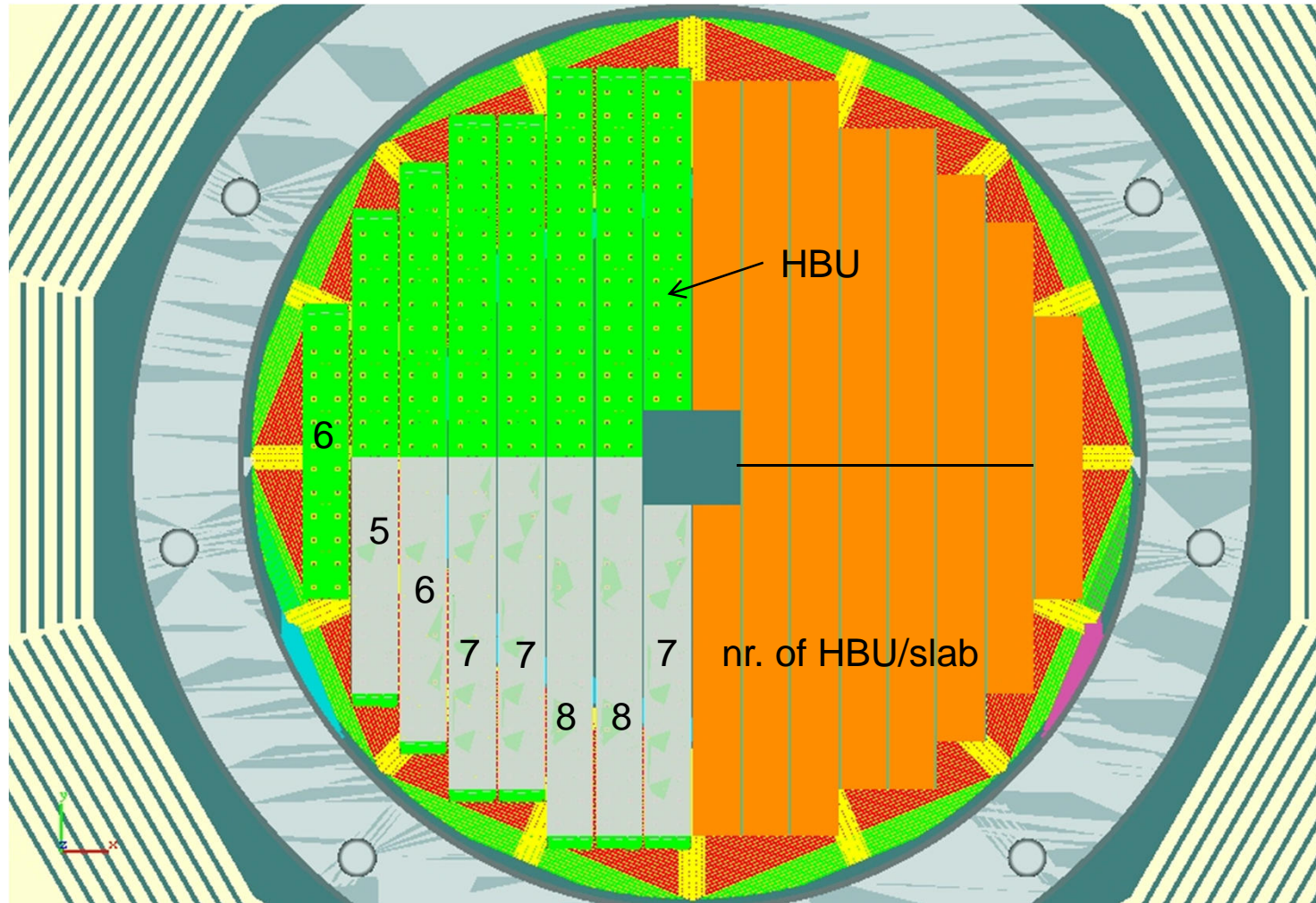
AHCAL end cap absorber structure



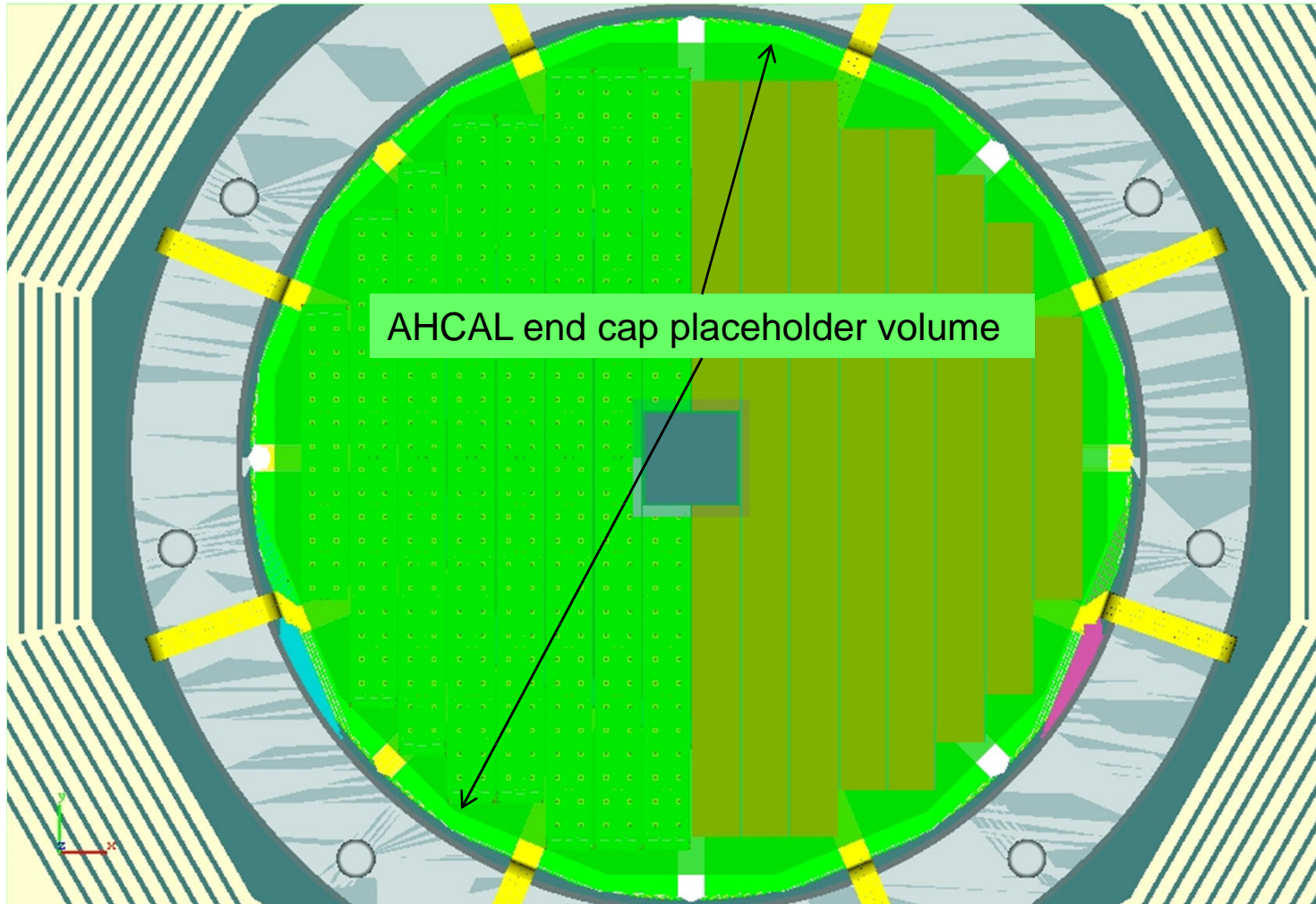
AHCAL end cap



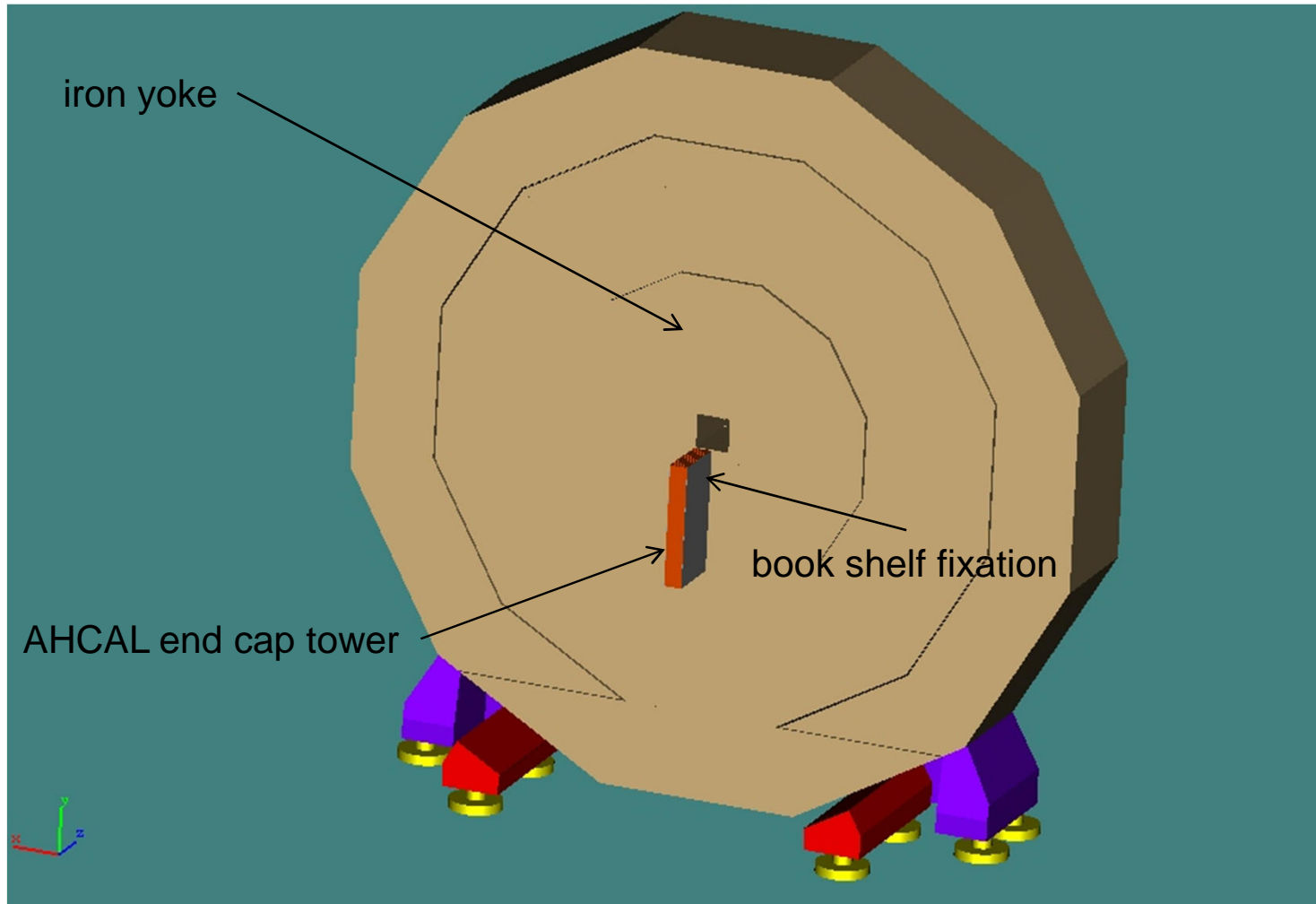
AHCAL end cap electronics



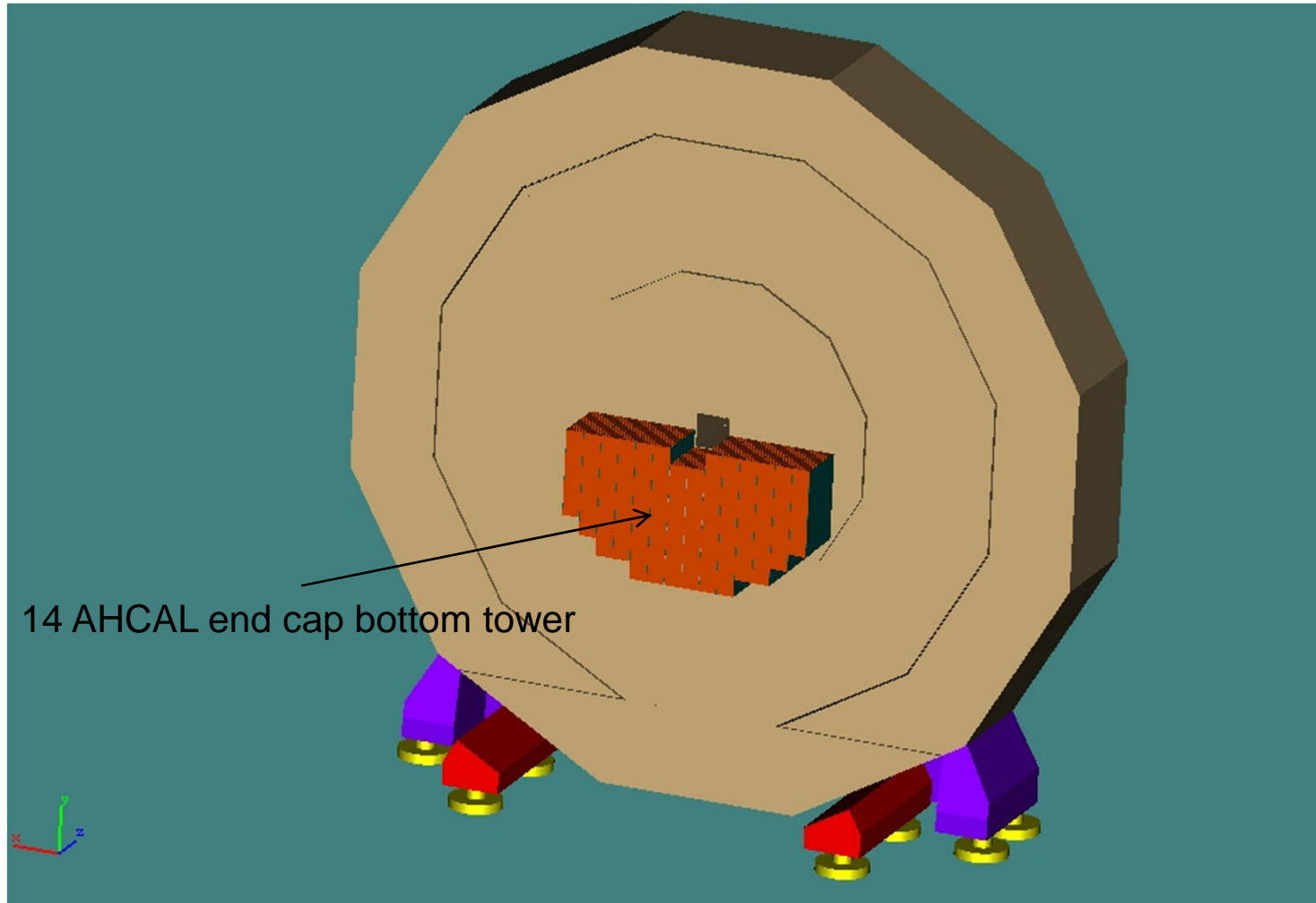
AHCAL end cap placeholder volume



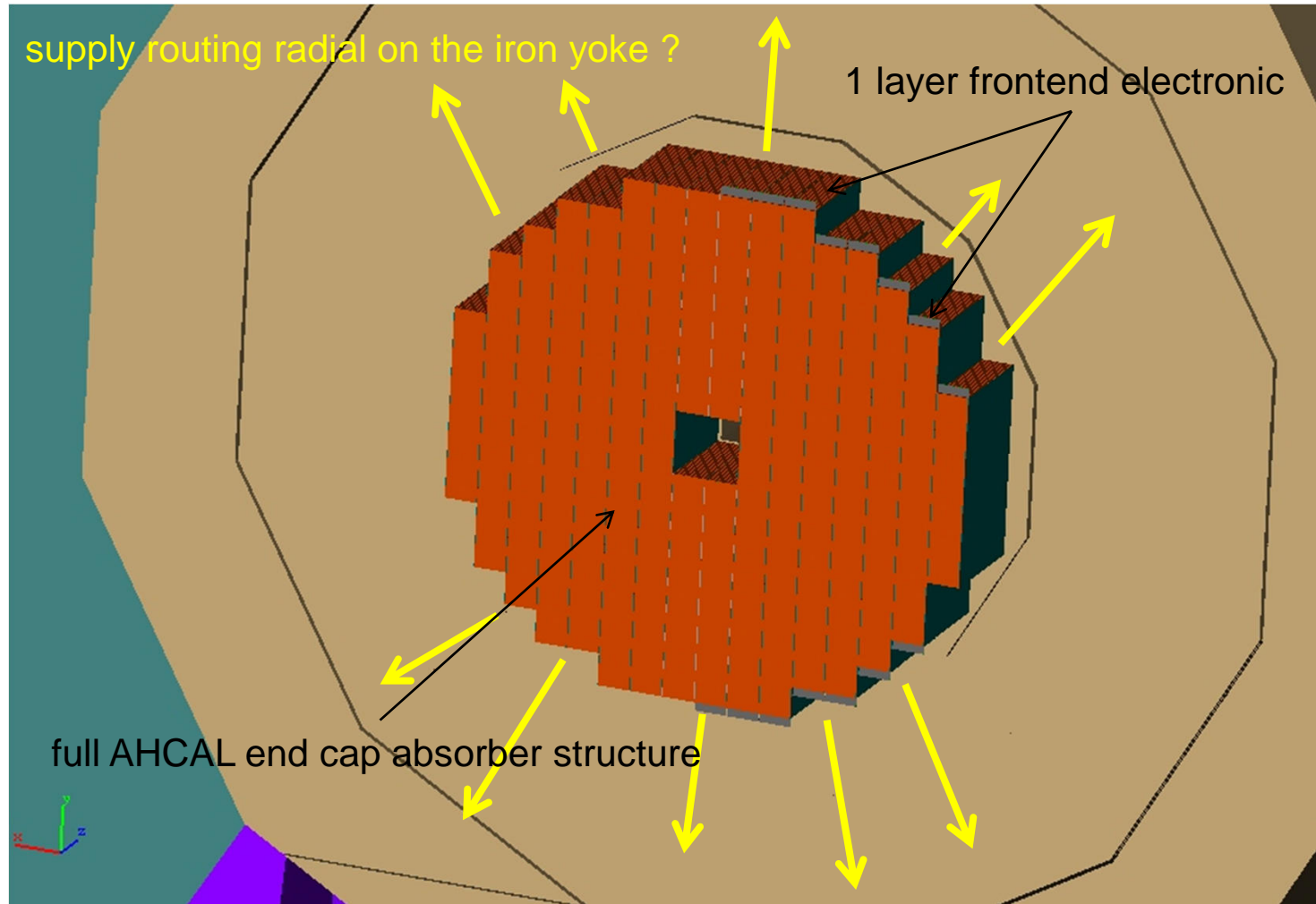
AHCAL end cap support



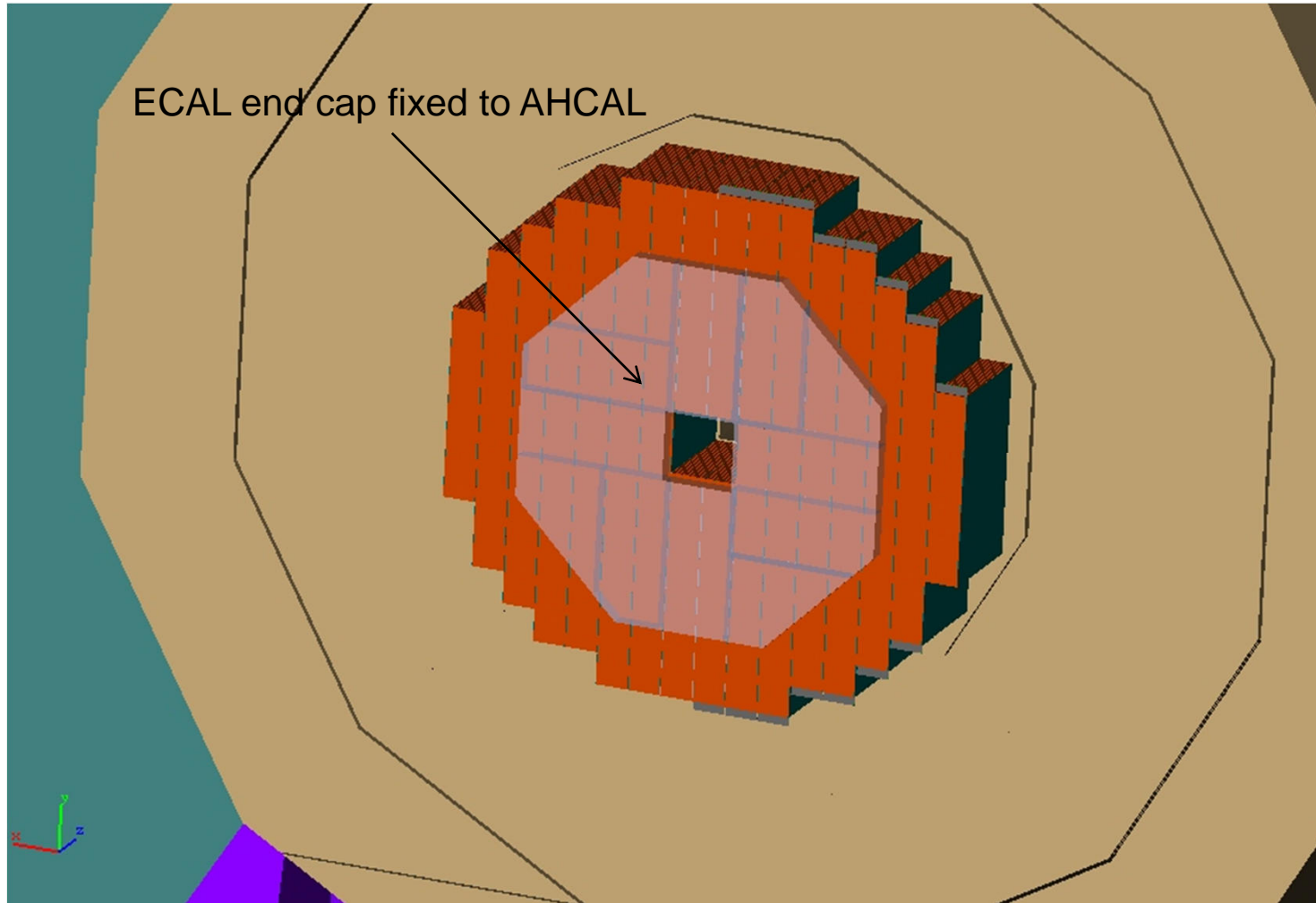
AHCAL end cap installation



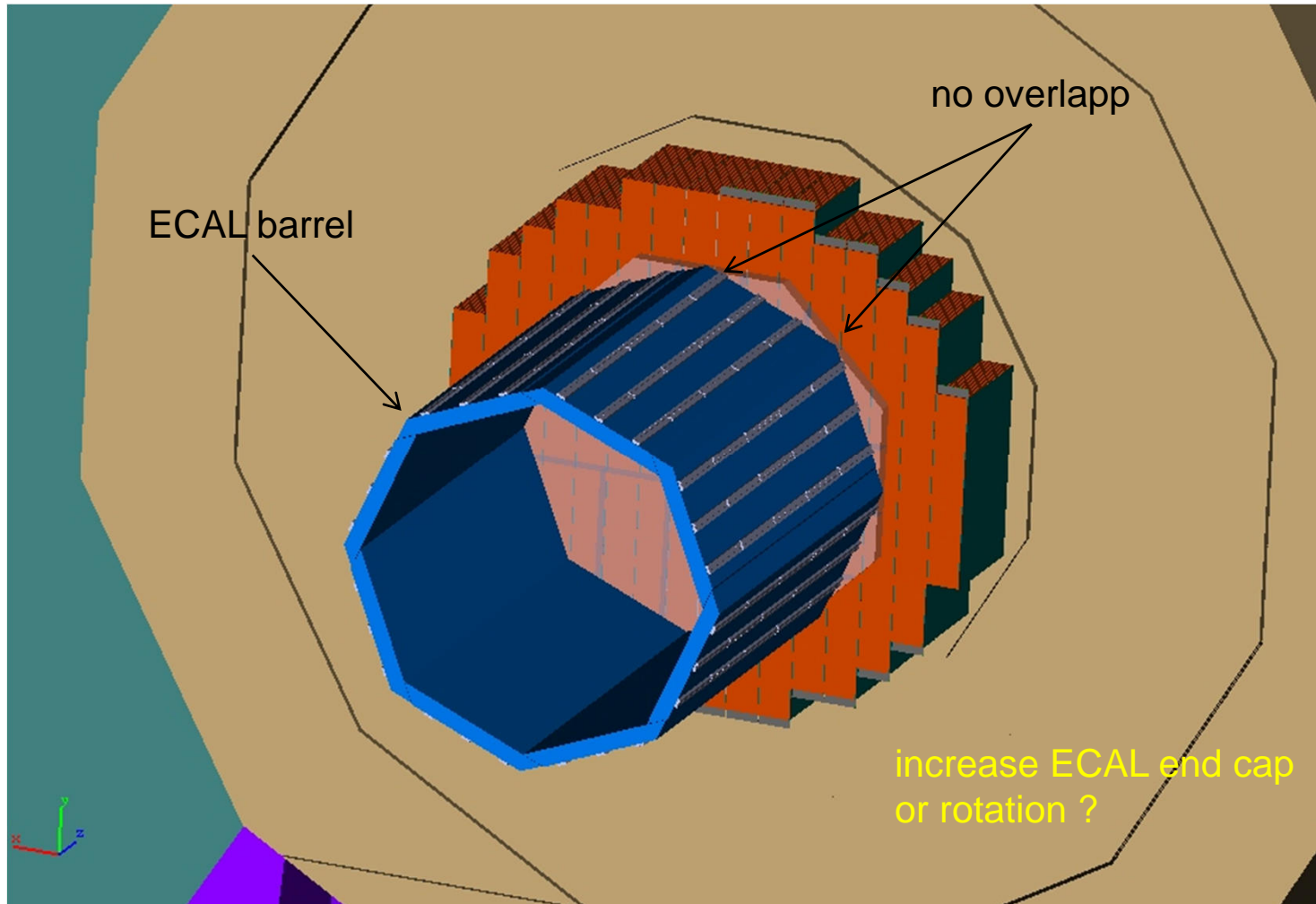
AHCAL end cap supply



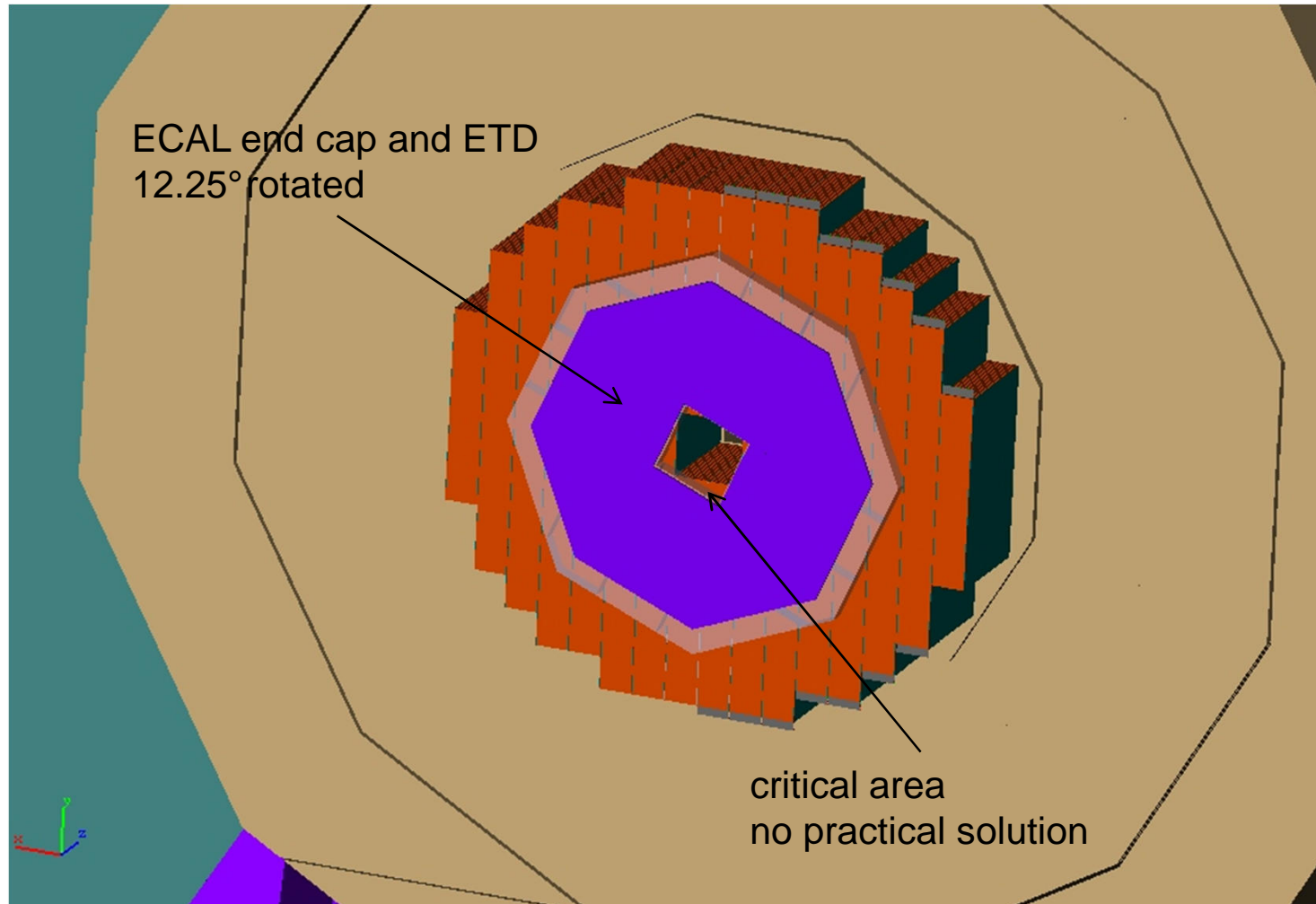
AHCAL end cap with ECAL end cap



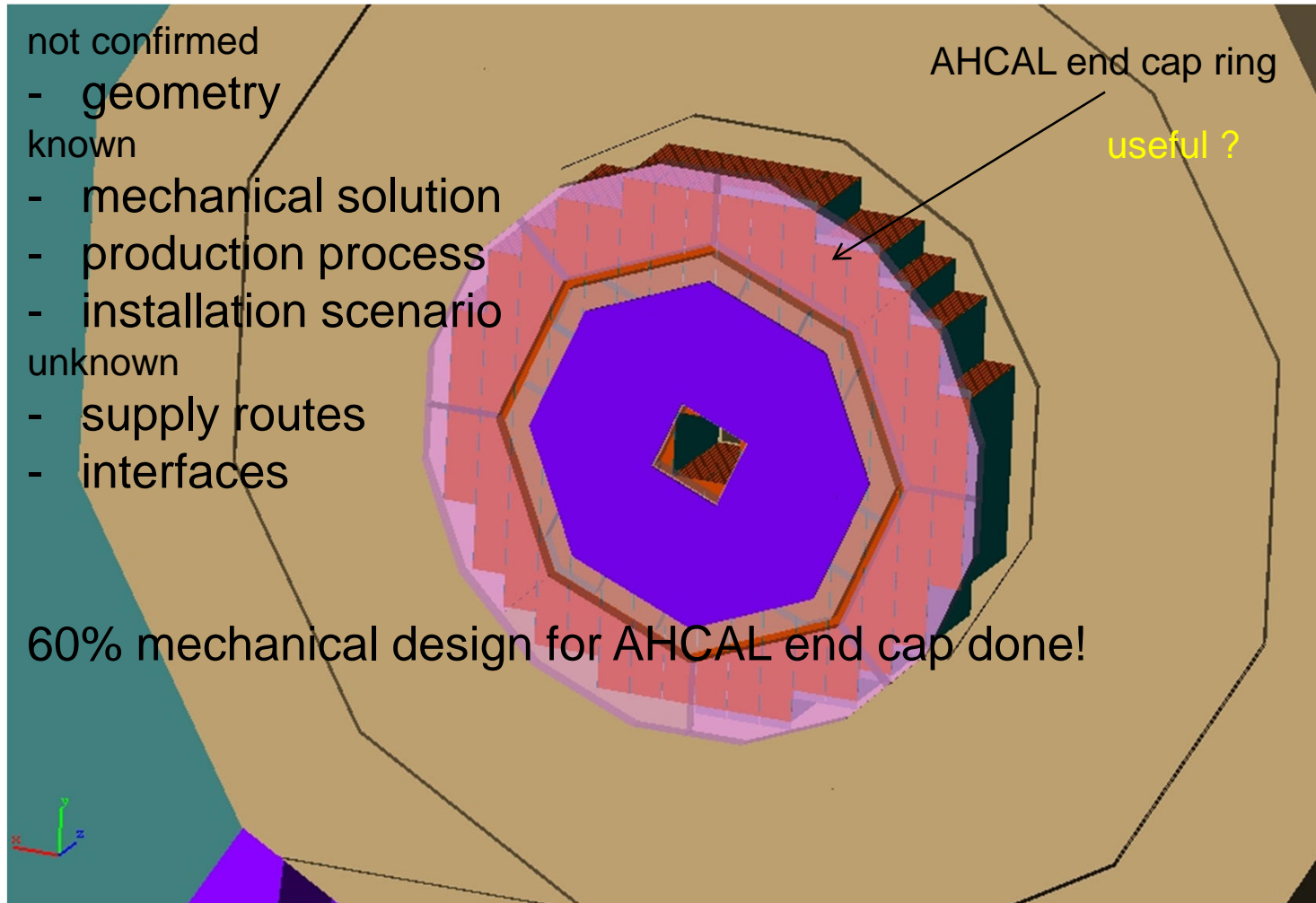
AHCAL end cap with ECAL end cap and barrel



AHCAL end cap with ECAL end cap and ETD rotated



AHCAL end cap in ILD summary

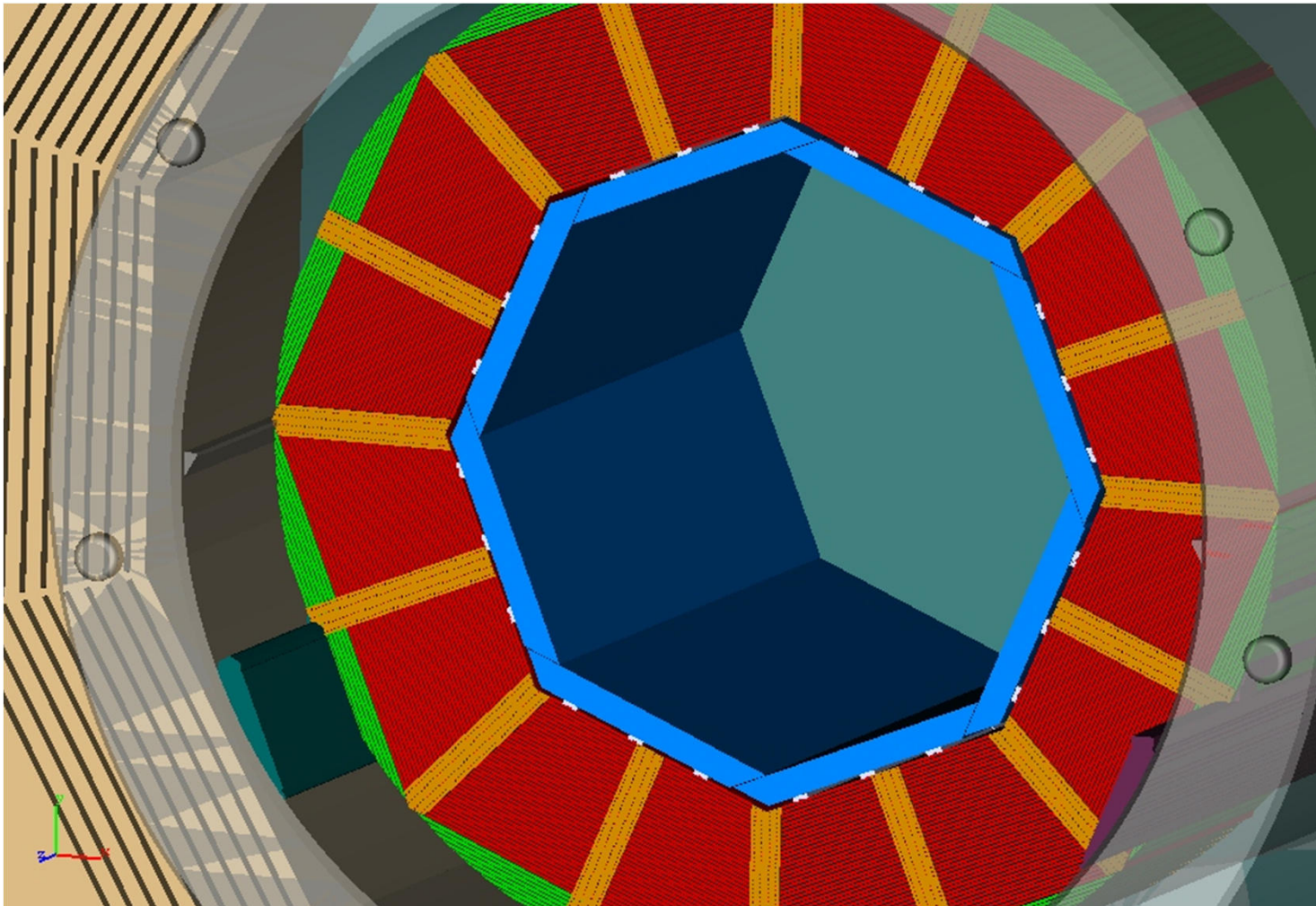


Backup

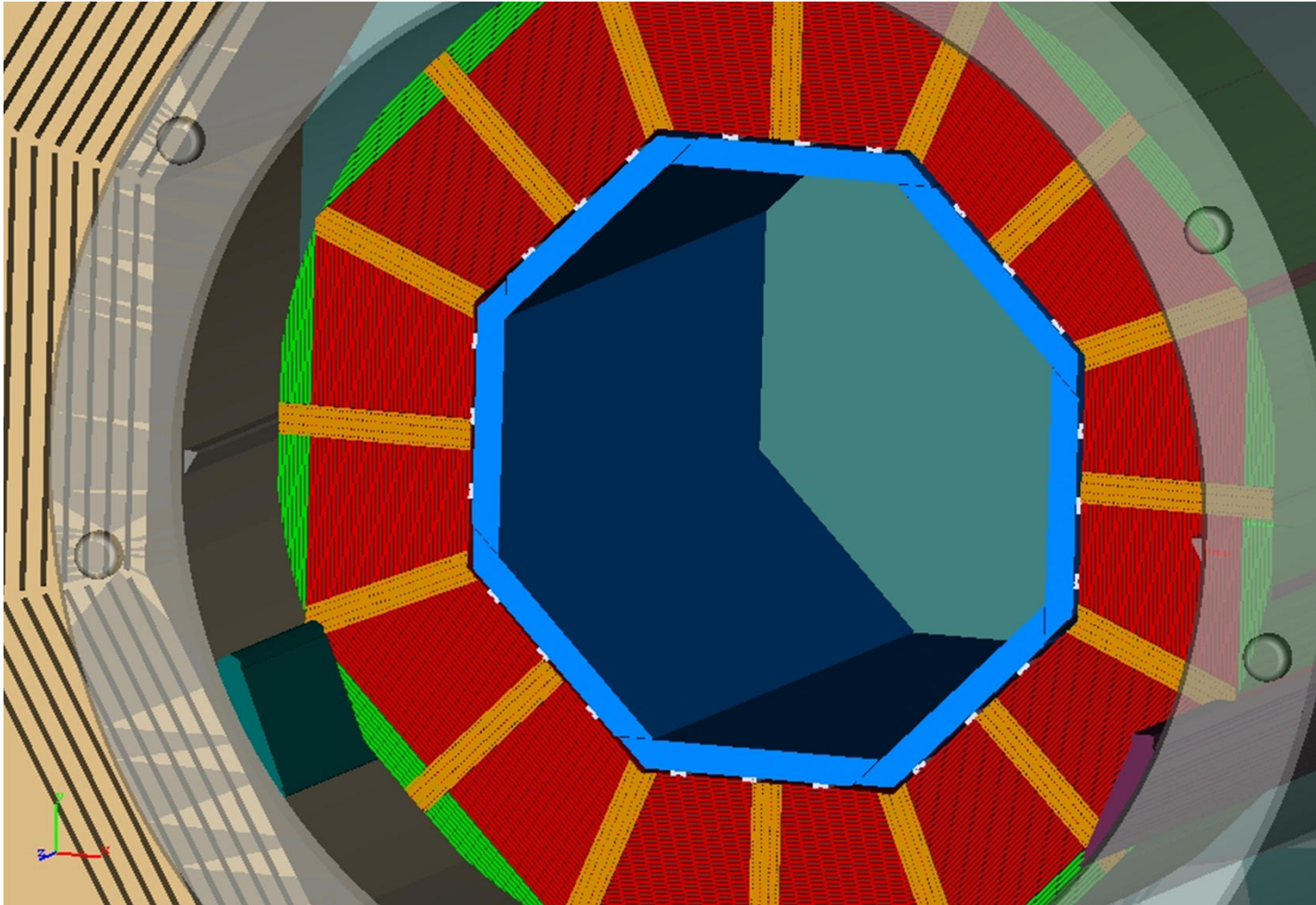
> Rotation of AHCAL barrel ?



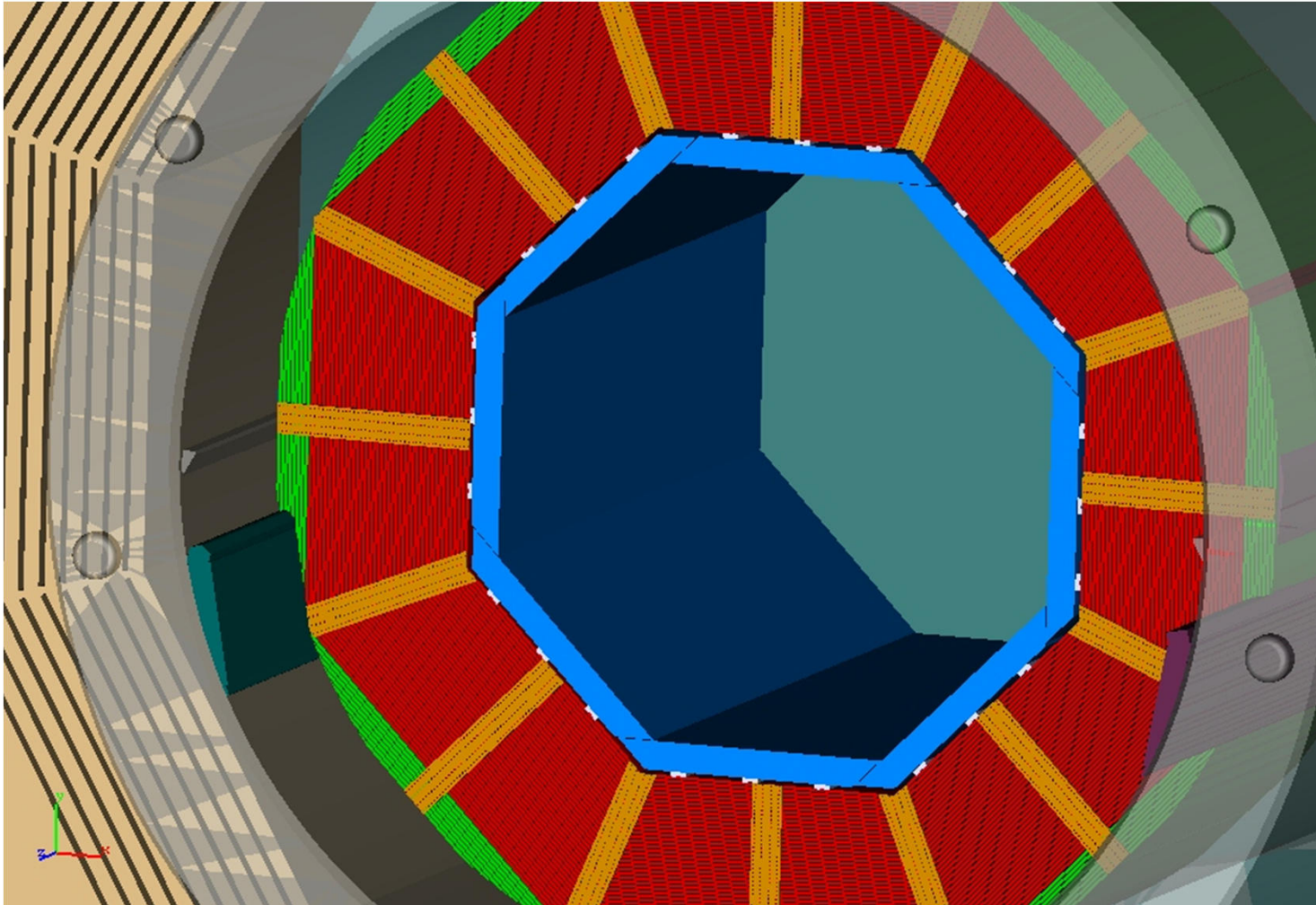
AHCAL barrel current solution



AHCAL barrel old solution with current support



AHCAL barrel old solution with modified support



AHCAL barrel old solution with front end electronic and supply

