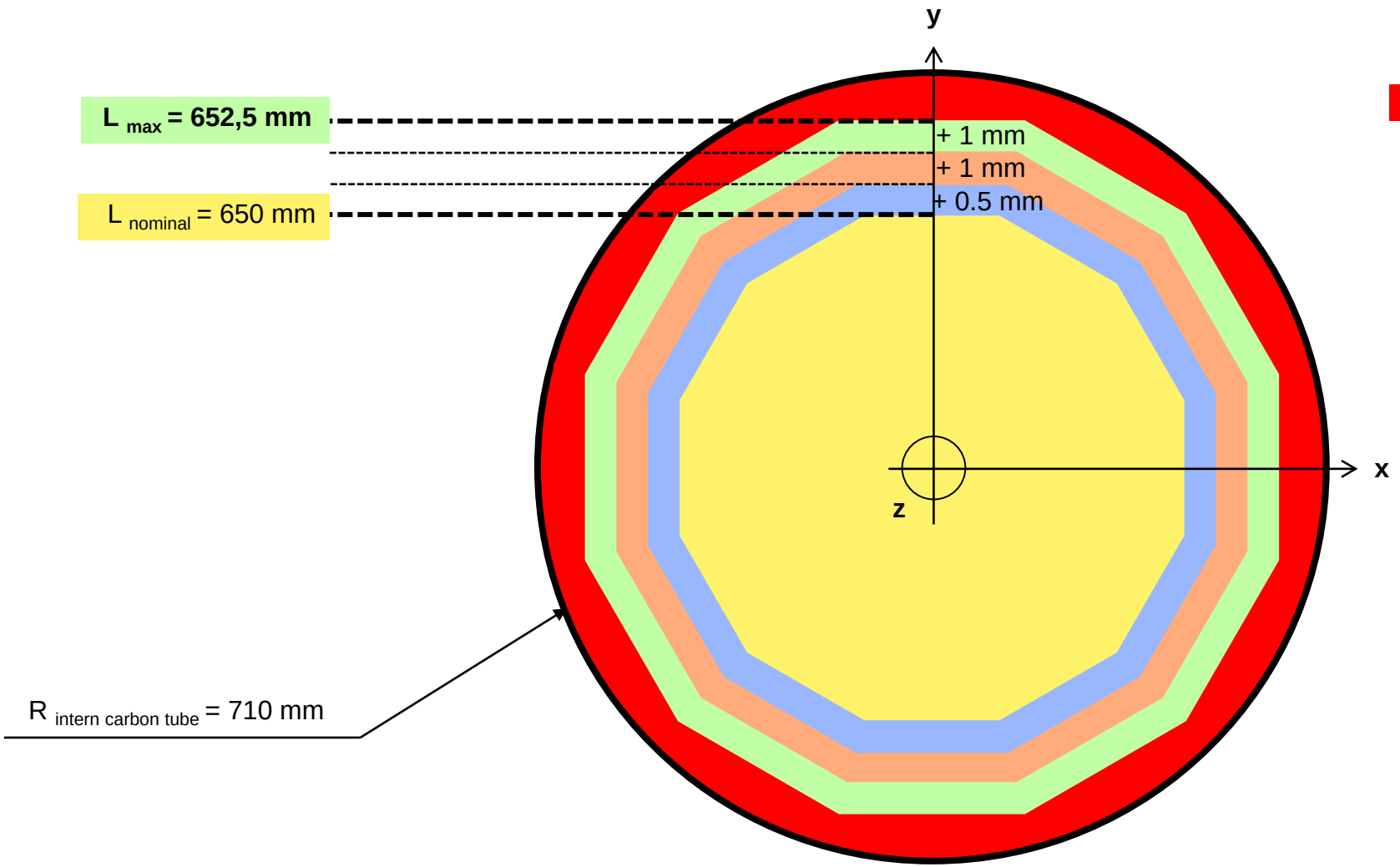
Backward Ecal / EEEMCal

Triple I Engineering Meeting Update (03/08/2026)

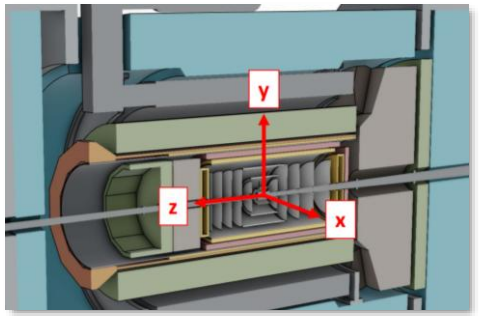
Julien Bettane

Clearances (slide from FDR)



31 mm < Clearance < 57,5 mm

Clearance required for services from inner detectors



Nominal dimension

Machining dimension

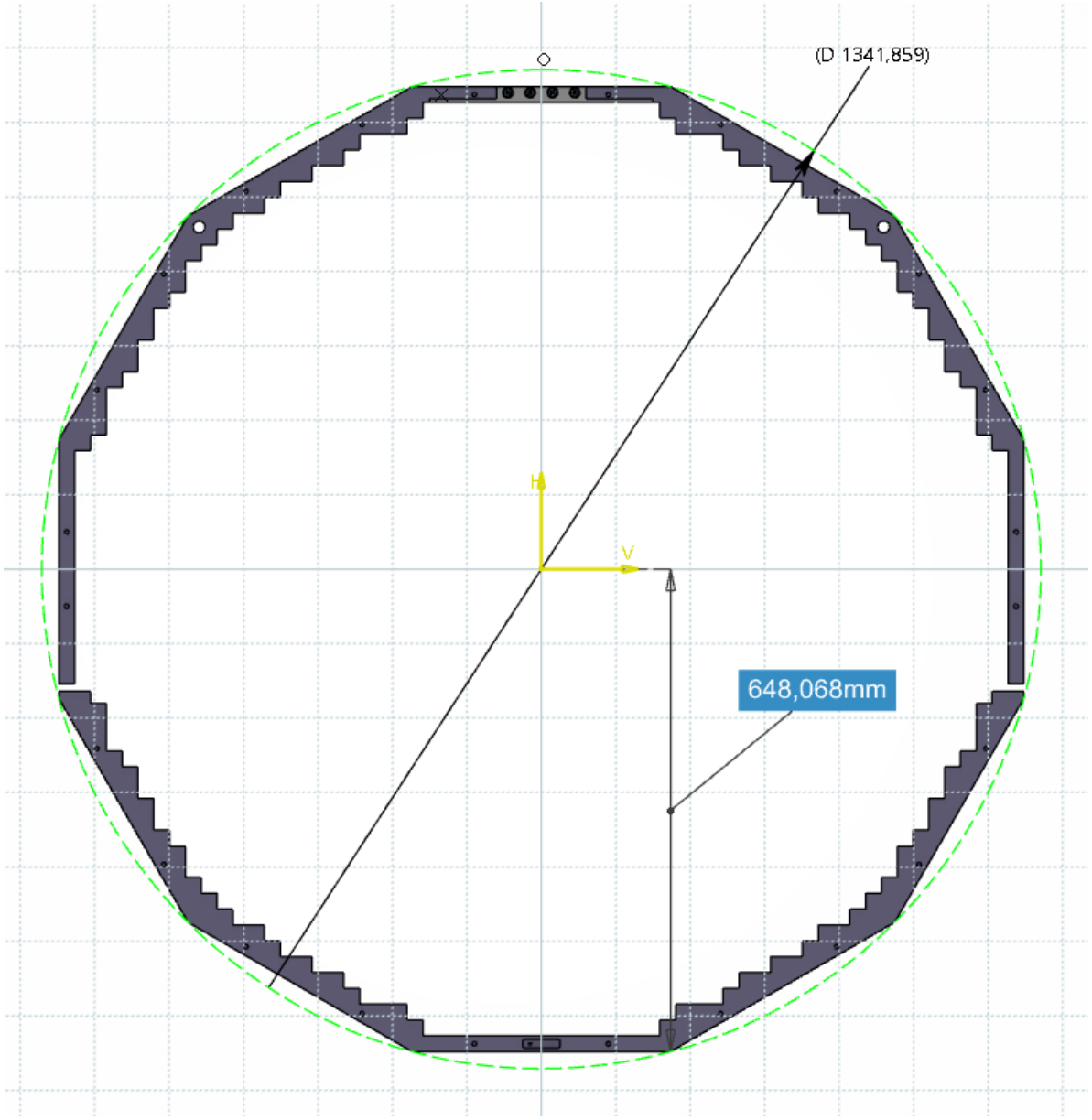
Assembled dimension

Deflection dimension

Clearance

Mechanical and integration constraints: detector envelope (clearances, carbon tube [x,y])

Clearances (new design)



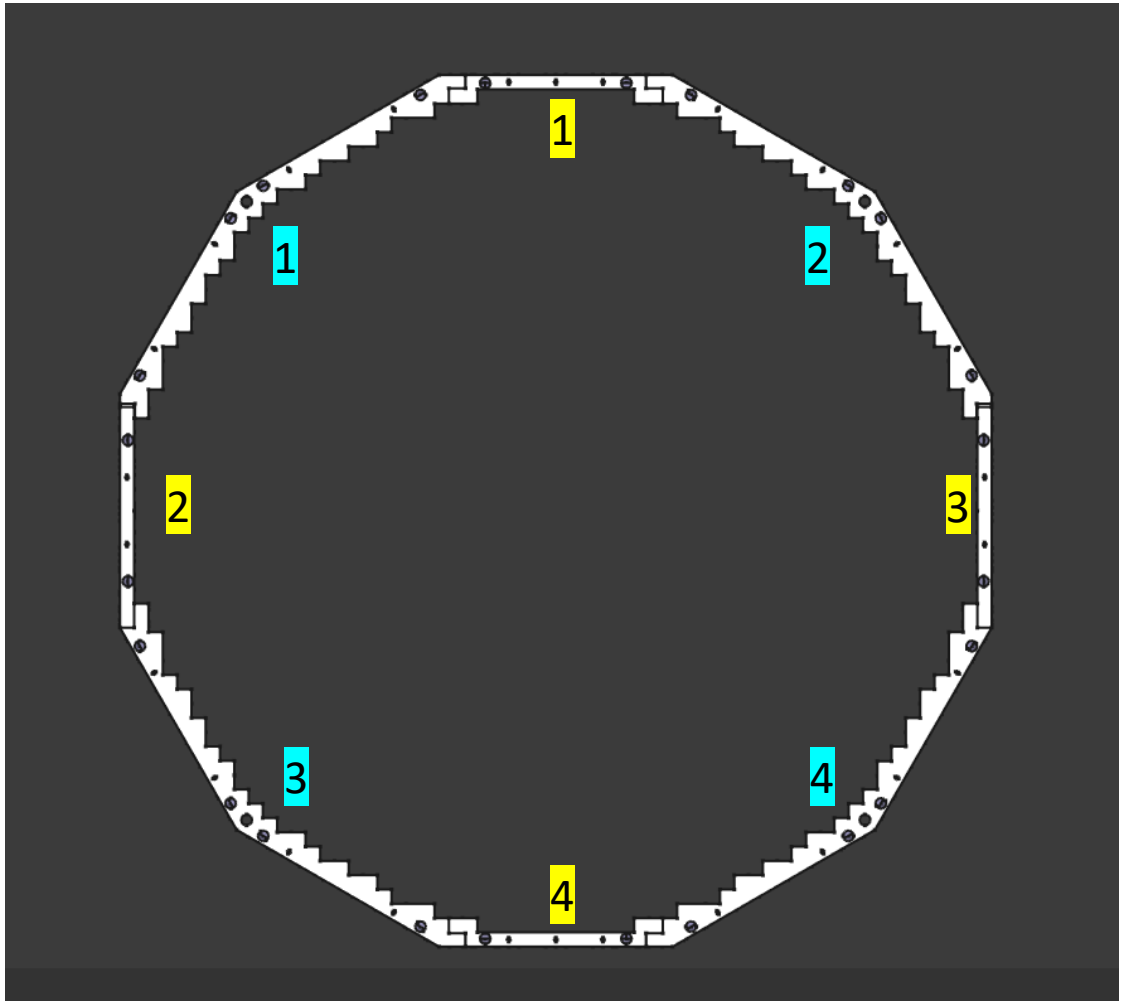
❑ Design

- D= 648 mm

❑ Current work

- Make a mechanical prototype
- Find a company
- Perform final FEA
- Validate the deflection calculated

New design



❑ Design

- D= 648 mm

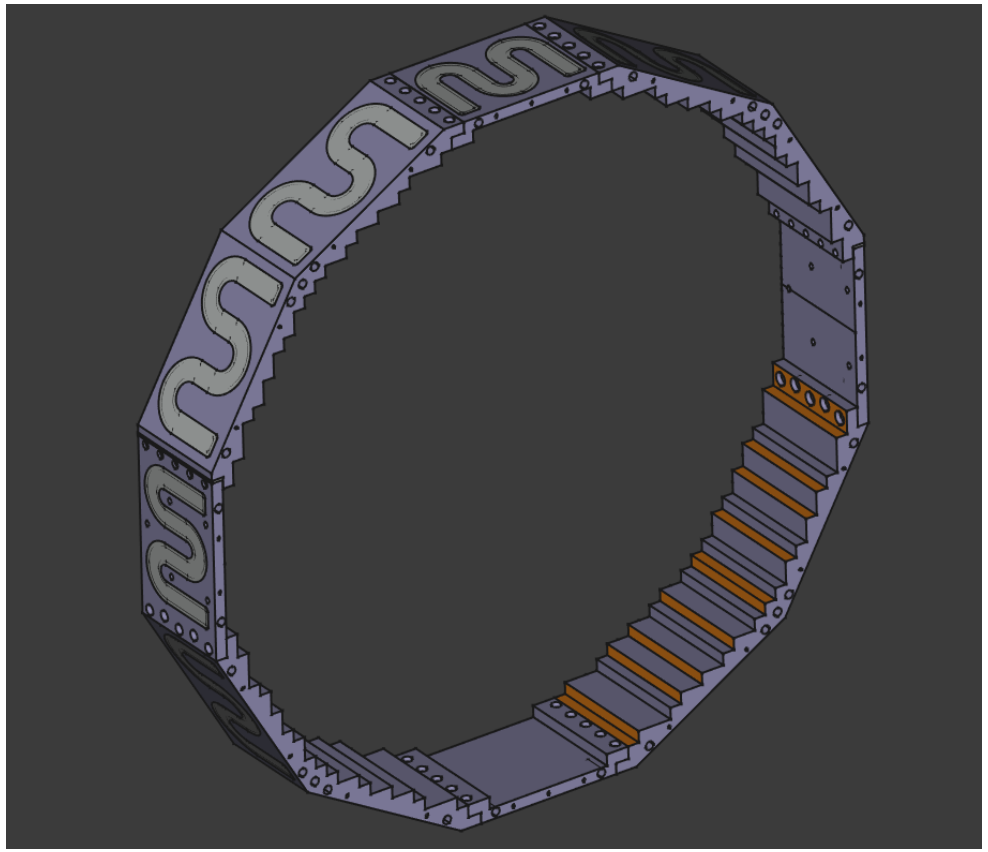
❑ Difficulty

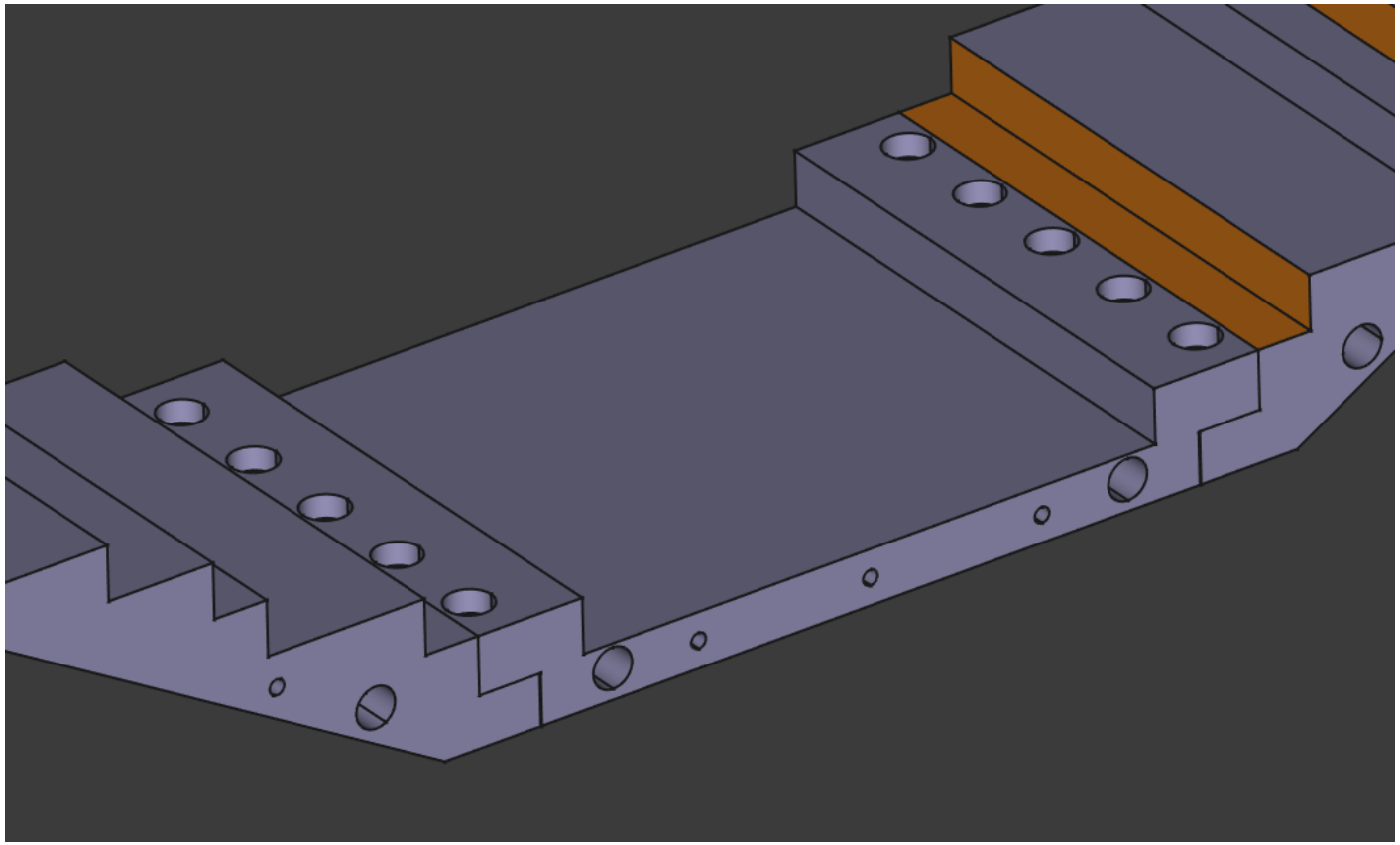
- Really hard to find a company to machine the structure

❑ Modification

- 8 parts
- 4 small simple plates
- 4 complex parts → smaller than the previous design

New design





Bottom plate