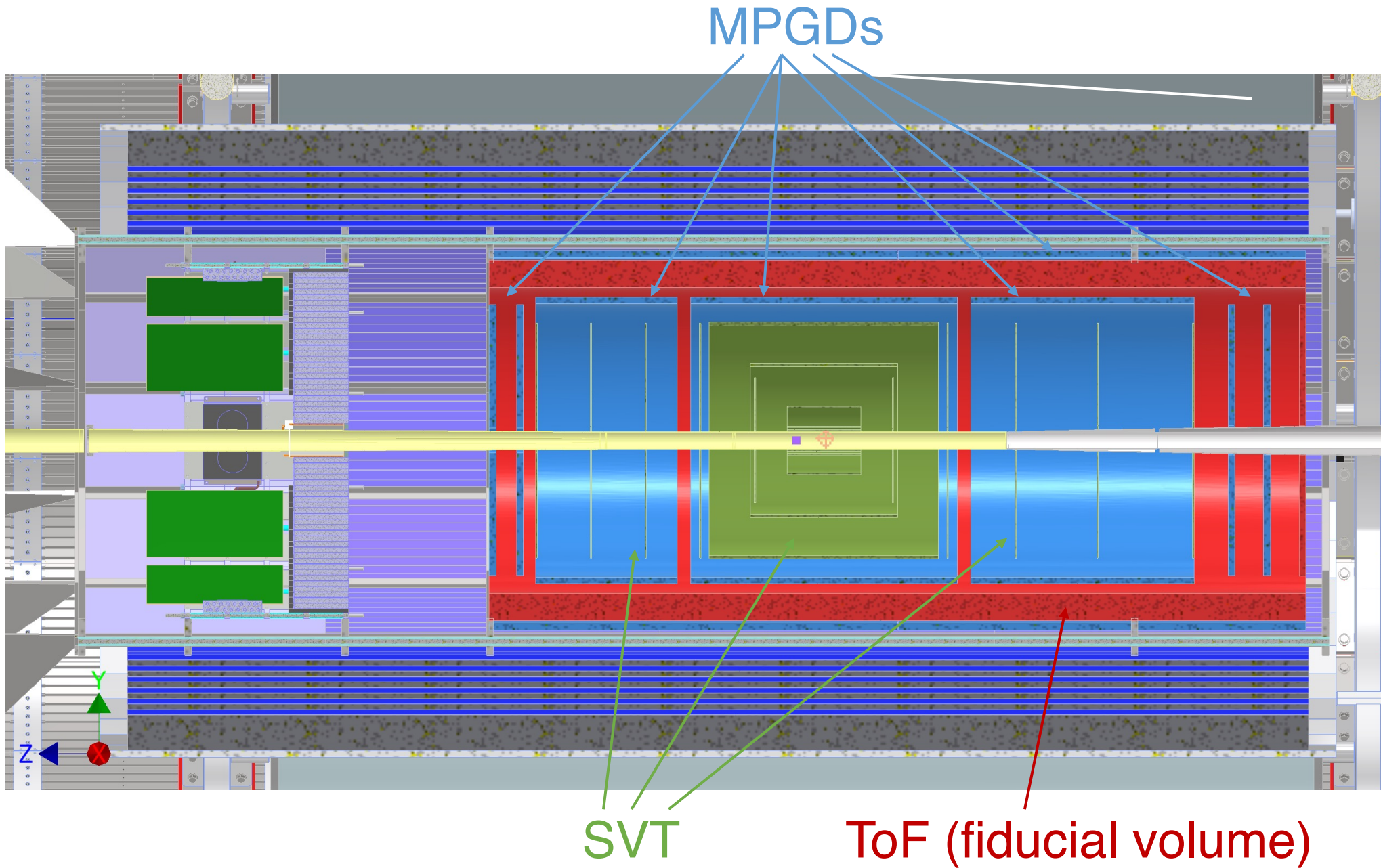
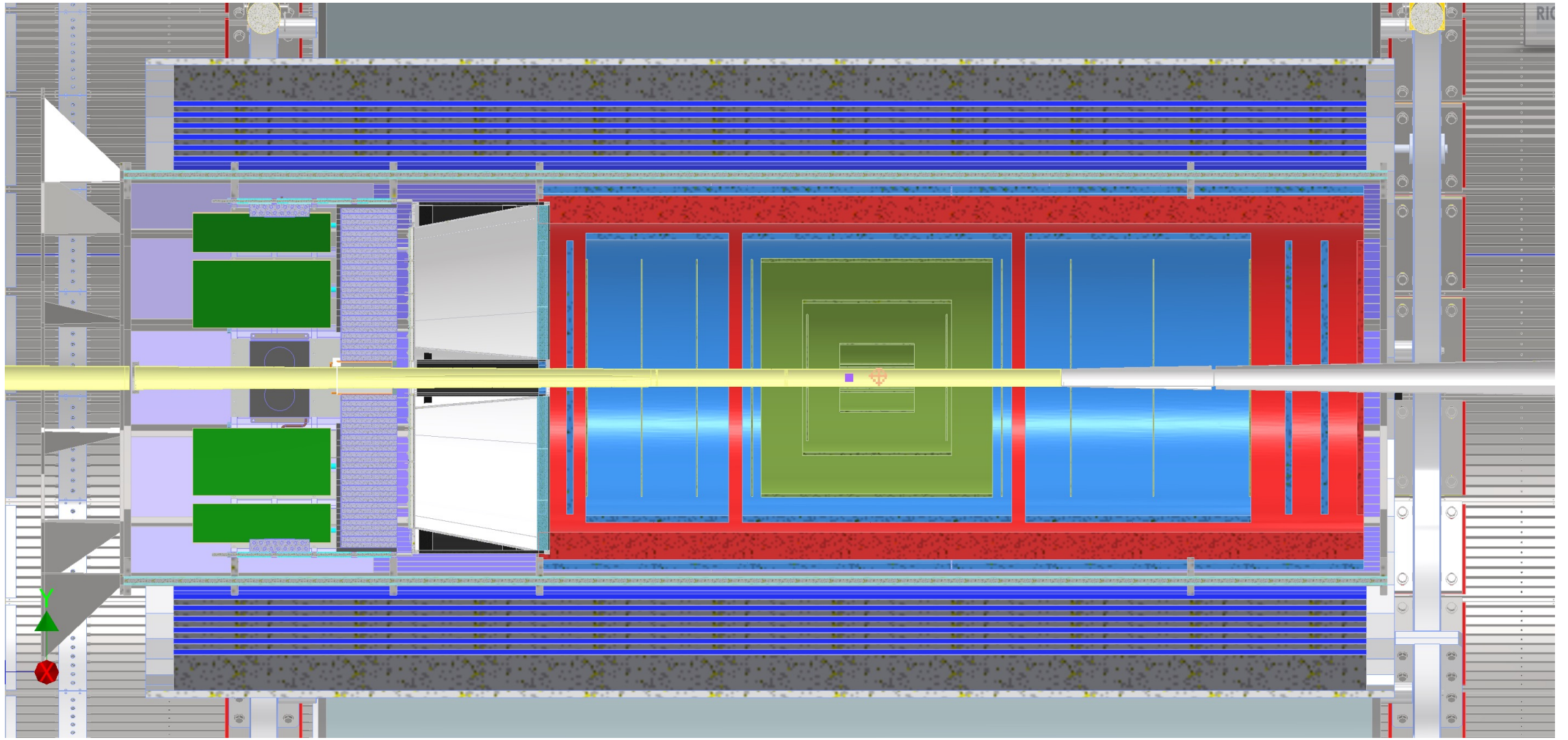


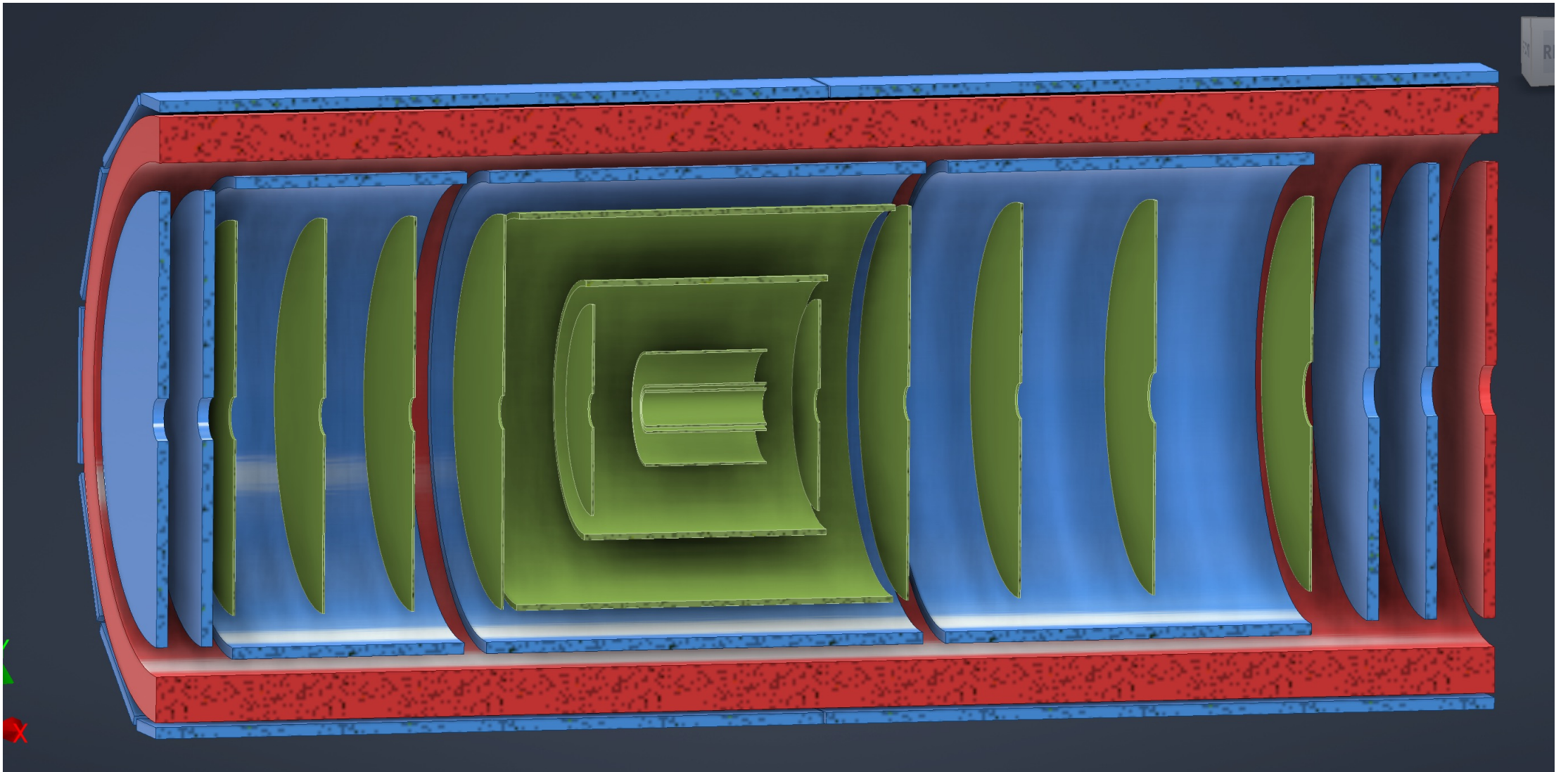
# Tracking Configuration Update

Work by many: Elke, Ernst, Matt, Roland, Rolf, ...

- Past ePIC tracking subsystem changes in a nutshell:
  - SVT barrel redone to achieve YR resolutions,
  - SVT forward disk array reconfigured to achieve YR resolutions,
  - SVT backward disk array extended to increase acceptance and optimize resolutions,
  - Innermost imaging layer of the BEMC adds a track point behind the DIRC
- Timely to converge on an MPGD configuration. Its primary roles are to:
  - Provide additional fast points for pattern recognition,
  - Aid tracking into the PID subsystems,
- The MPGD configuration concept discussed here builds on the discussion of two possibilities past May 11<sup>th</sup> – c.f. <https://indico.bnl.gov/event/19481/> – and factors in constraints and further considerations. Its main characteristics include a barrel split by backward, central, and forward acceptance regions and disks that can form tracklets (not just points). Next slides present a walk-through.
- The ToF and SVT subsystems are unchanged, except for the two most backward disks. Those are moved inwards by several cm to accommodate the added MPGD disks.
- The goal is a finalized implementation for the July simulation campaign.



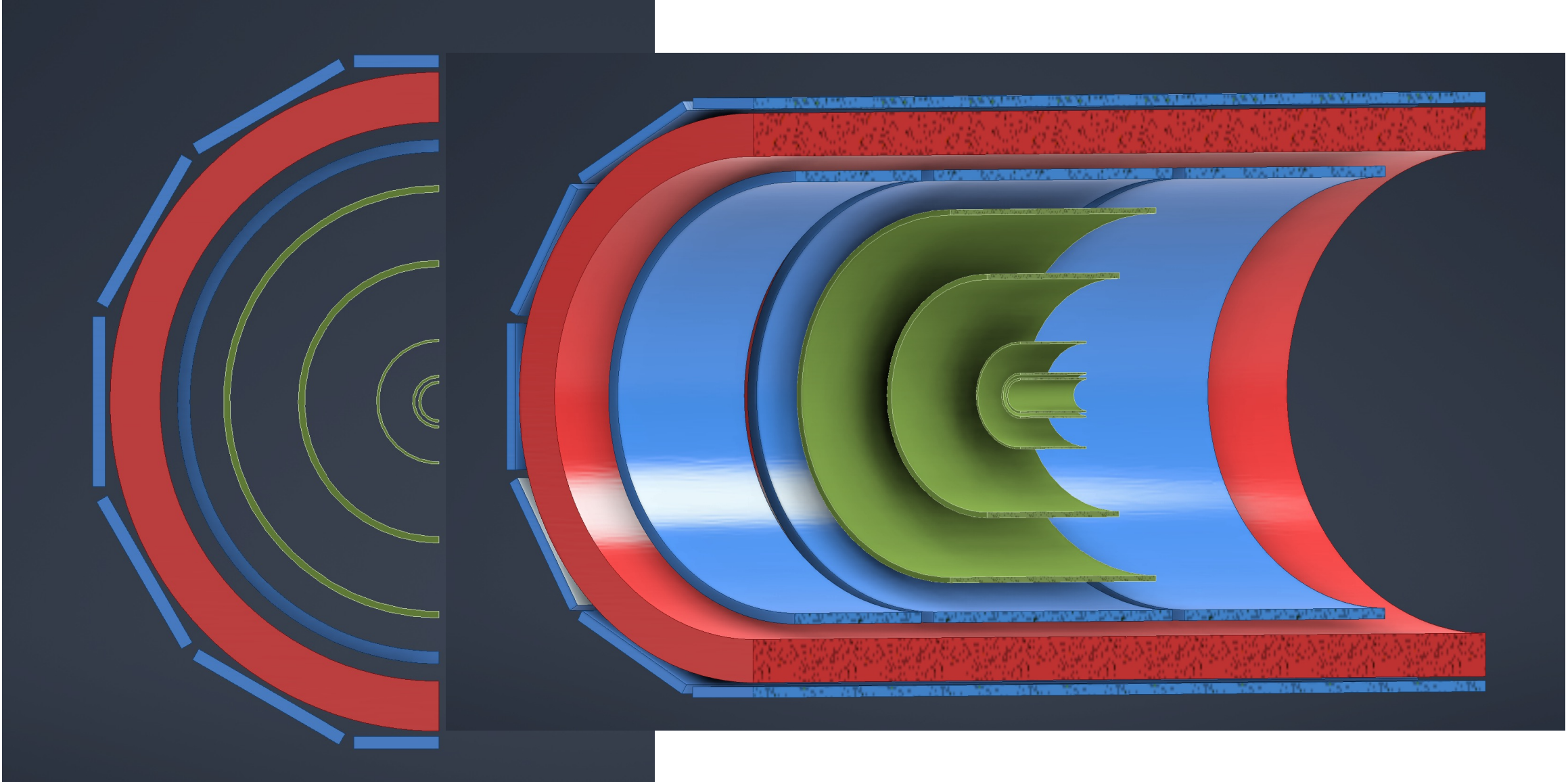


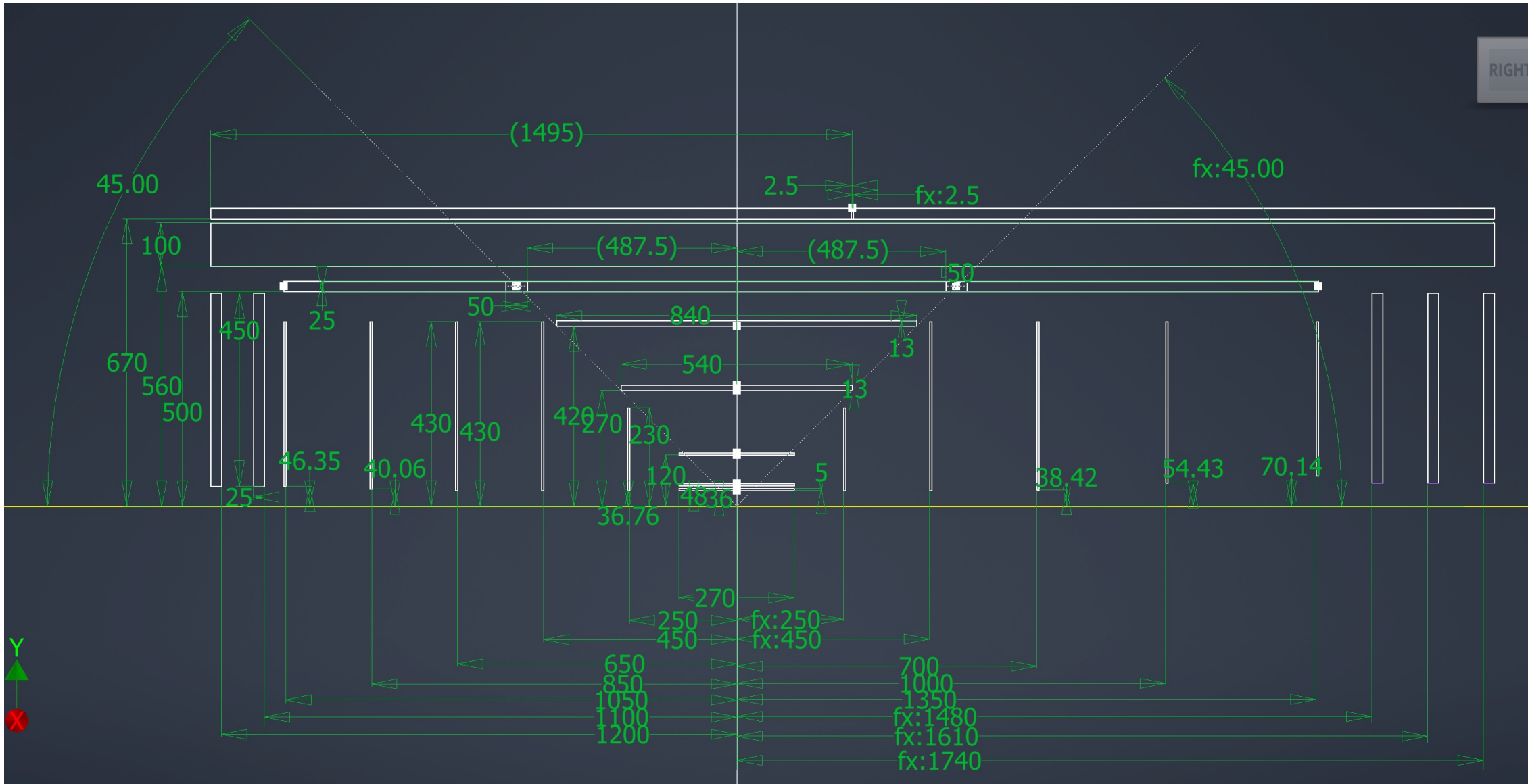


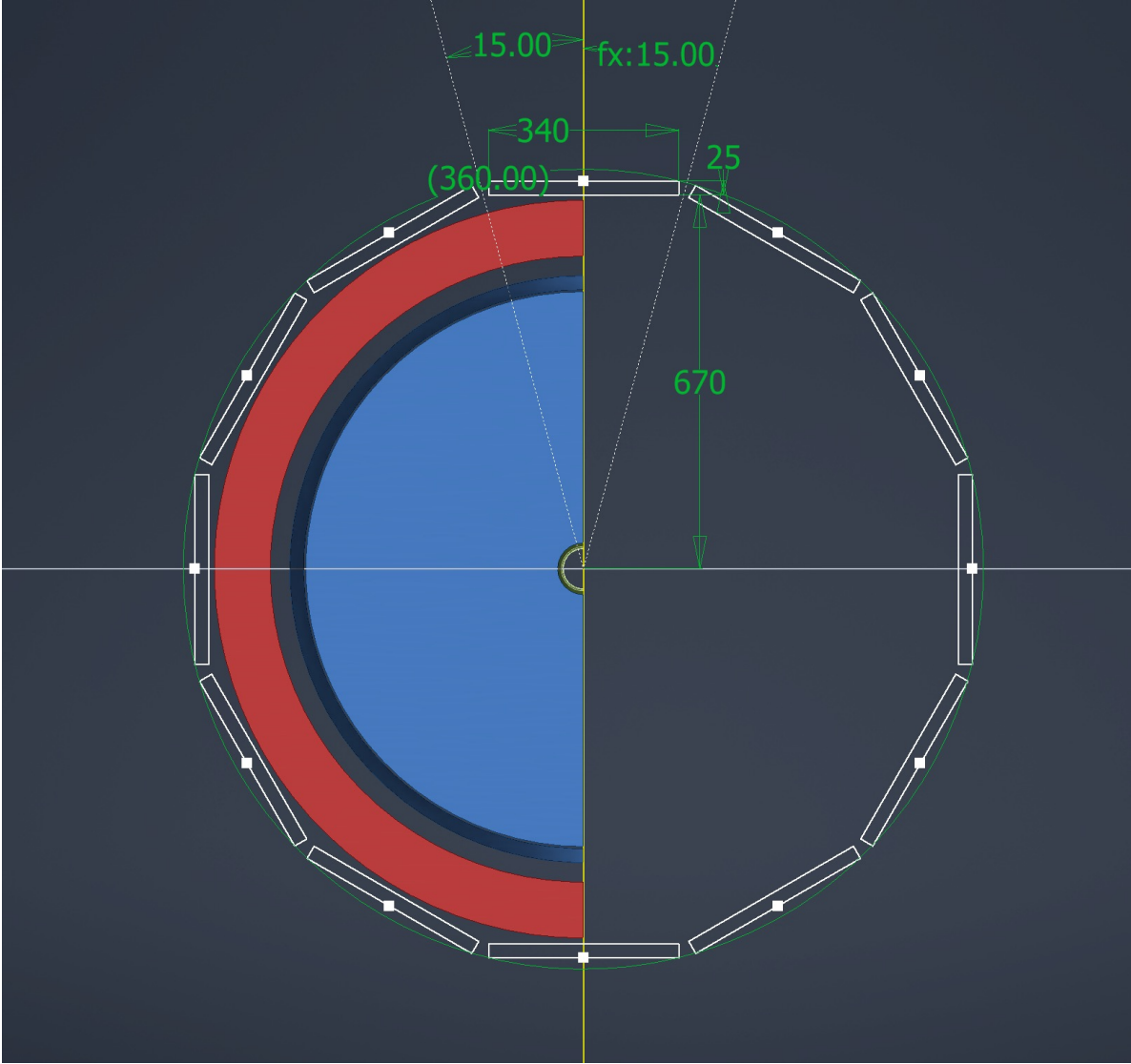
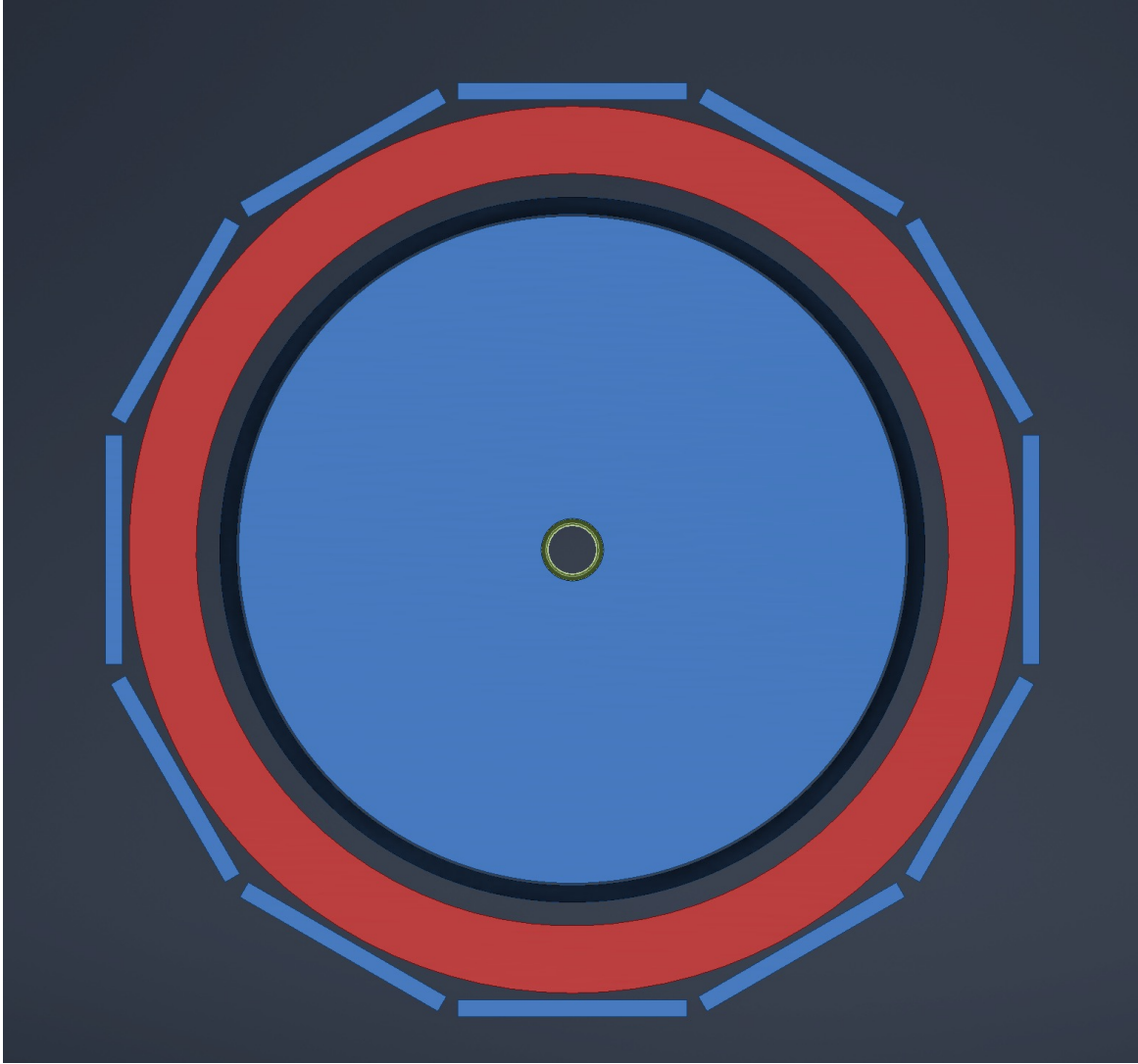
SVT

MPGDs

ToF (fiducial volume)

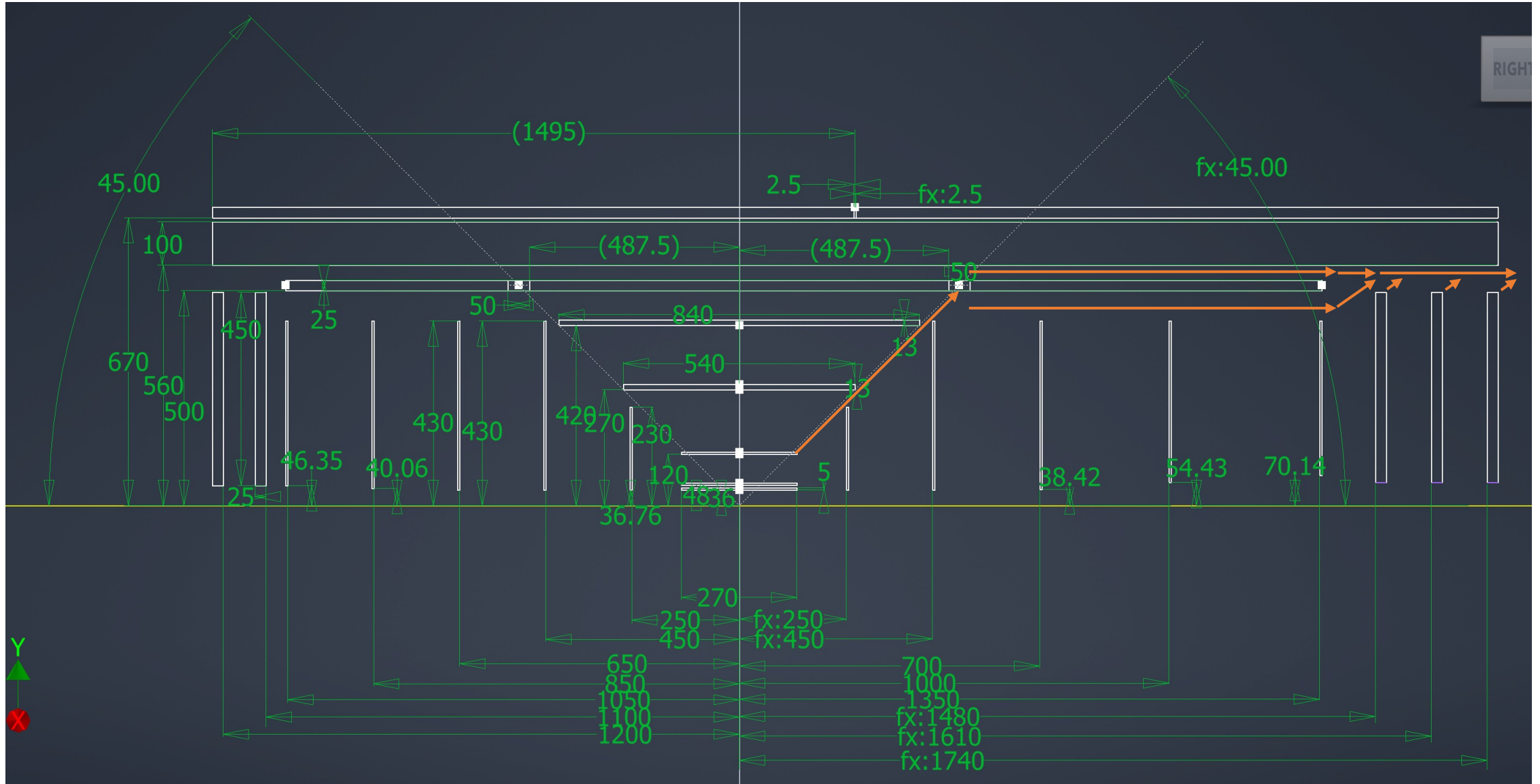








# Service routing (shown only for the hadron-going direction):



- Next steps:
  - Finalize envelopes of pfRICH and backward tracker – ongoing,
  - Service estimates for MPGDs – DSC,
  - Geometry implementation in simulations – ongoing,
  - Material maps –
  - ACTS –
  - Tests
- Goal: readiness for code-freeze first Monday in July and July simulation campaign.

- 
- Note: ongoing work – thank you Nicolas – to quantify angular and position resolutions into the PID subsystems in preparation for the upcoming review precedes this geometry revision and make use of the Brycecanyon geometry (and truth seeding).