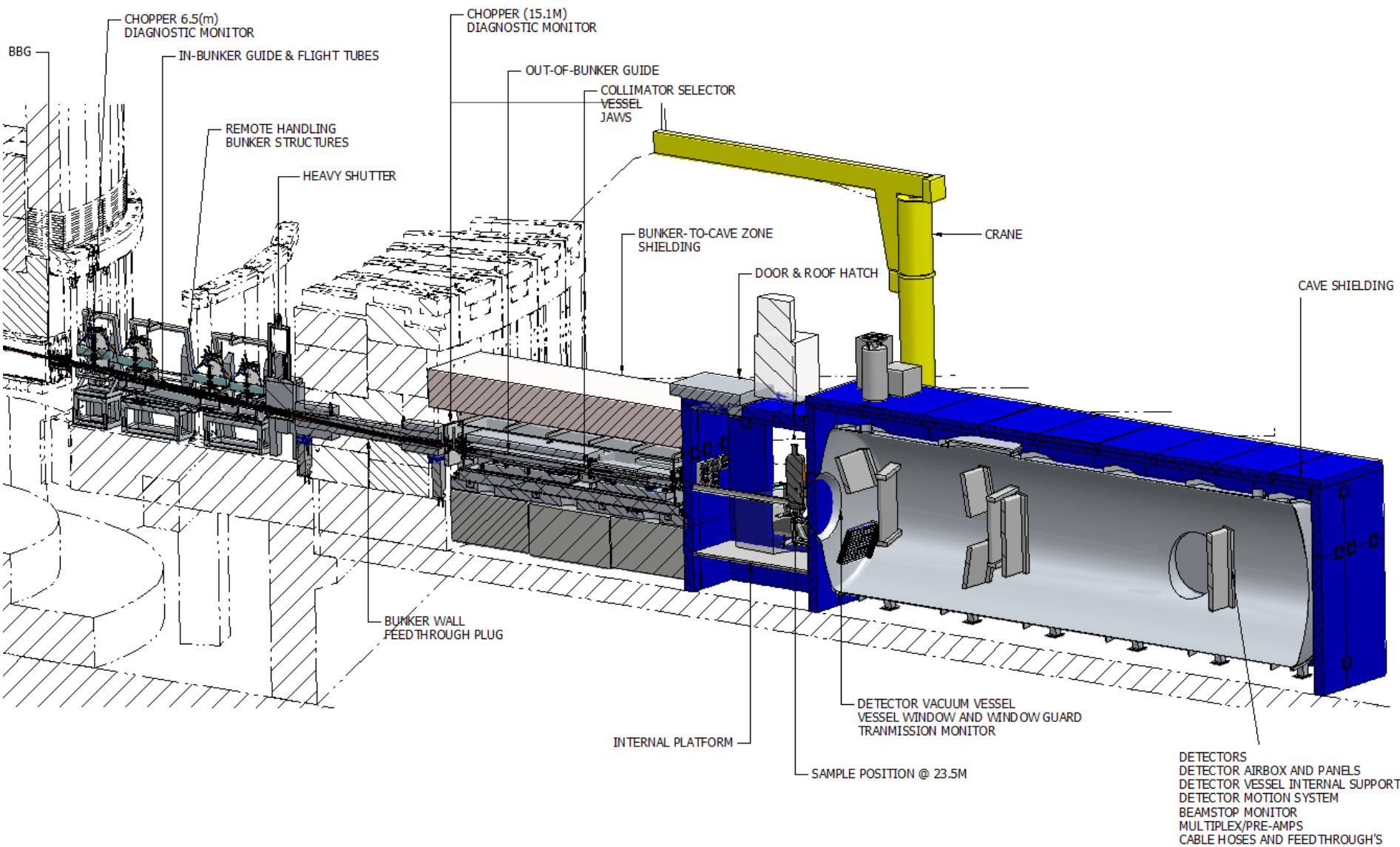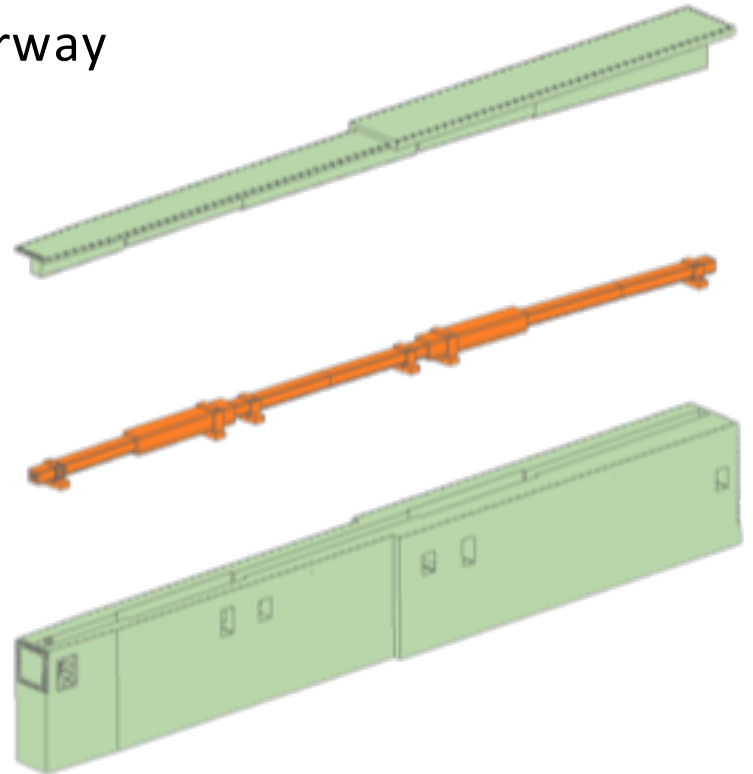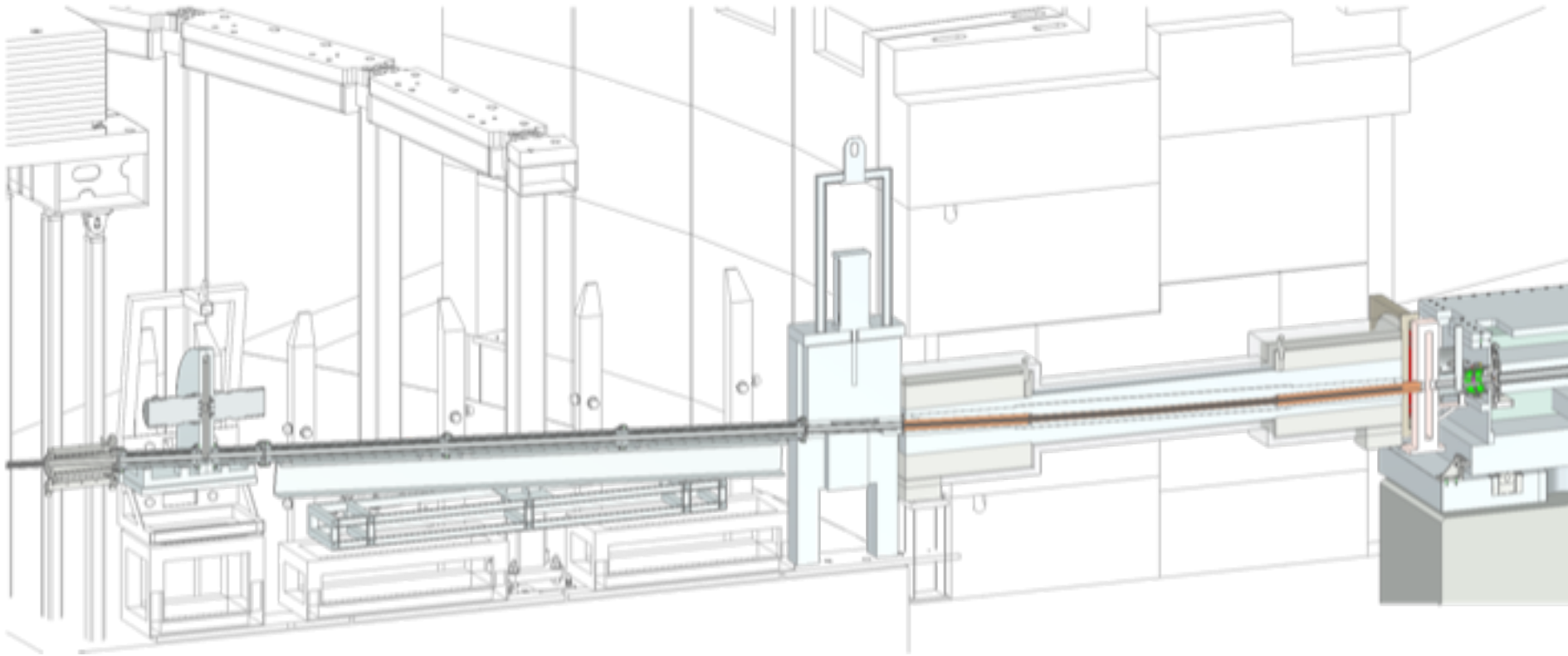# Instrument Class Update

ESS-Loki

Loki Overview

NBOA Status

- Order placed
- Kick-off meeting with Swiss Neutronics & ESS completed
  - Included stakeholders from ESS target group
- Substrate thicknesses updated to suit manufacturing requirements of NBOA & NBPI
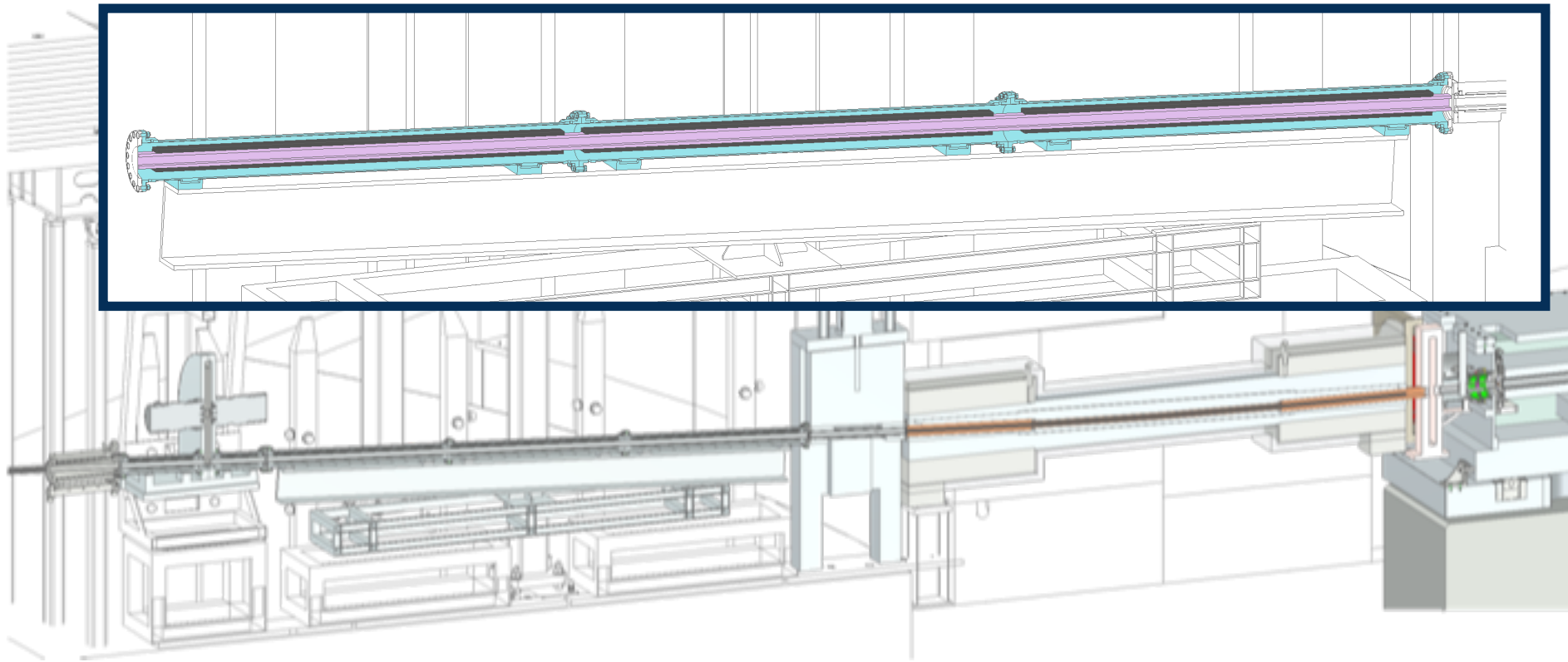- Design of alignment devices underway

In-Bunker Guide

- ISIS CDR completed last week
- Specification now being written
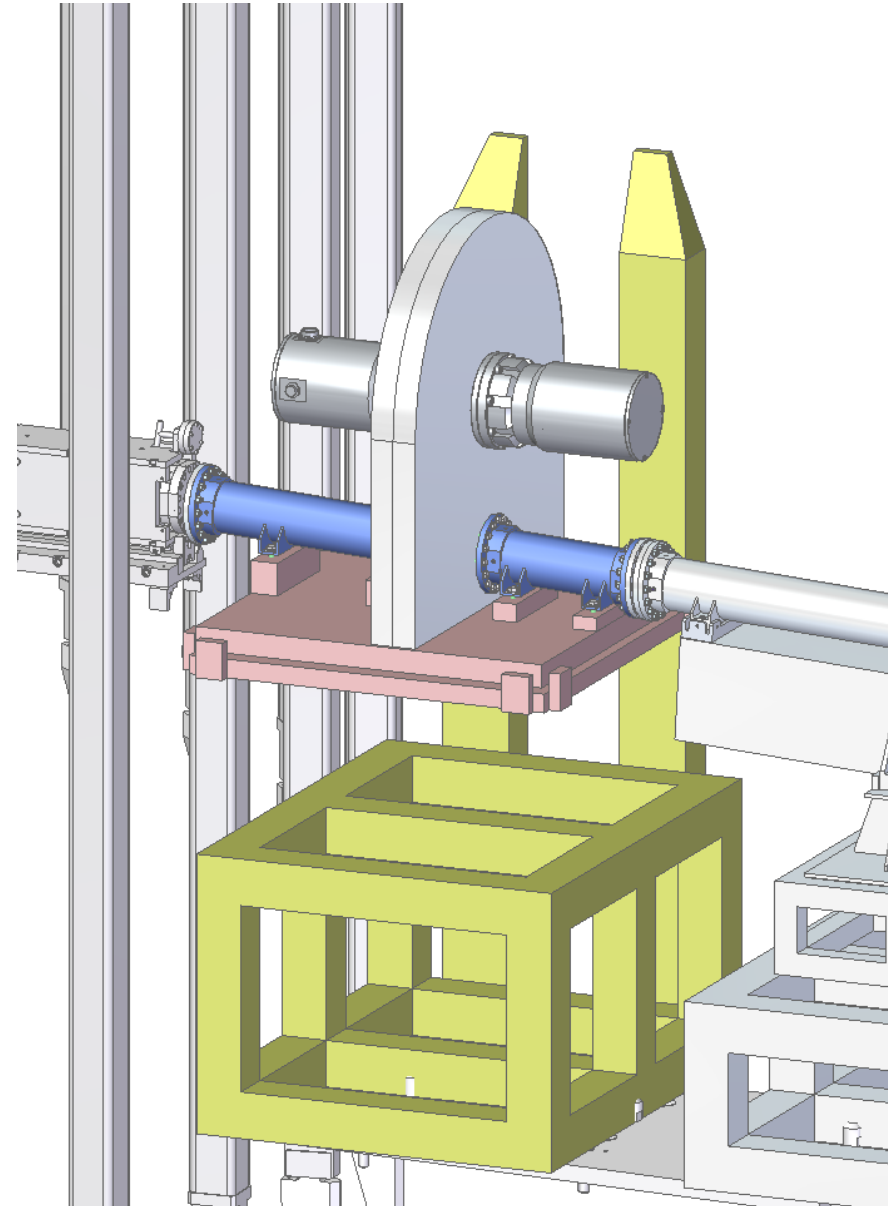- Tender before the end of the year (OJEU)
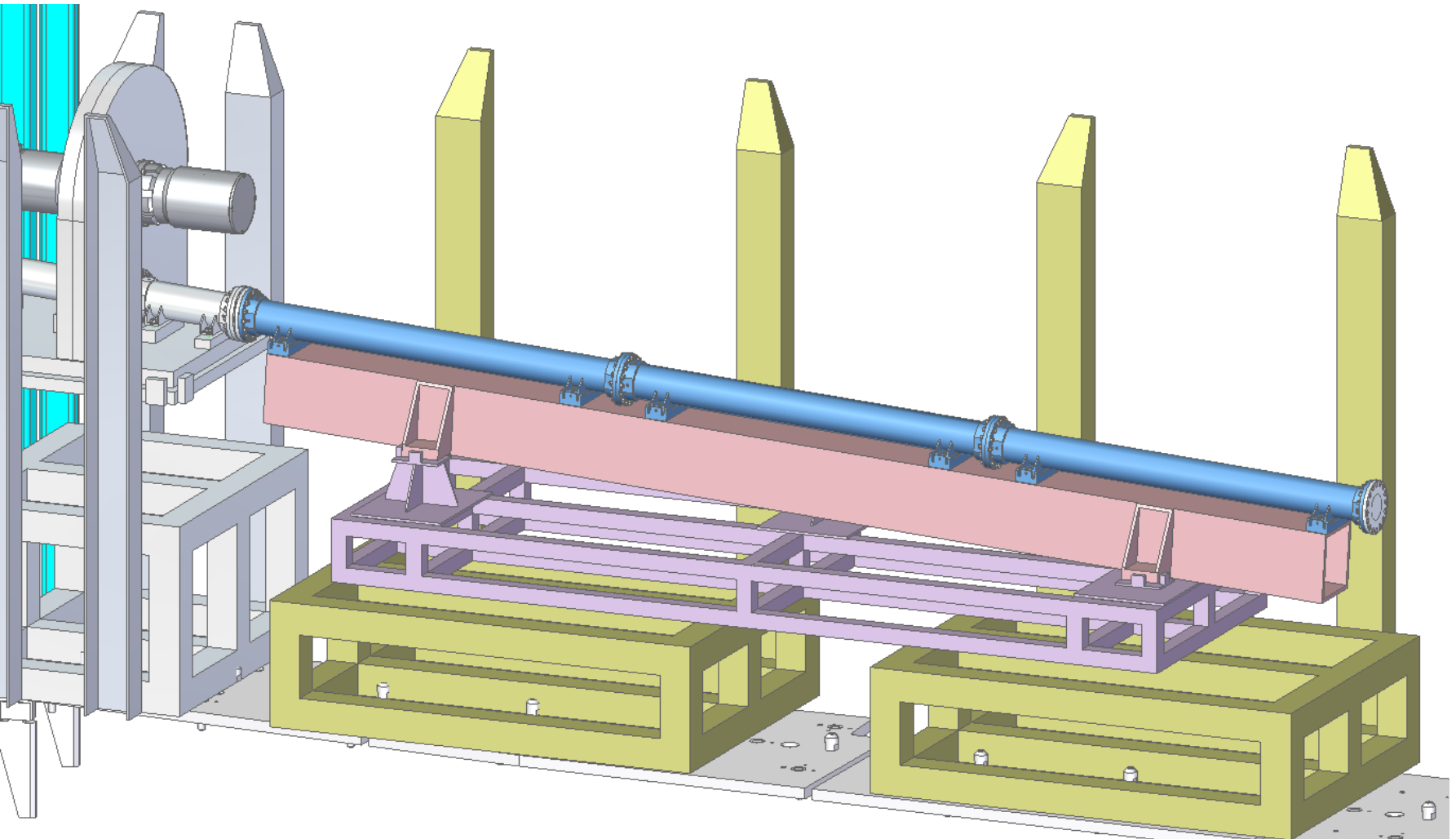
In-Bunker Guide

- Aluminium vacuum tube, seals & windows
- Aluminium guide substrate
- Boron Shroud
- Alignment devices to be designed by guide supplier
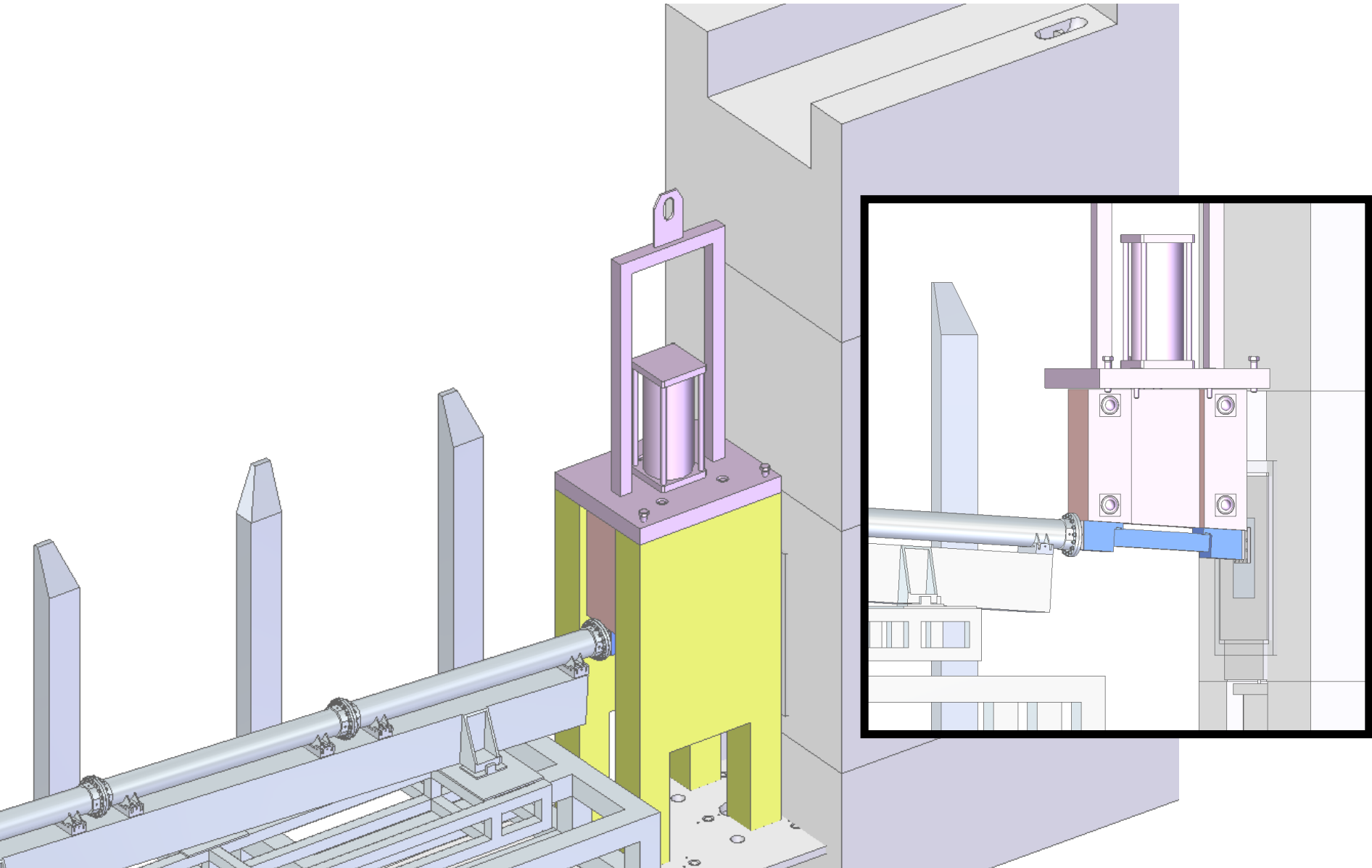 - Material requirements from ESS not clear

Section 3 Design Review
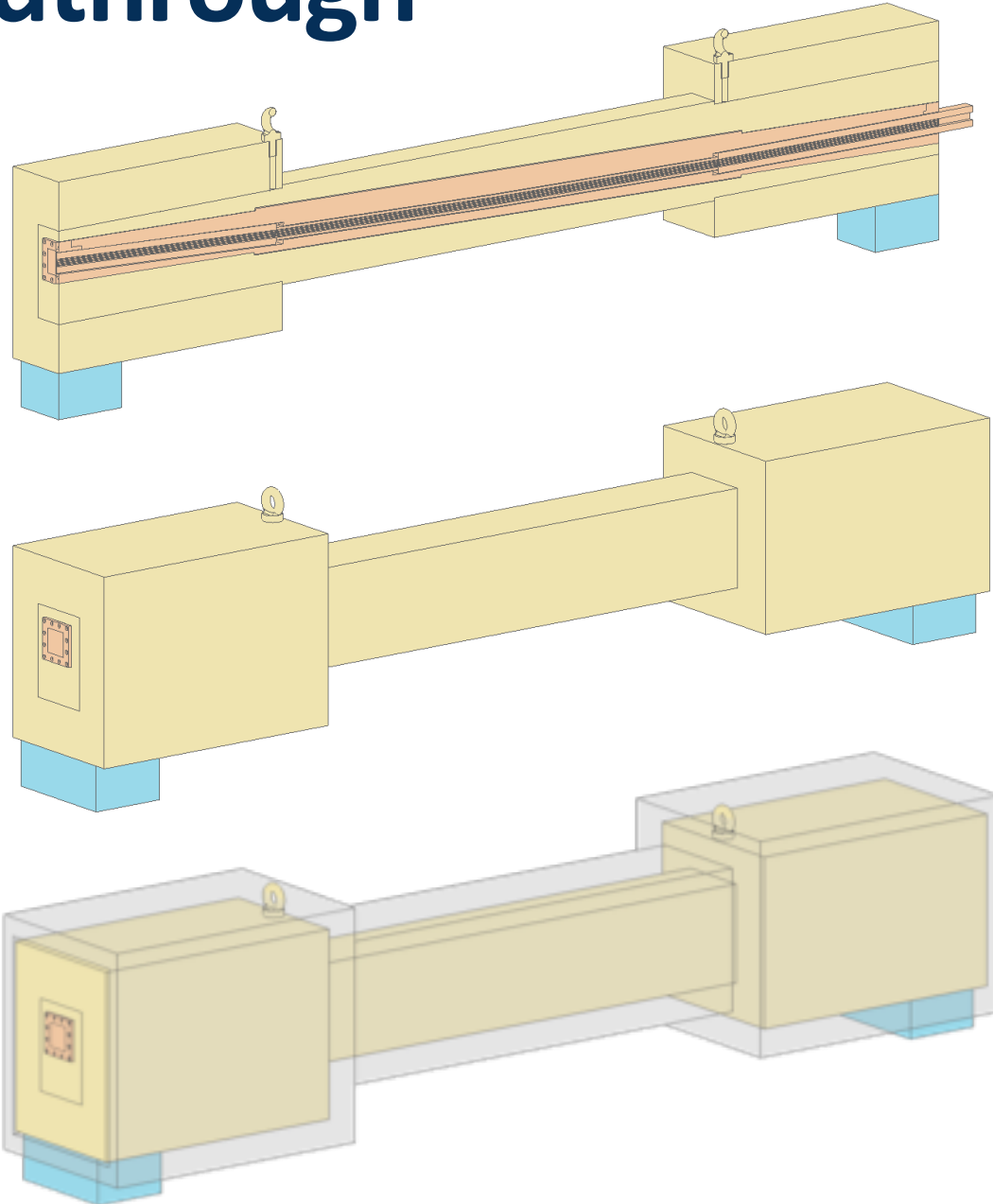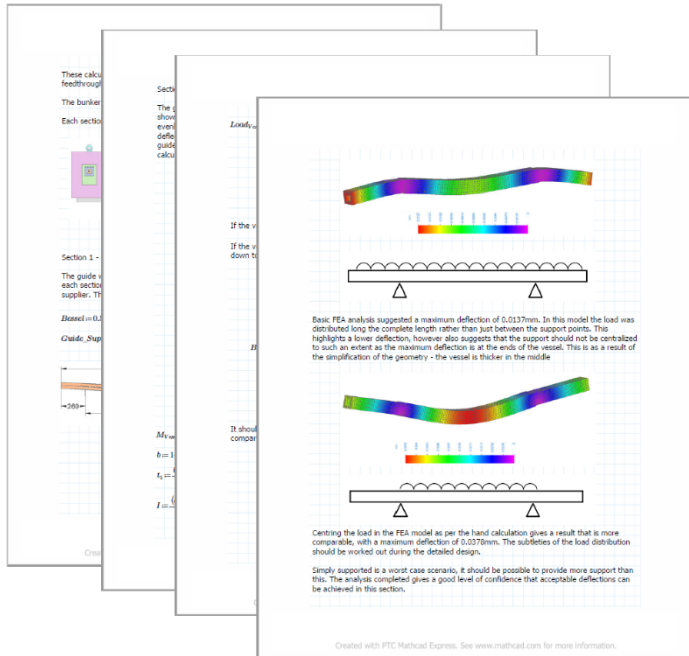
Section 4 Design Review

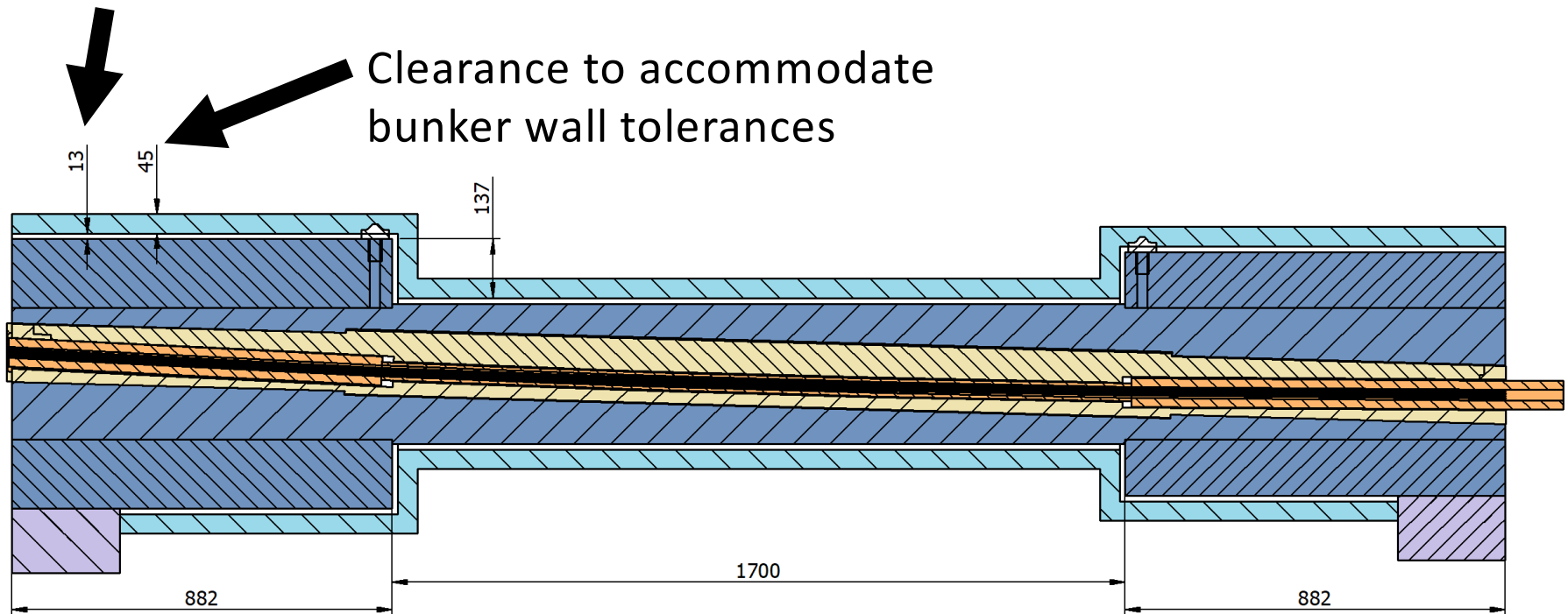# Section 5 (Heavy Shutter) Review

Feedthrough

- 5 channel bender
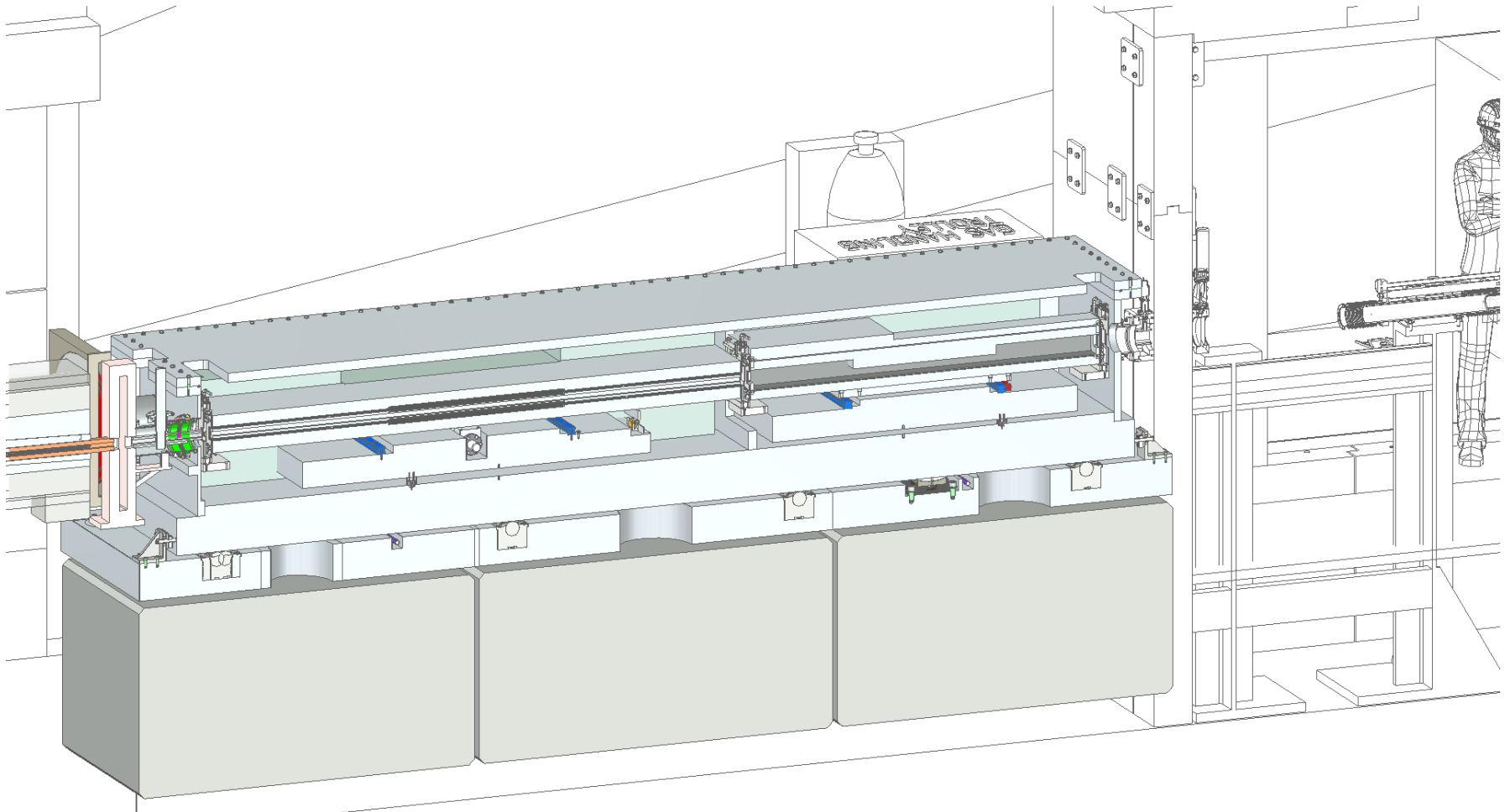- Guide and vessel to be tendered separately to the feedthrough plug

Feedthrough

- The packing/shimming concept proposed by ESS to fill the bunker wall tolerance clearance is not seen as a viable solution

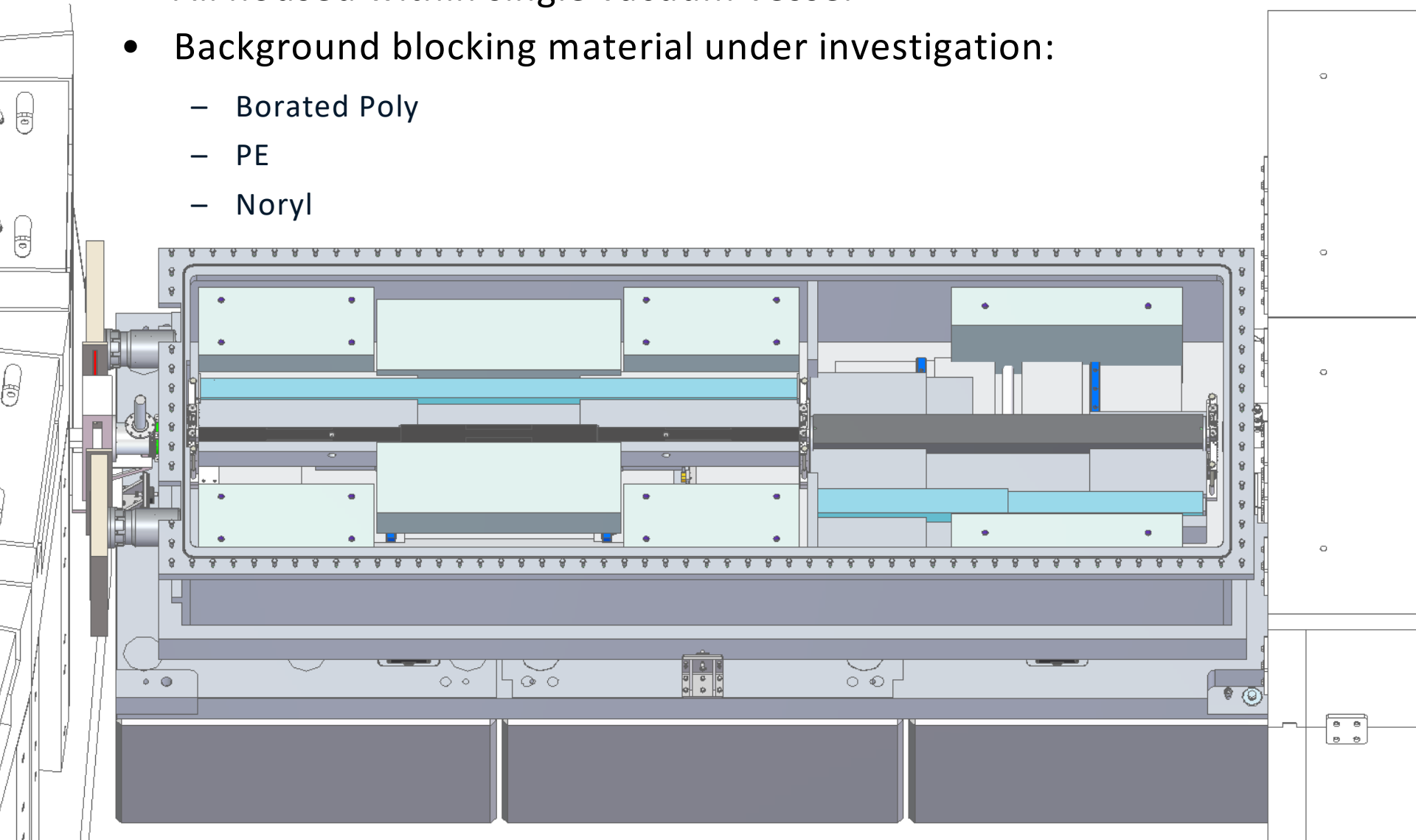
Functional clearance for alignment and installation

Clearance to accommodate bunker wall tolerances

Bunker to Cave

- ISIS CDR completed 2 weeks ago
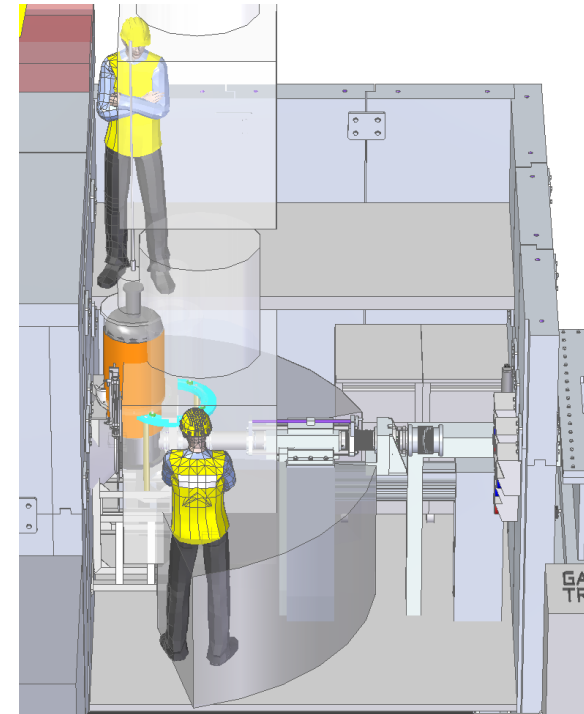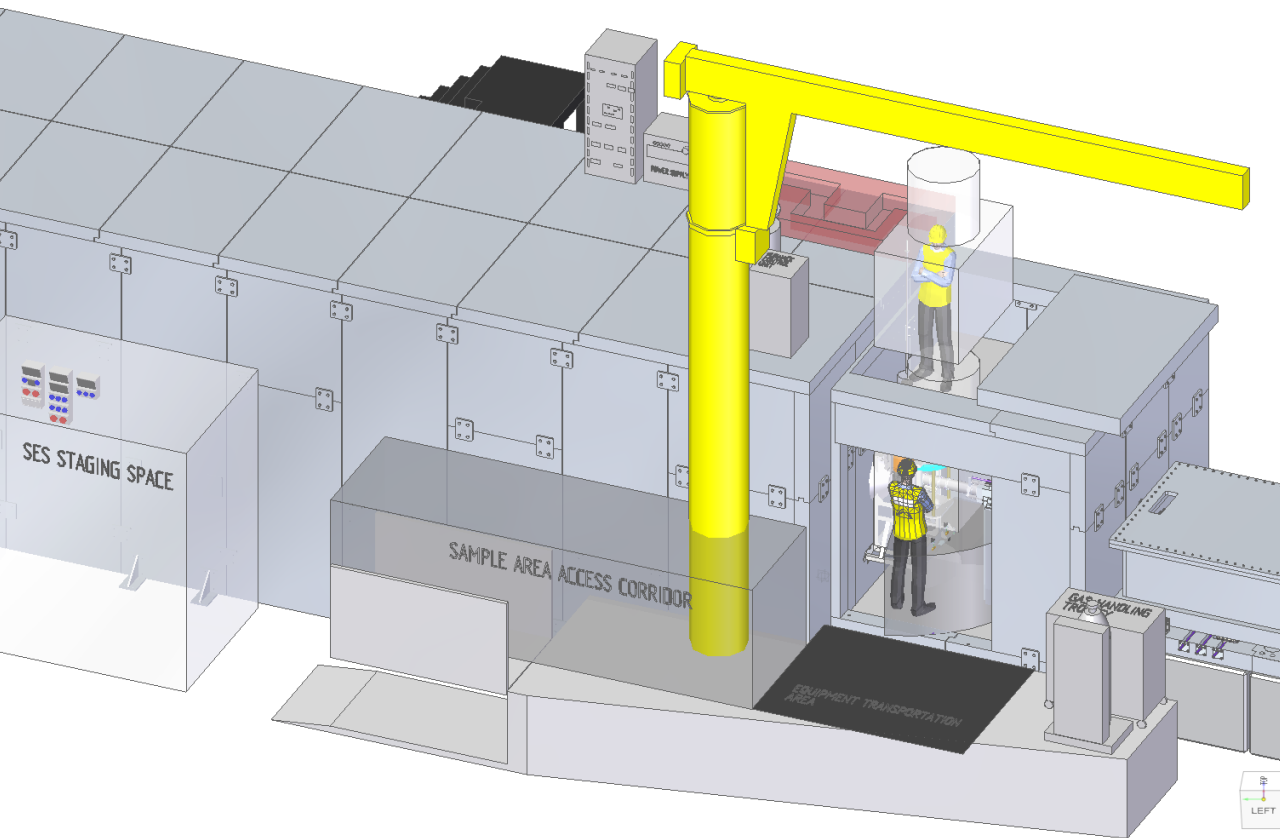- Vessel tender planned next year

Bunker to Cave

- All housed within single vacuum vessel
- Background blocking material under investigation:
  - Borated Poly
  - PE
  - Noryl

Sample Area

- Investigation into sample area space started
  - Sample environment
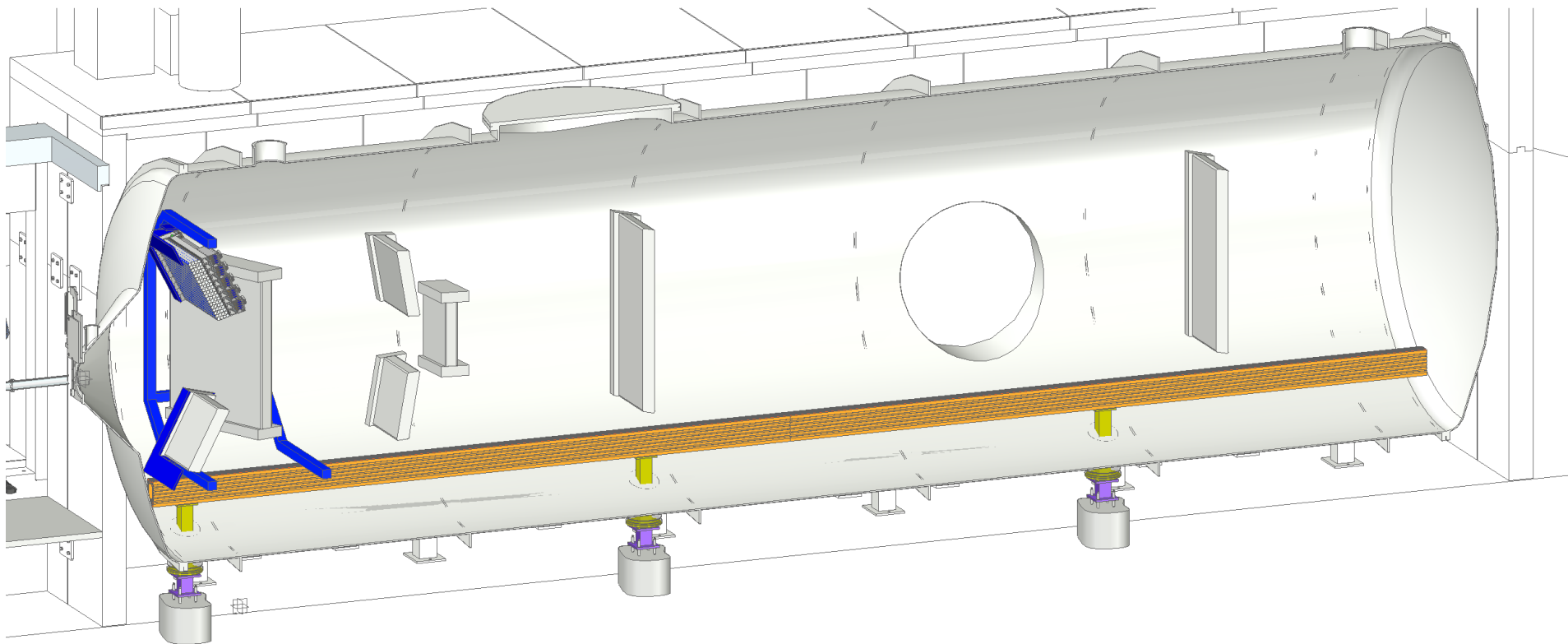 - Staging areas
  - Service panels
  - Personnel access

Loki Overview

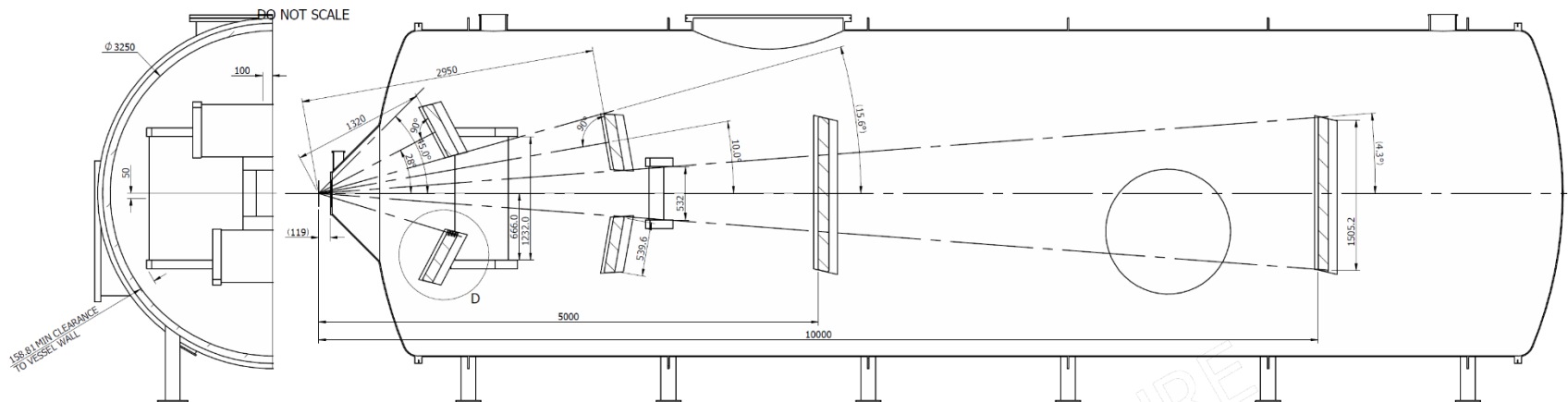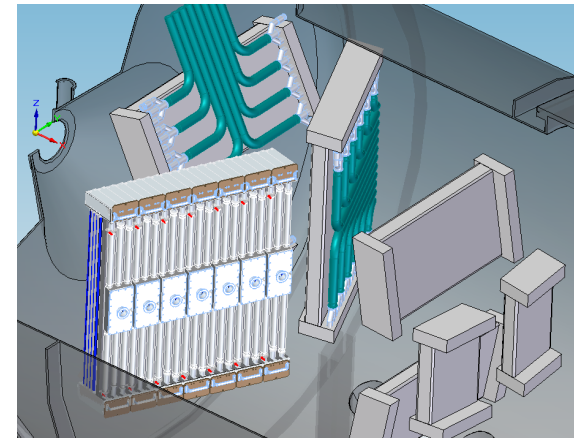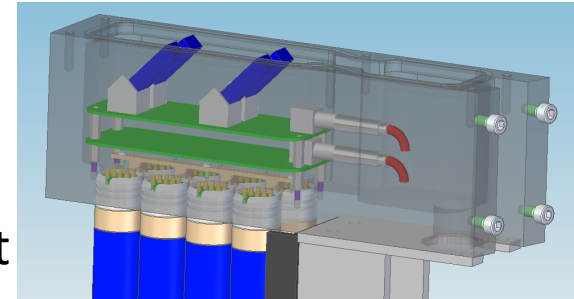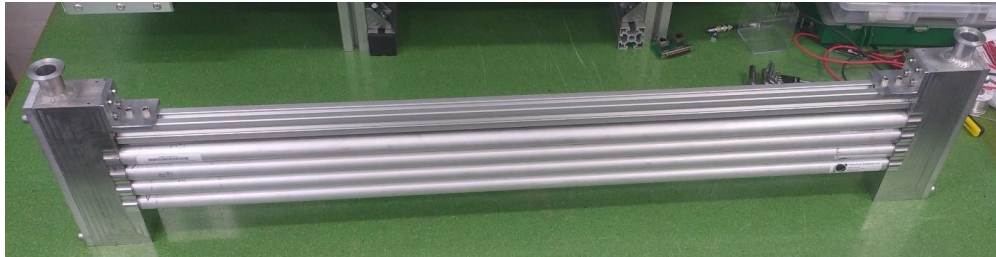- Adjustable length snout concept work started

Detector System

- Detector technology now chose – Straw Tubes
    - Final development phase now underway
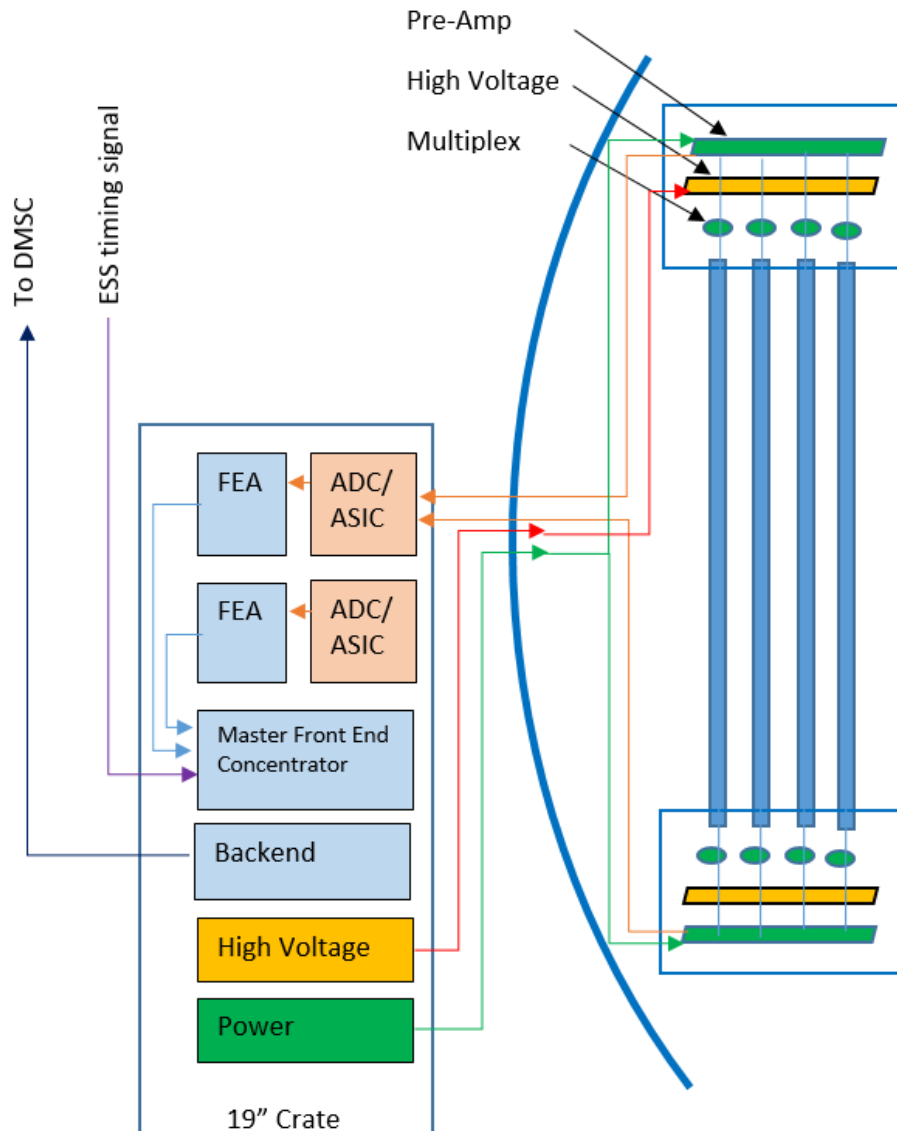   - Detector vessel to be tendered at the start of the new year (OJEU)

Detector System

- Array Layout finalized
- Air-box design finalization
- Electronics & DMSC interface in development
- Motion system under development
- Cable management designed

Detector Data Chain

Loki Update

- Questions