



BEER

Instruments status

PRESENTED BY PREMEK BERAN & JOCHEN FENSKE & GREGOR NOWAK

2021-10-18

BEER

General contract (TA) status



- Joined version of TA agreed around the last STAP meeting
- TA supported by IKRC in May 21
- TA endorsed by Council Jun 21
- [NPI TA signed in Jul 21](#)
- **Hereon TA signed October 14, 2021**

A lot of work has to be done in hurry.

We have to catch up the first 8.



BEER

NPI update

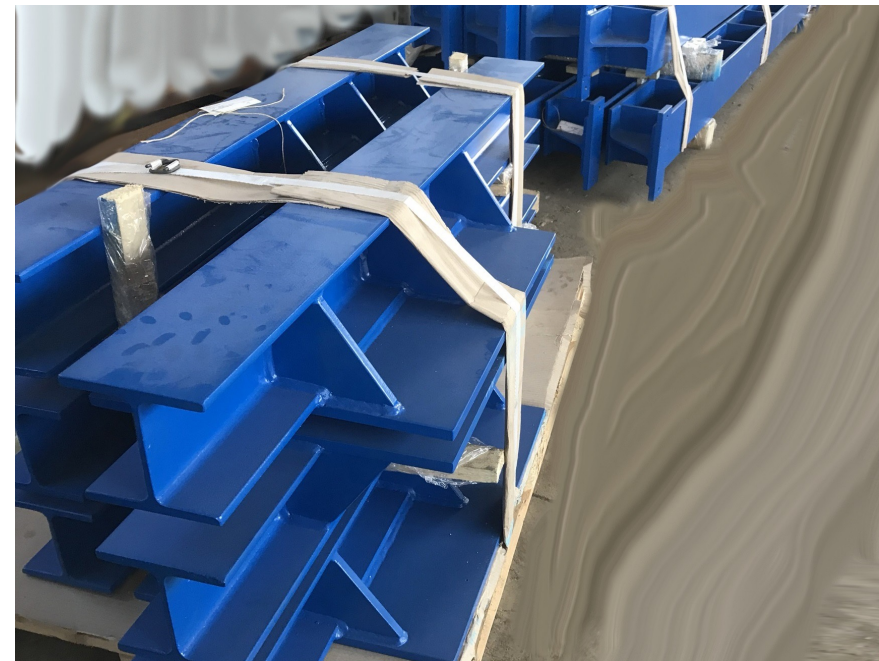
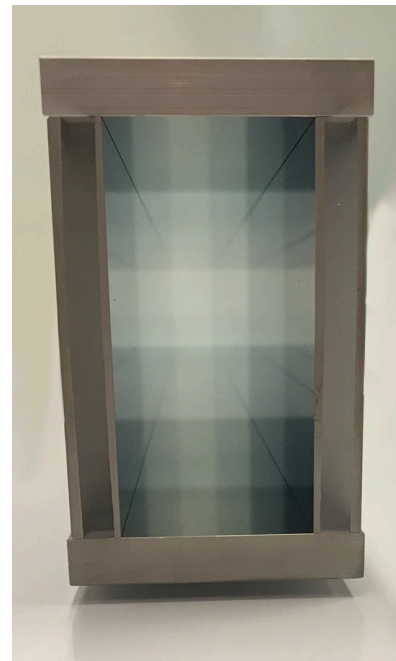
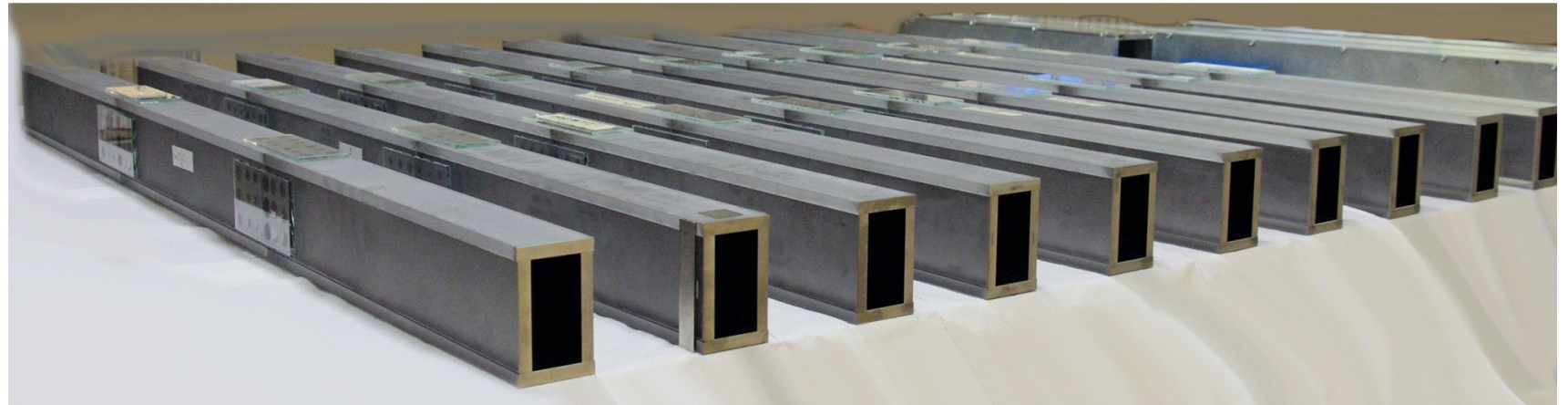


- NPI TA signed in Jul 21
- Out-of-bunker guide
 - Early manufacturing (pre-paid works) on truck (100% sputtered and 90% assembled)
 - Rest of the manufacturing also on truck (100% polished and ready for sputtering)
 - Guide support structure ordered after TA signature and ready for delivery
 - FAT for Section 2 (long transport section) planed November 23-24, 2021
 - Installation planed for May 21

BEER

NPI update

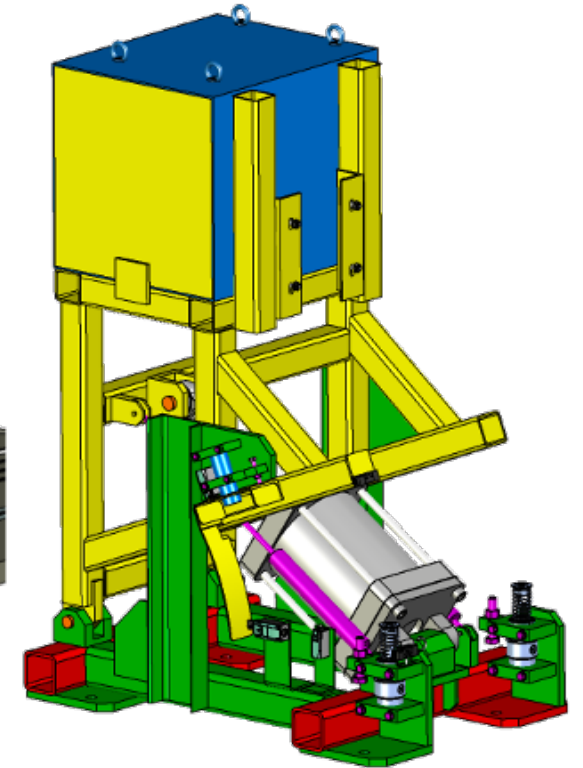
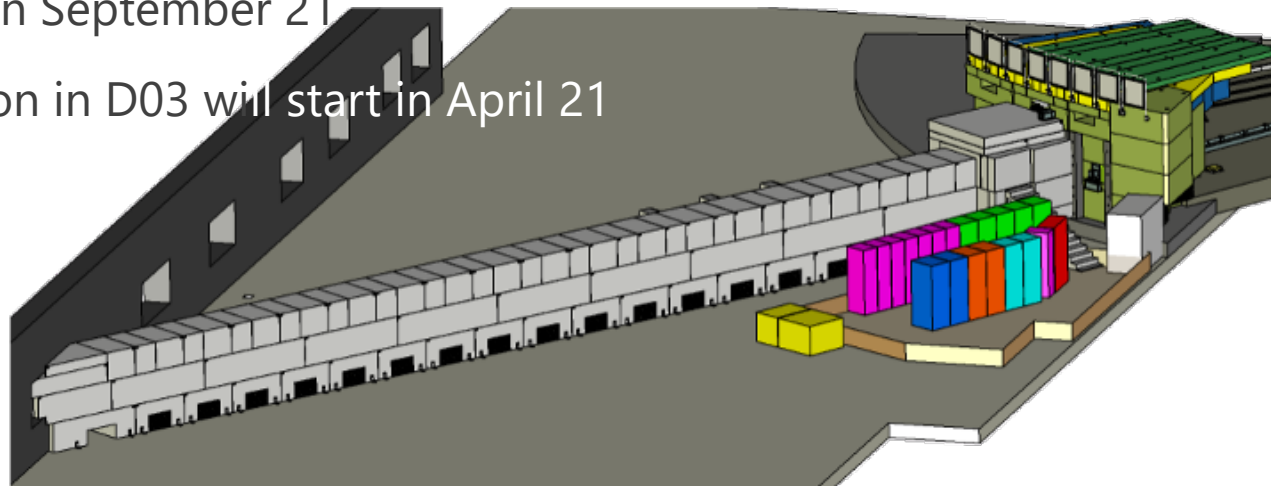
MIRROTRON



BEER

NPI update

- Other work package have to split and restart as TG3 hold 1.5 years ago
 - Manufacturing CTV for the instrument shutter sent, feedback by the end of October
 - Cave and hutch CTVs has to be finalised
 - For electrical & media installation is plan to join common projects
- Hired dedicated BEER engineer starts in November 1, 2021
- Common shielding project on truck
 - CRD passed on September 21
 - First installation in D03 will start in April 21



BEER

Hereon update

ESS contract

- Contract signed by Hereon awaiting signature from ESS
 - All work-packages pending can start soon
 - Critical components choppers, in-bunker guide, BWI
 - J. Fenske will take over from M. Müller the position in the ICB and will coordinate the Hereon activities at ESS
 - G. Nowak will take over the lead scientist position from Hereon, focus on science, e.g. hot commissioning, and less on administration

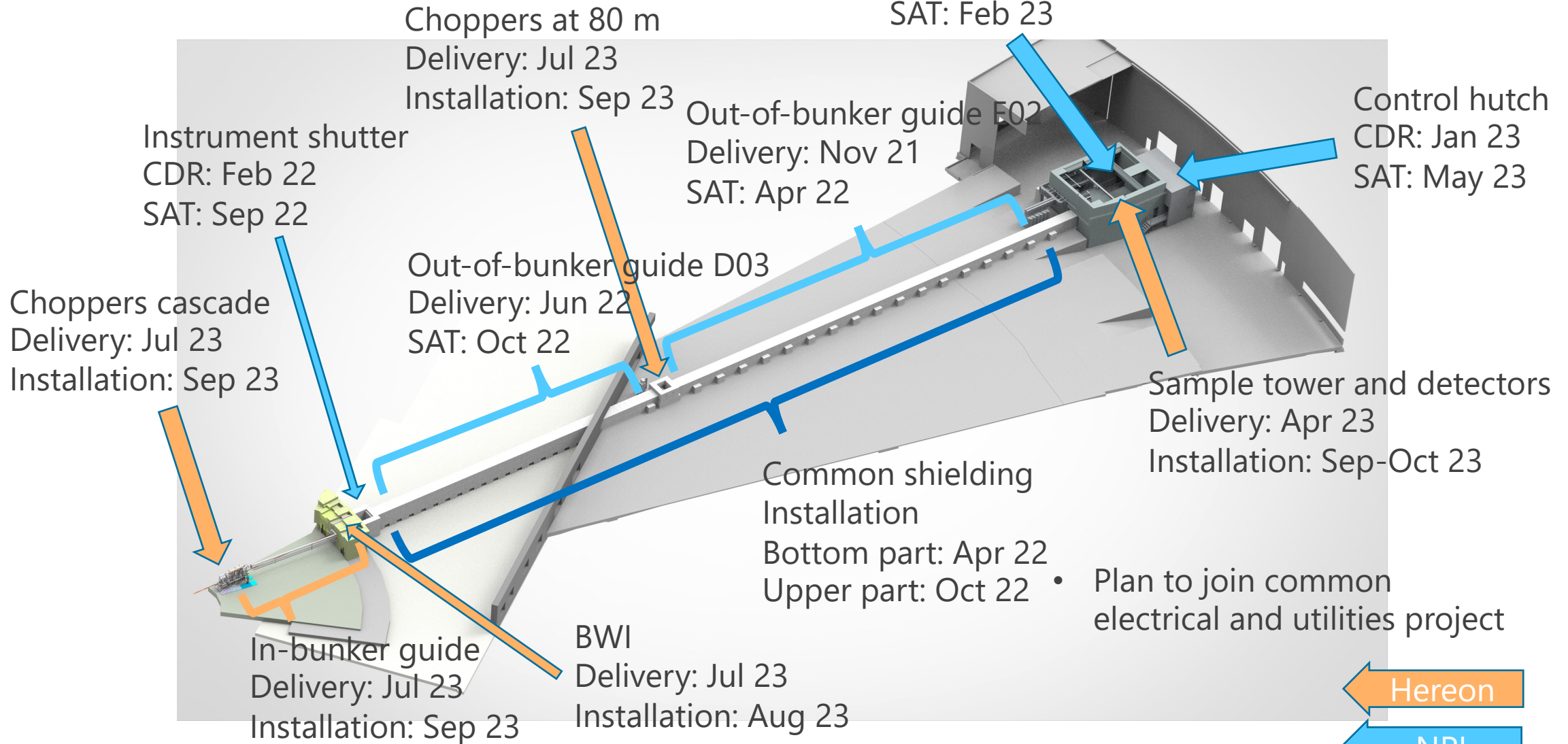
Other activities

- Preparation for procurement, e.g. update of technical specifications, evaluation criteria, etc.
- Design work on radial collimator support



BEER

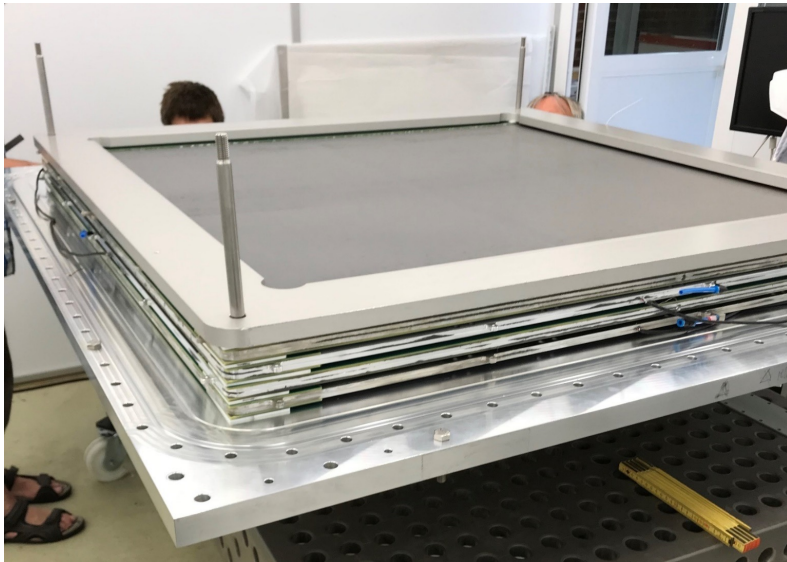
Components status



BEER

Detector status

Assembly of detection planes for demonstrator detector @ Hereon:



Anticipate specs of the demo-detector:

- Active area 1000 mm x 1000 mm
- 3 detection planes (12 planes for full scale)
- position resolution 2 mm x 2mm
- 18 % @ 2 Å
- global count rate 800 kcps

Demo-detector during "heat-out" for reduction of partial pressure of H₂O



Current activities using a ²⁴¹Am/Be-source @ Hereon:

- High voltage stability tests
- Interpretation and optimization of first pulse height spectra
- Setting up of amplification electronics.

Future activities using reactor neutrons @ NPI:

- Position resolution charact.
- Efficiency and homogeneity
- First diffraction exp. on Fe powder

BEER

Issues



- ESS Rebaseline is ongoing
 - Match of Timeline for delivery and Installation of components in particular in-bunker has to be observed
- Discussion and work on software for BEER has to start soon, e.g. data reduction for modulation technique
- Unclear status of common ESS projects, e.g. beam monitors, CEP, CUP