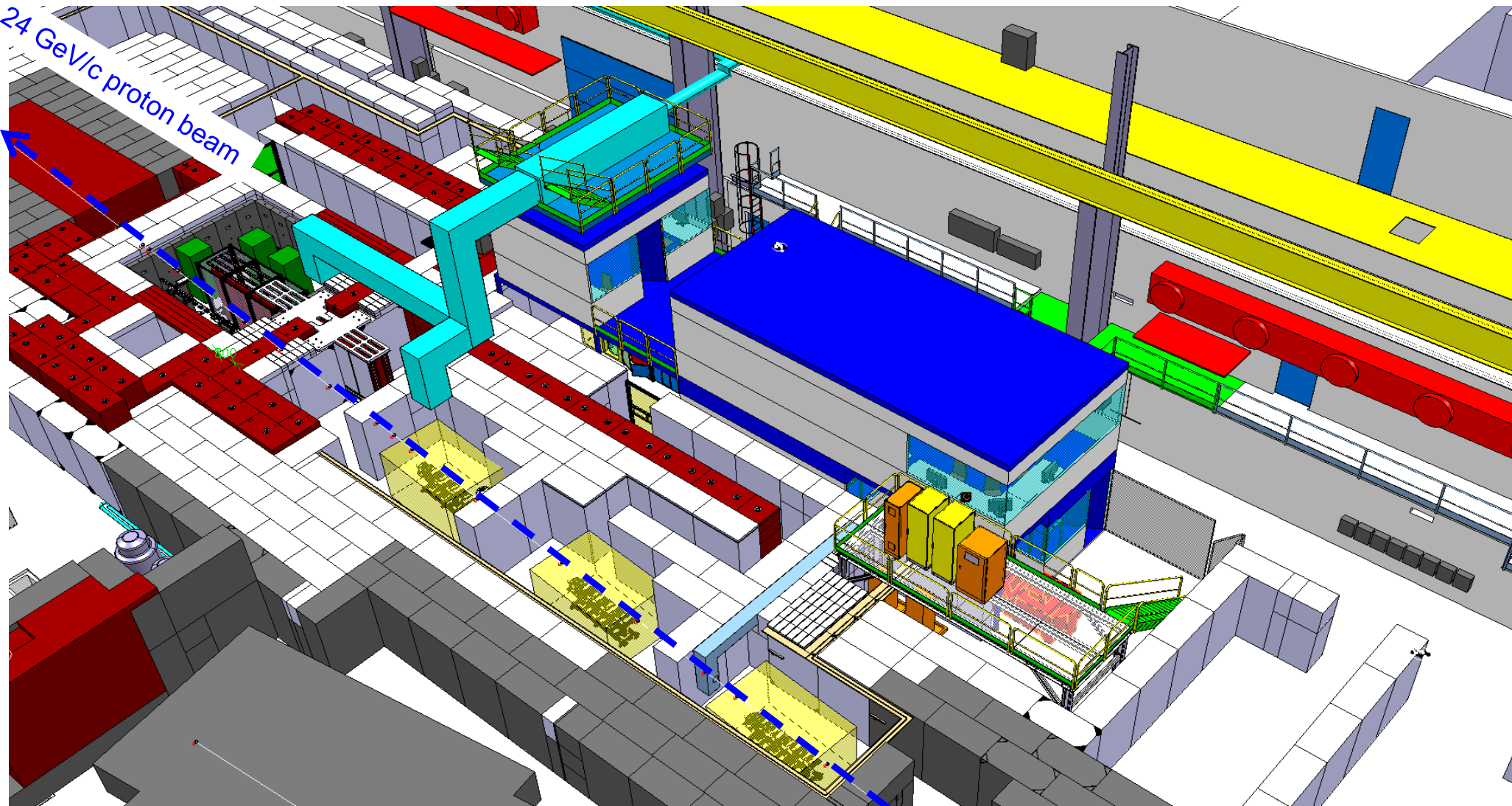


PS East Area Update

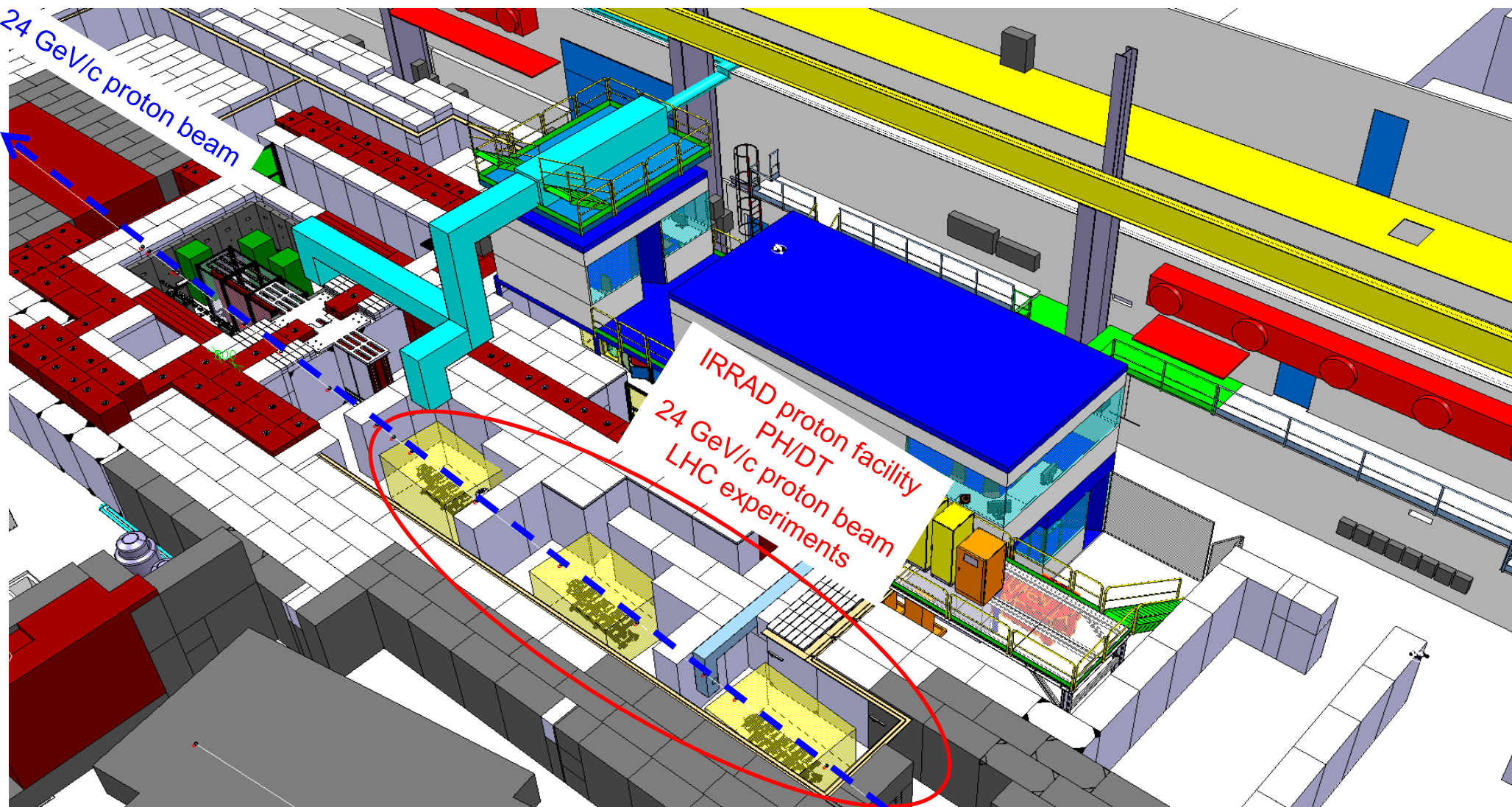
- **Outline**

- Layout updates of the facility
- Conveyer options
- Mock-up preparation and cable handling
- Other news

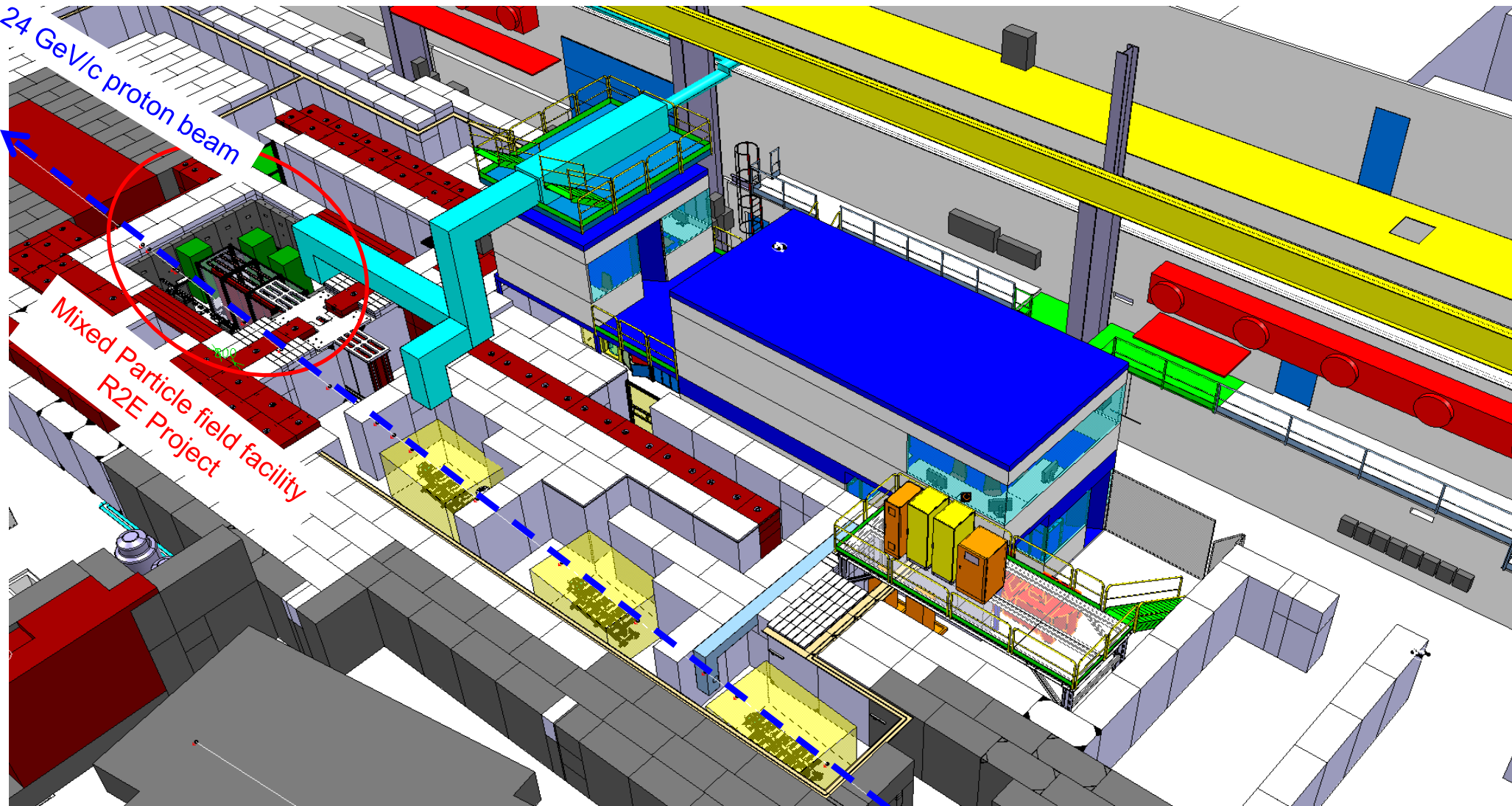
East Area Facilities



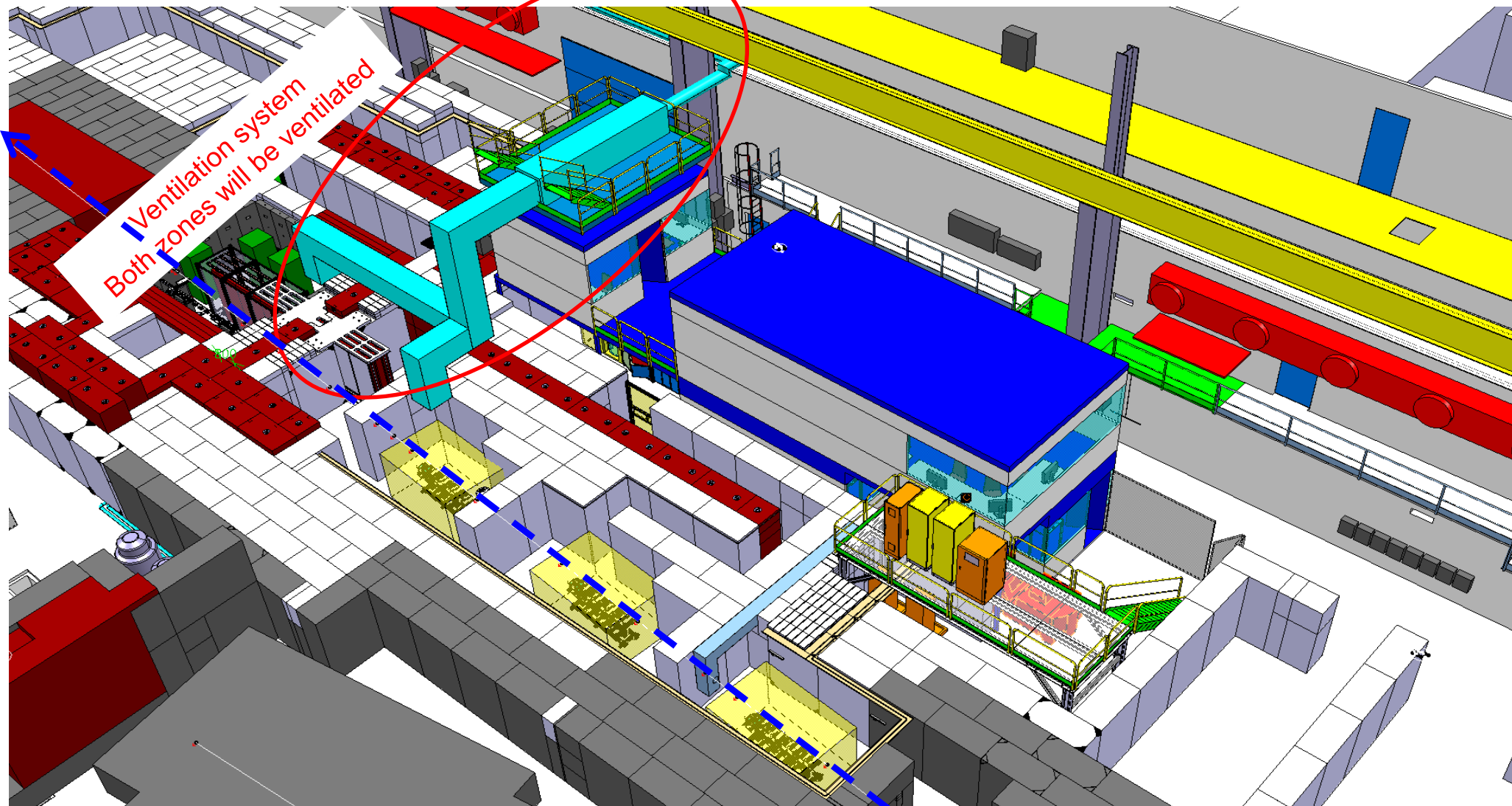
East Area Facilities



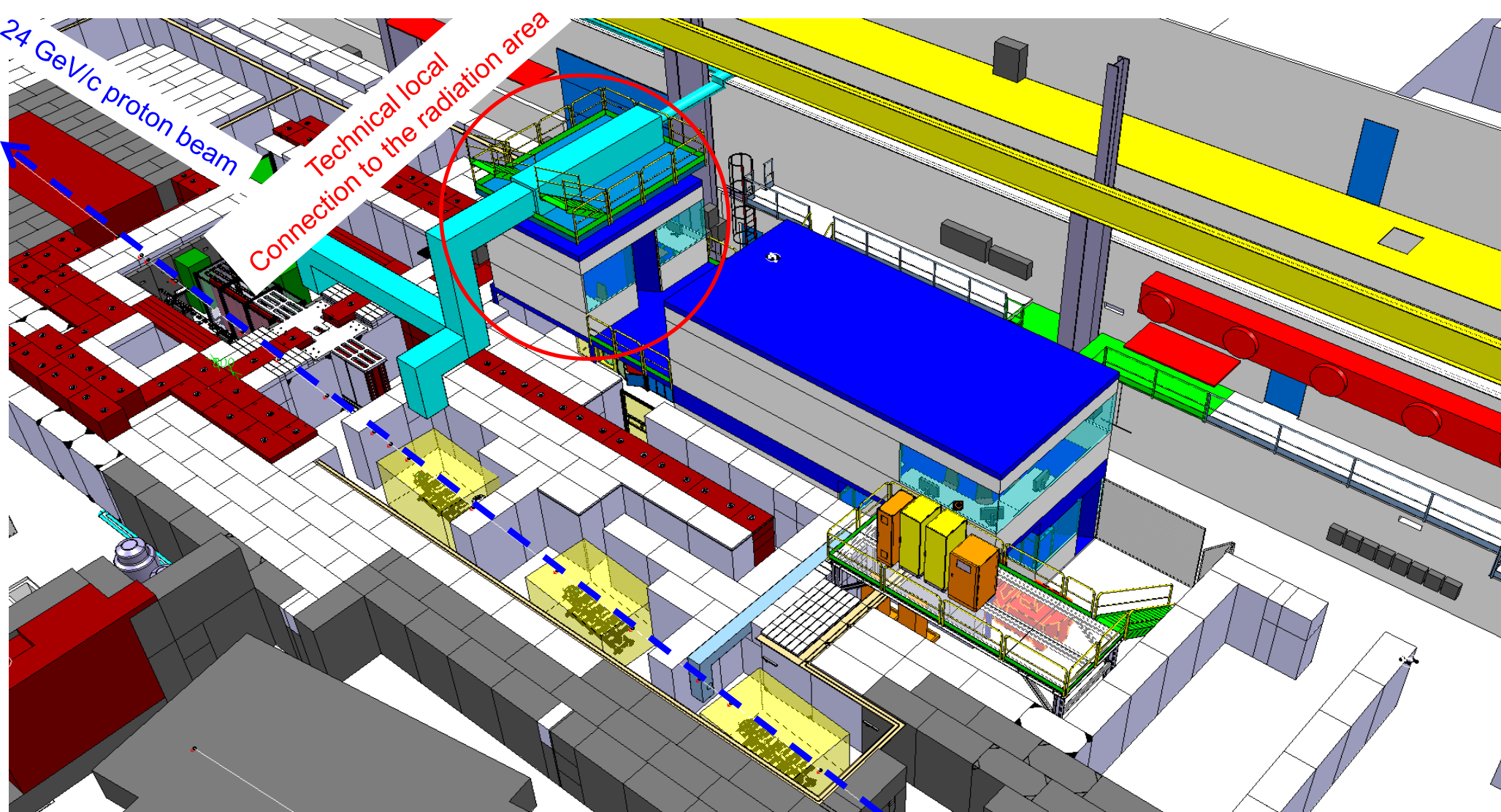
East Area Facilities



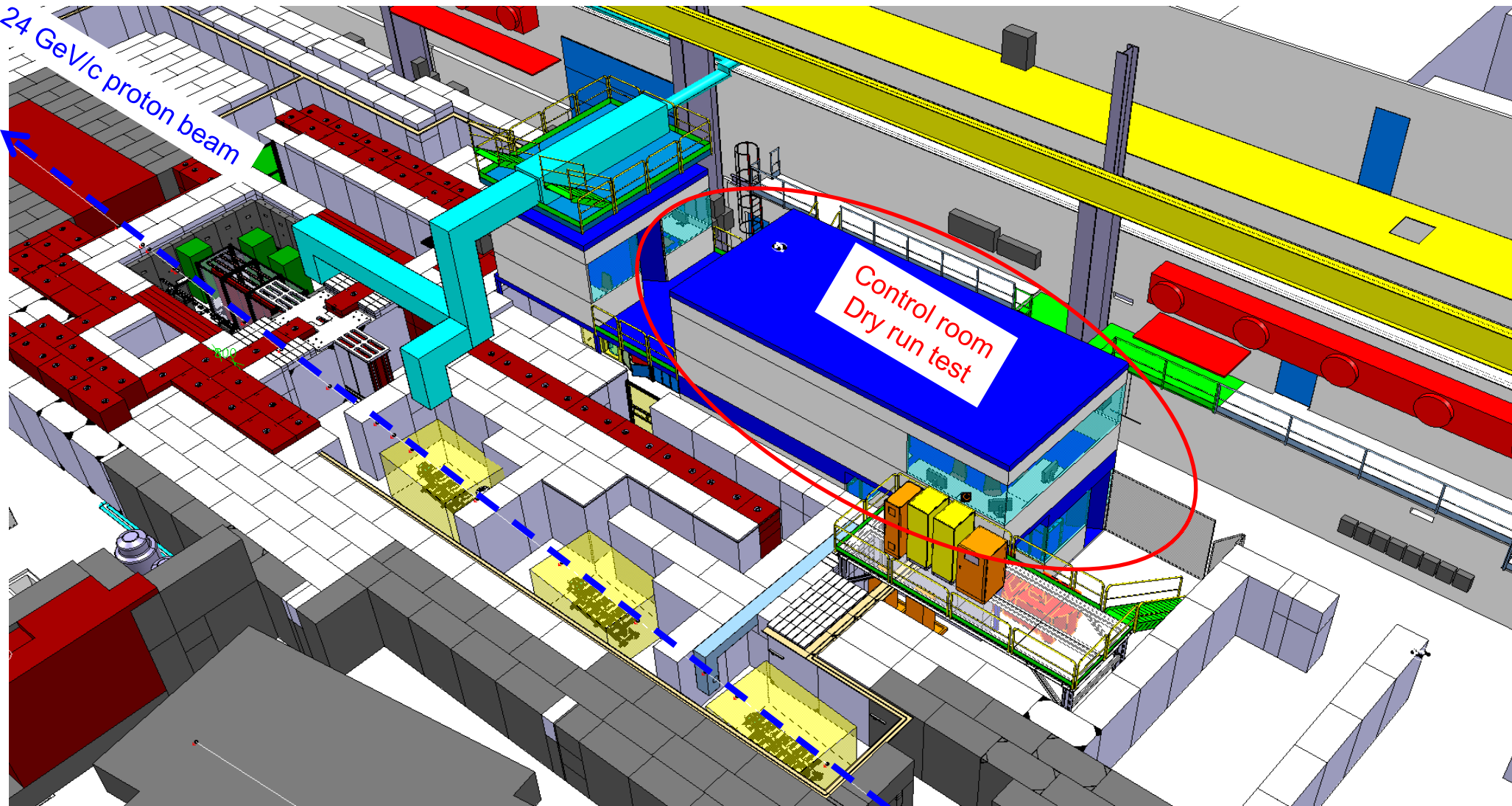
East Area Facilities



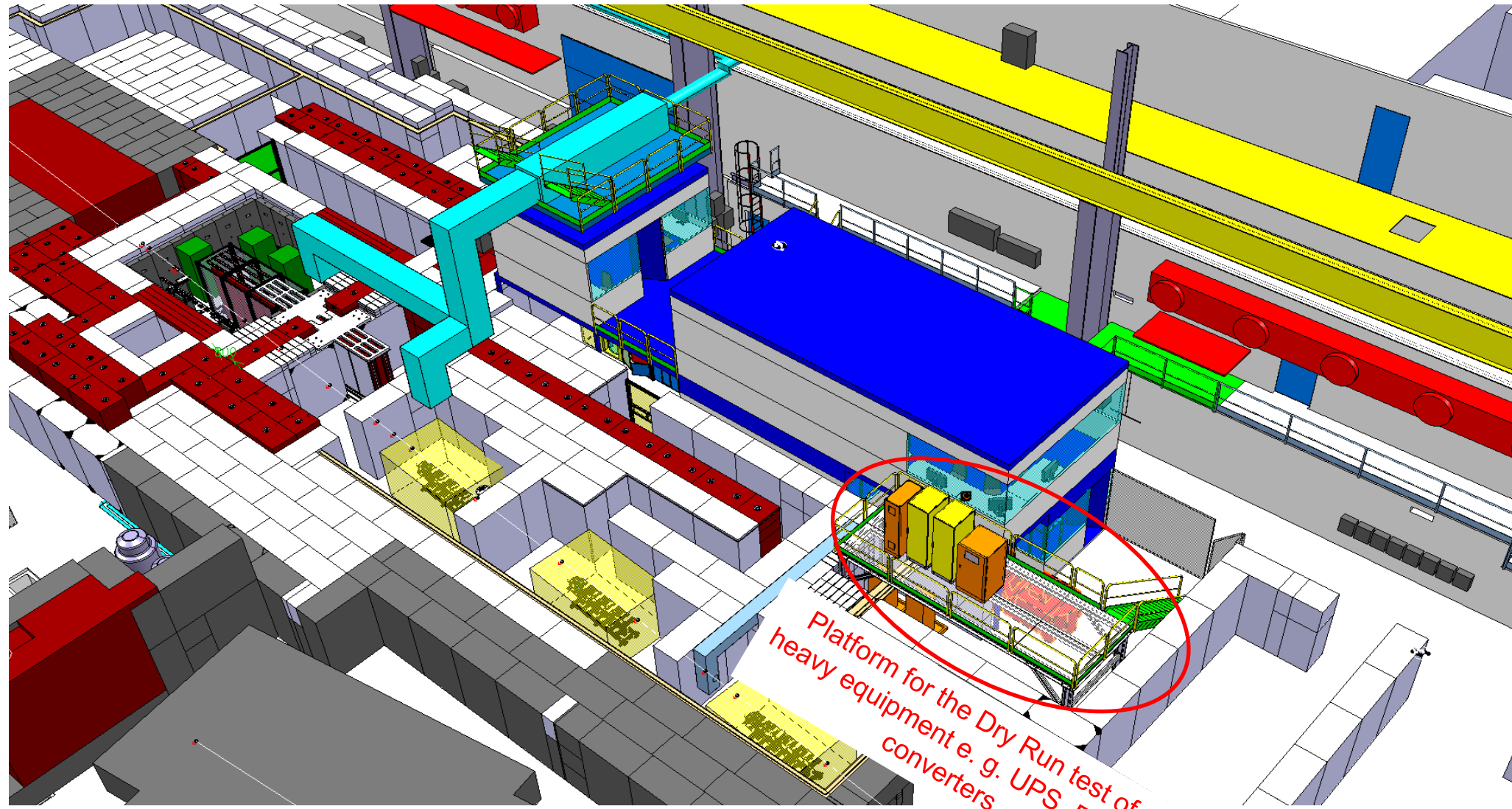
East Area Facilities



East Area Facilities

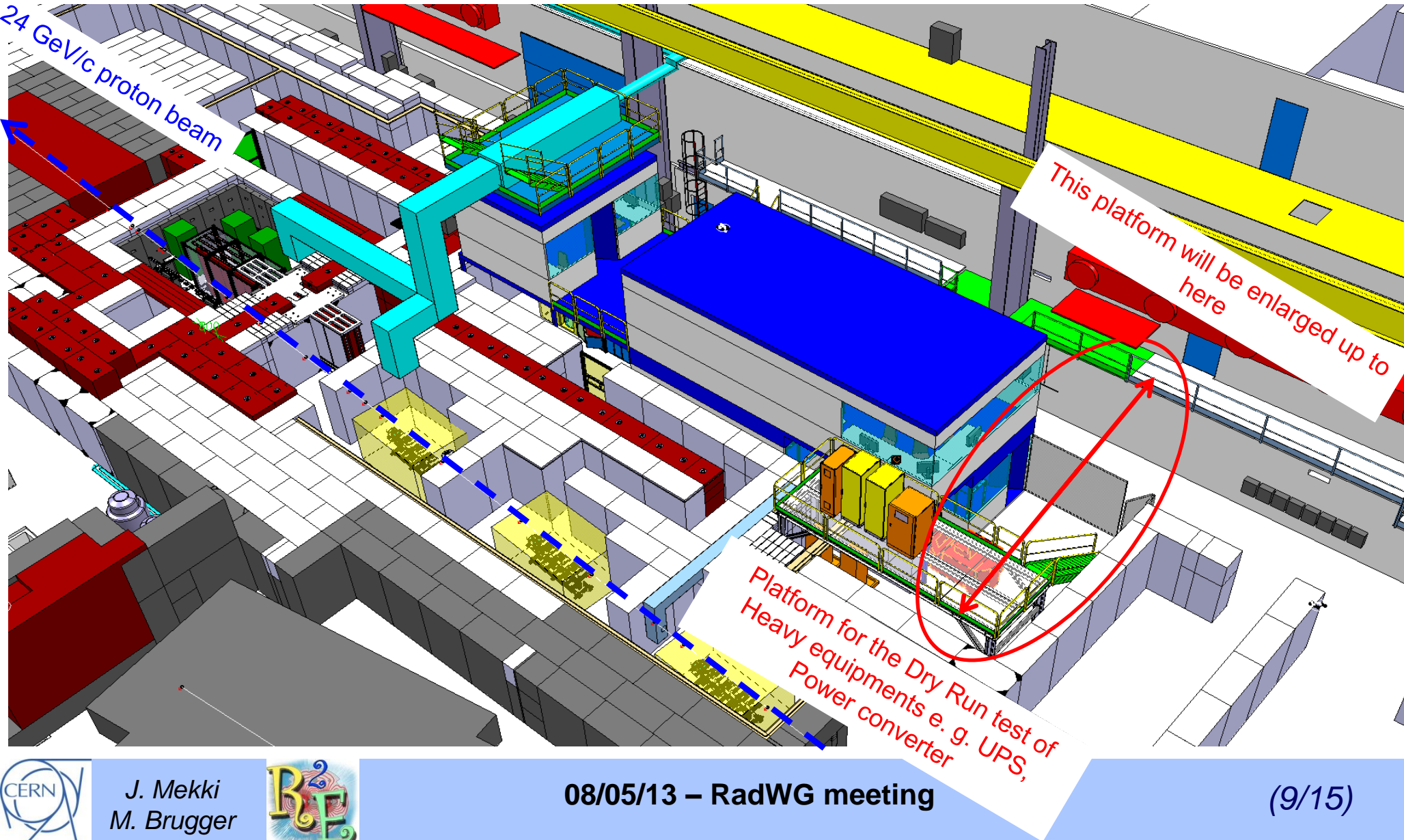


East Area Facilities

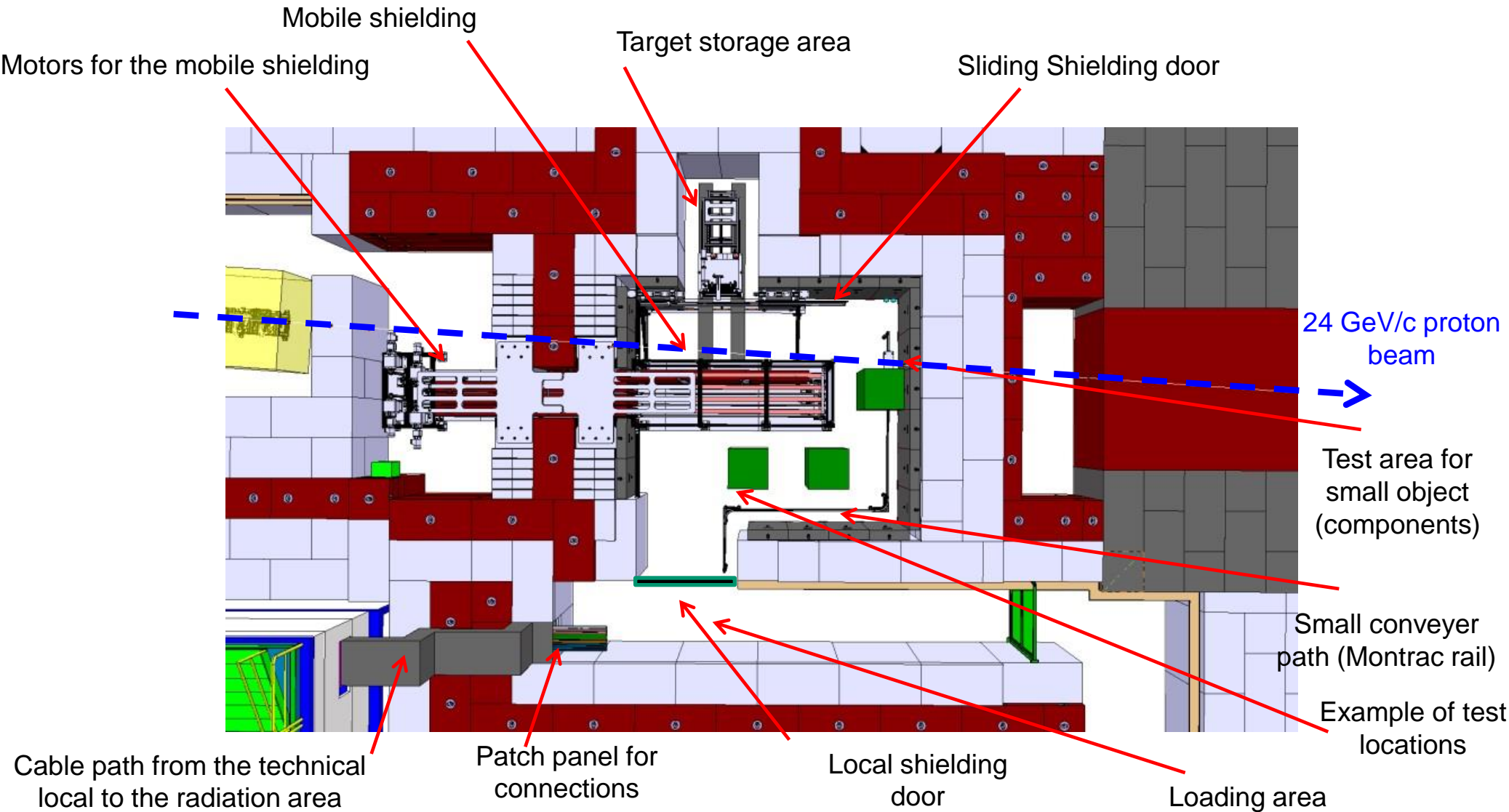


Platform for the Dry Run test of heavy equipment e. g. UPS, Power converters

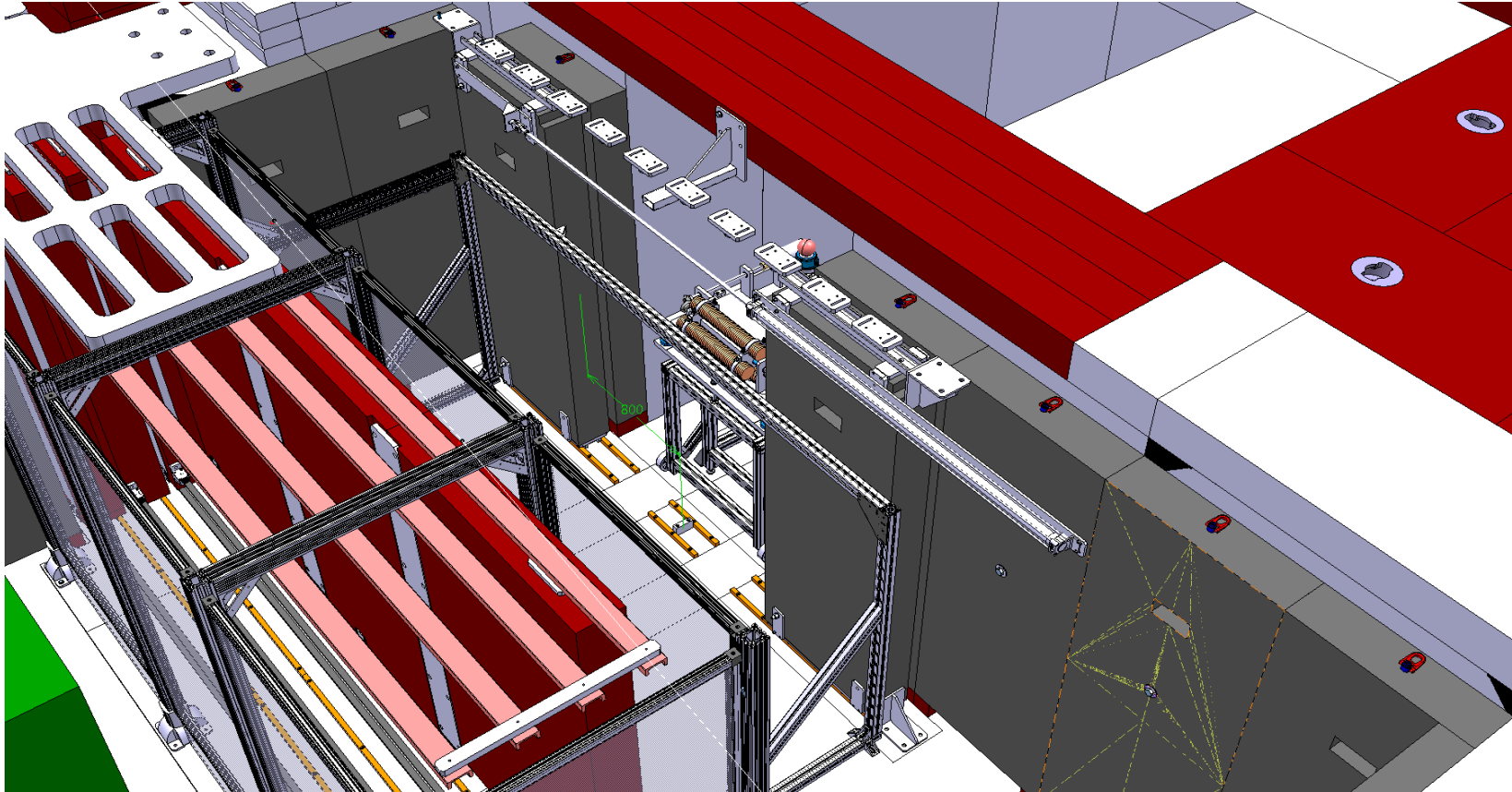
East Area Facilities



Mixed Field Facility



Target storage area



Conveyer systems

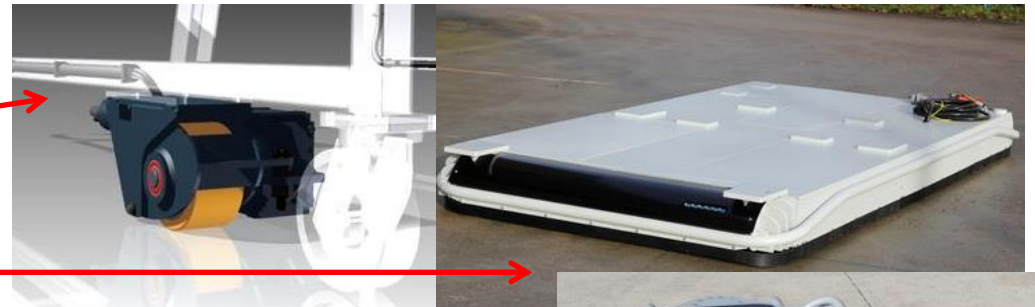
MLR (auto-guided):

- We contacted the company
- For further iteration we would require the updated layout (incl. step-file) and sketch
- Costs will likely be high (~100kEUR) for 1t payload



Other Options:

- SEAQX
 - ✓ Motorized wheel (to integrate)
 - ✓ Trailer system
 - ✓ Damped lifting and transport
- Air cushion systems (to integrate)
 - ✓ AEROGO
 - ✓ TRANDLOG
 - ✓ SMEYERS

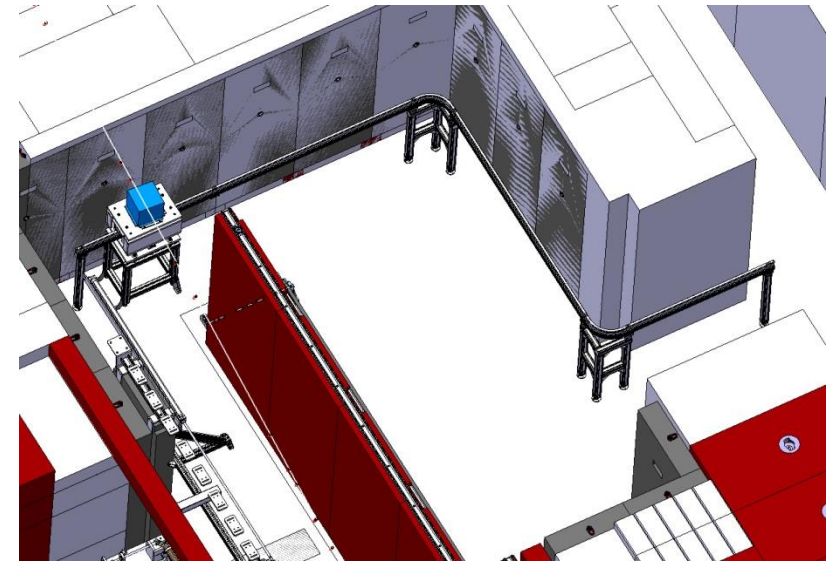


We will take contact with them

Montrac conveyer

○ Montrac Rail:

- Possibility to use a software + screen to control it
 - Location of the control rack to be discussed
 - Can be installed inside a 19" Rack



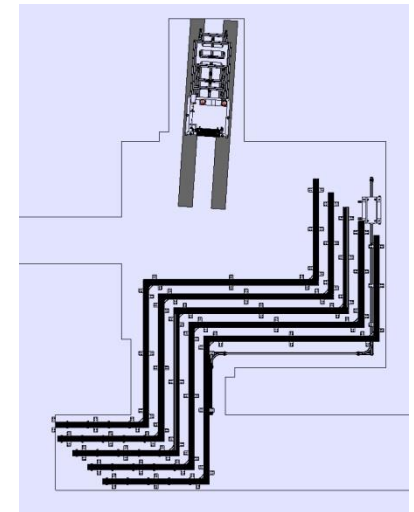
○ Montrac Rail

- ❖ No load on the walls as the Montrac rail stands on under frames.

Mock-up preparation and cable handling

Mock-up

- ❖ Mock-up of the Mixed field facility (**Only radiation zone**)
- ❖ Ordering of cables (Power cables + control cables) of 20 m length **to check their flexibility** when used in the cable holder chain. (e. g. Test of a recent NE48 cable + a custom made to check their flexibility, flexible DC and 3-phase cable, ND26 etc...)
- ❖ A Mock-up of **the most large item** to be tested will be done (UPS)
- ❖ The weight of cables for the mock-up (ceiling) : 300 kg.
- ❖ The mock-up will have a ceiling
- ❖ No load on the wall as the montrack rail will stand on under frames.
- ❖ **Looking for a ball caster rail to be fixed on the ceiling** to hang the cable holder chains
- ❖ 5 cables holder chain of 20 meters length have been ordered.
- ❖ A lifting system option for the equipment to be tested has been found.

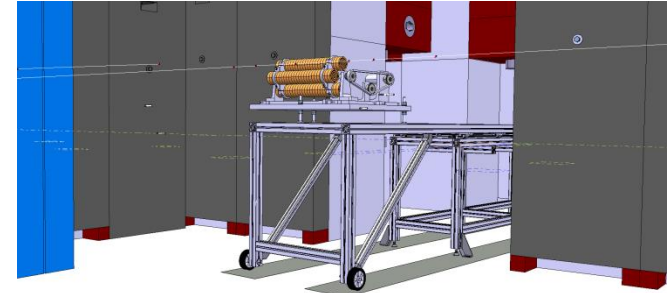


Cable handling

To avoid the storage of too many cables in the connection area:

- ❖ Connection area **will only provide a patch-panel for the full (maximum) cabling requirements** (including services like pressurised air, water, etc.)
- ❖ **The required cabling will be prepared prior the test** together with the flexible cable holders irradiated cables (and holders) will be stored in the internal/external storage area (to be defined) for later re-use

Other News



❖ Target:

- Three fixed installed target for varying beam intensity
 - ✓ Materials Aluminium (×2) and copper (×1) (allowing for intensity reduction of about 2.5 and 4)
 - ⇒ Second aluminium target shall include longitudinal holes to allow for the largest reduction (/4)
 - ⇒ 1 empty slot (e .g. direct beam sample tests)

❖ Expected operation with Beam-Parameters (first guess):

- standard operation (with one of the massive targets in place): any sigma between 5 to 25mm is ok for us
- reduced intensity operation (with aluminum target including 'holes'): any sigma between 10-25mm is ok for us
- small component tests
 - ✓ with target in place: sigma larger than 15mm required
 - ✓ without target in place: largest possible sigma at small sample location

❖ Name of mixed-beam facility (thanks to Ruben!):

- **CHARM-PS** (Cern High Energy Accelerator Mixed field/facility at the PS)