



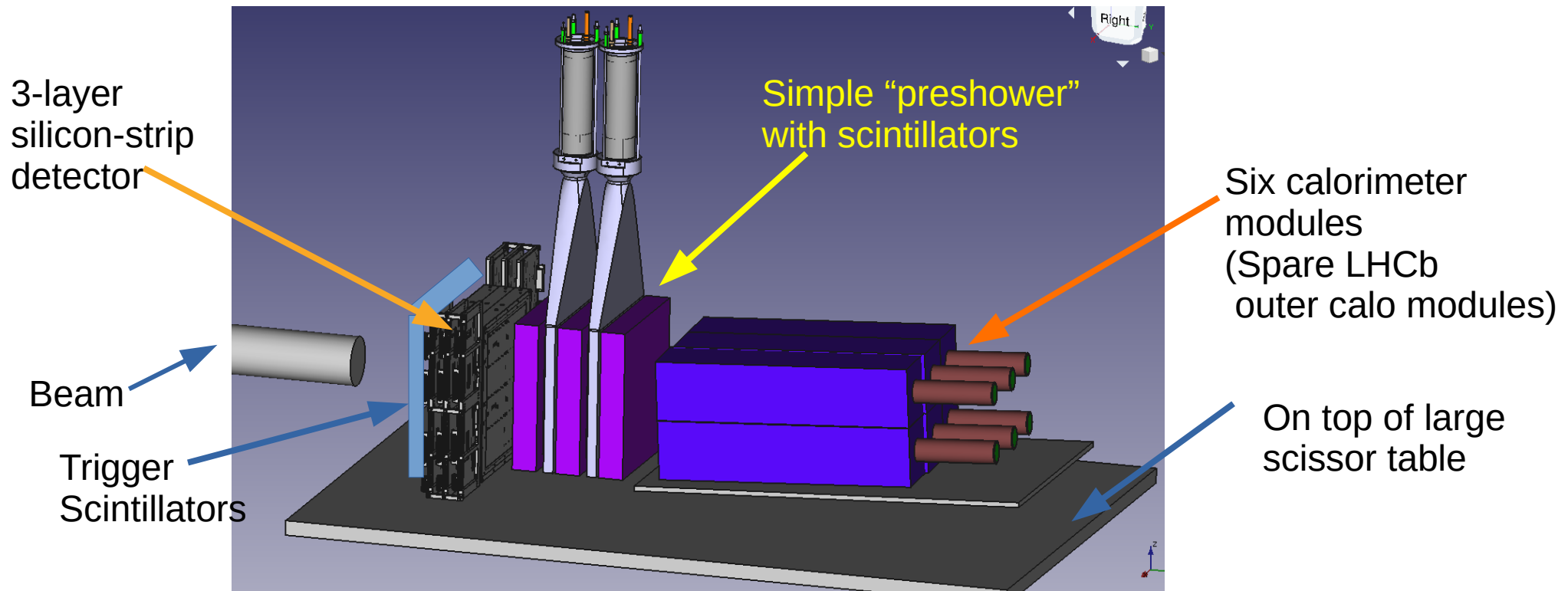
Calorimeter Test Beam

Brian Petersen

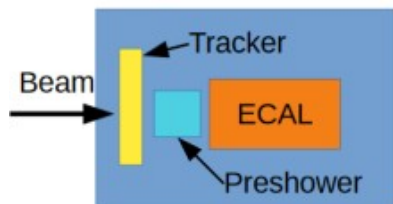
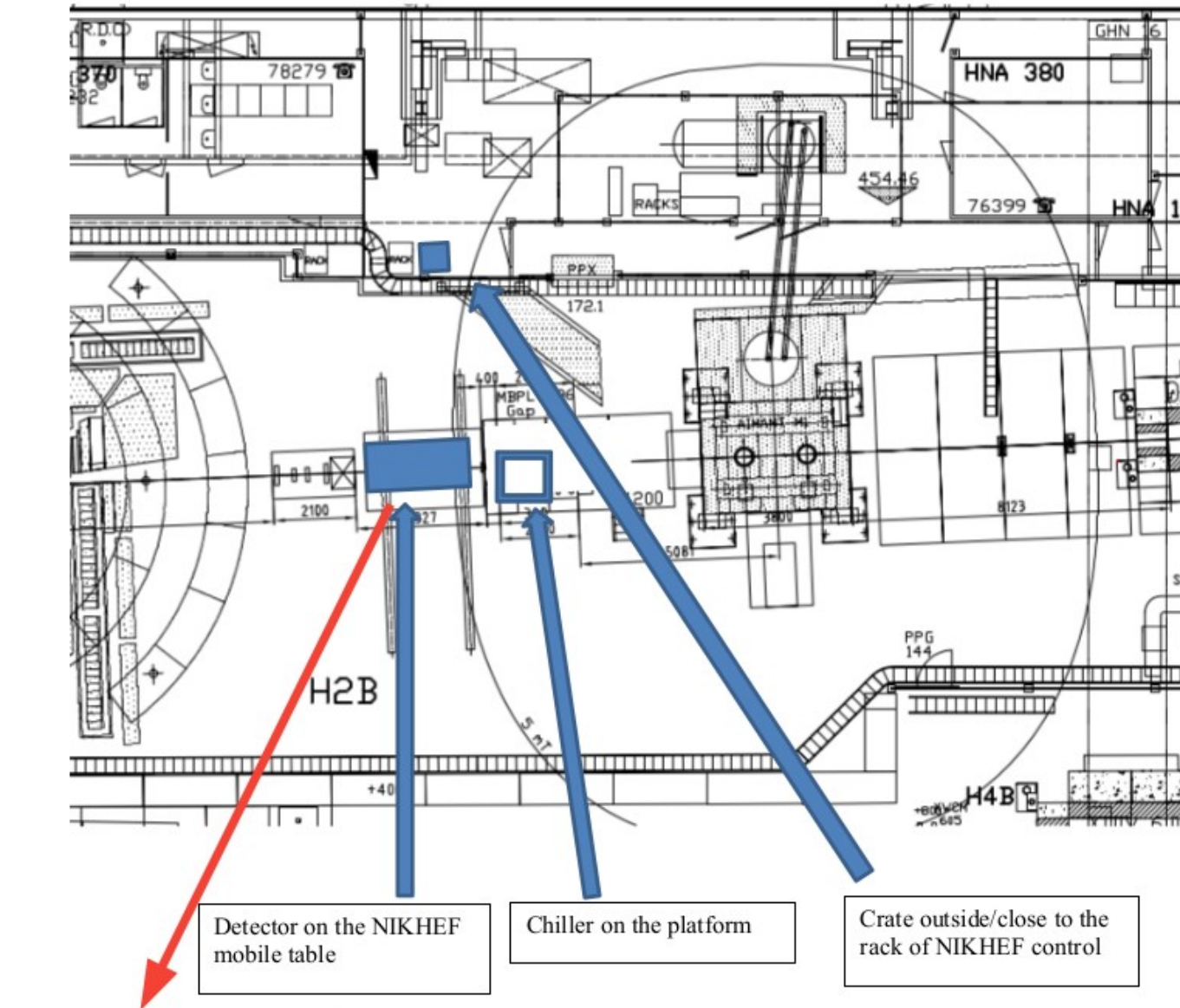
22 July 2021
PS/SPS User Meeting

Test Setup and Goals

- Goal is to calibrate preshower+calorimeter modules for FASER experiment (installed in LHC for Run 3)
 - Secondary goal is operation and performance measurement of tracker station in beam conditions
- Assigned to run in H2-PPE172, July 28-August 4
- Planned setup:



Layout in PPE172



Readiness for Installation

- Components available and assembled in EHN1-NP area

Tracker station with scintillators



Calorimeter and preshower support



- Transport and installation scheduled for Monday, 10:00
- Safety inspection scheduled for Wednesday, 14:00
- Nitrogen and dry air arranged to avoid condensation inside and outside tracker station (water-cooled)

Beam Plan

- Initial setup, characterization and scan across detector
 - Muon beam
 - Up to 200 GeV (large energy spread ok)
 - $\sim 10^4$ muons/spill
 - 1-2 days
- Calorimeter response and scan
 - Electron beam
 - 30 GeV, high purity
 - $\sim 10^4$ electrons/spill
 - 1-2 days
- Energy scan and high energy response
 - Electron beam
 - 10, 20, 30, 40, 50, 75, 100, 150, 200, 250 GeV, highest purity
 - $\sim 10^4$ electrons/spill
 - 1-2 days
- Preshower impact on tracker
 - Electron beam
 - 30,200 GeV, good purity
 - $\sim 10^4$ electrons/spill
 - 1 day

If possible

*To be coordinated
with H4 activities*