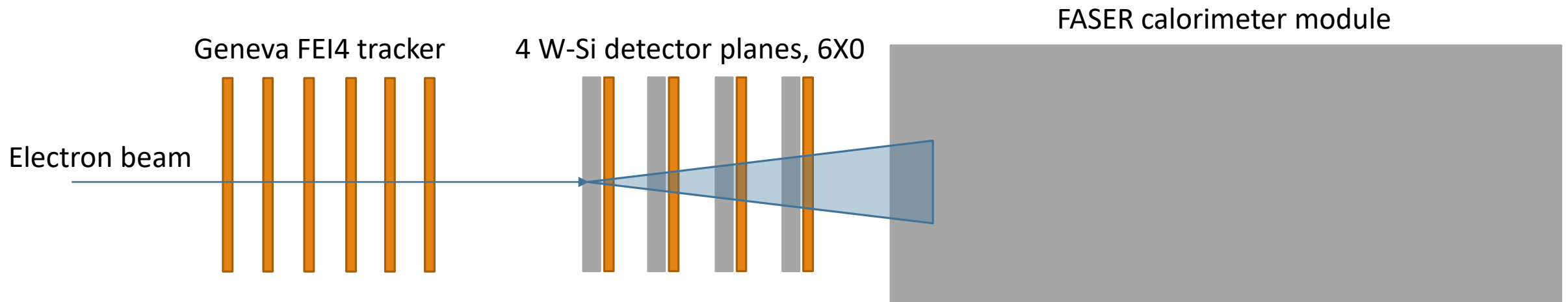


FASER preshower pre- production test

LORENZO PAOLOZZI

Physics scope

- Measurement of performance of new FASER preshower pre-production ASIC.
- Combined performance of new FASER preshower and FASER calorimeter module.
- Electromagnetic shower reconstruction study.



Tight timeline:

- Final production chip to be submitted in October 2022, FASER pre-shower detector installation foreseen during winter break 2023/24

Beam requirements

- High purity electron beam with Energy up to 200 GeV. Expected energy scan down to 20 GeV.
- ~1k events/spill on an area of $< 1 \text{ cm}^2$.

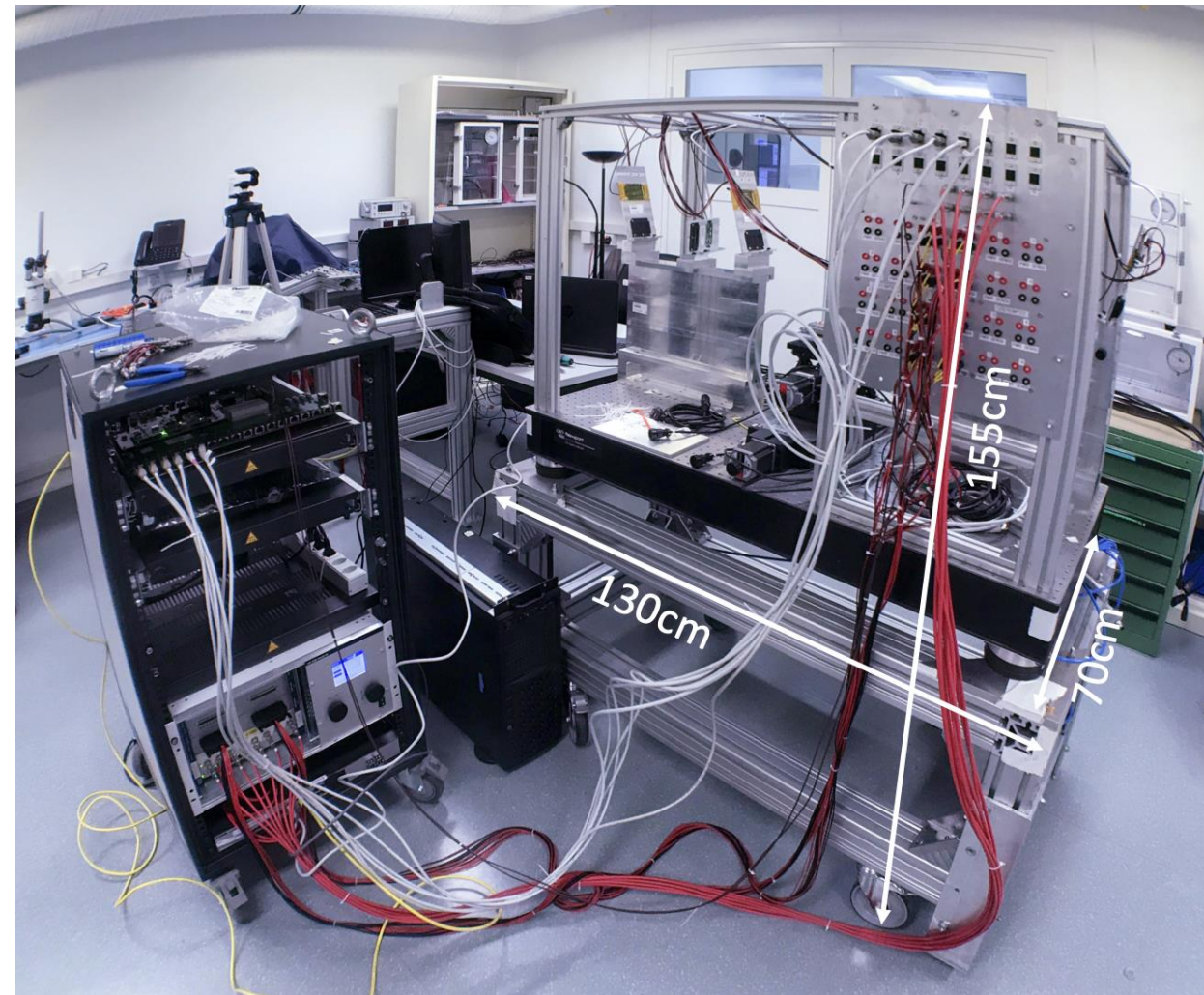
Infrastructure

FROM RESEARCH GROUPS:

- Geneva FEI4 telescope (presently stored in H8), will require crane to move into the area.
 - Approx size: 1.5 m x 0.5 m
- Small rack with telescope readout.

FROM THE AREA:

- 1 Table for desk power supplies.
 - (approx. size: 1.5m x 0.8m)
- 1 Remote controllable Desy Table for pre-shower and calorimeter module. Expected weight ~ 30 kg.
 - (approx. size: 1.0m x 0.5m)
- Power outlets for power supplies and computers. < 1 kW.
- Ethernet connection to the area.



Due to the tight timeline for the FASER preshower, we would like to ask for some extra time during the 'placeholder' weeks?