

CBM-TOF test at SPS

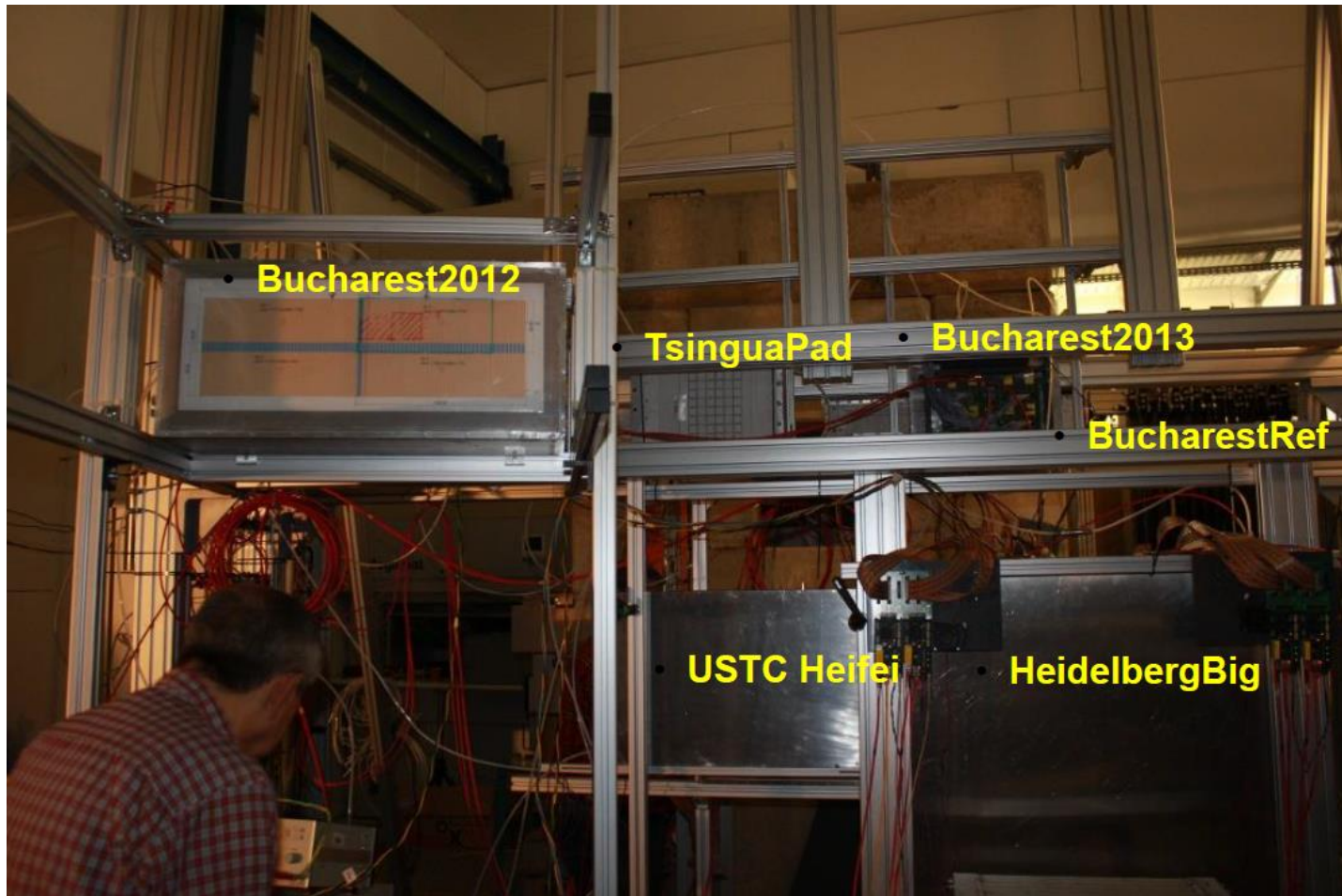
coordination meeting 13-Jan-2015

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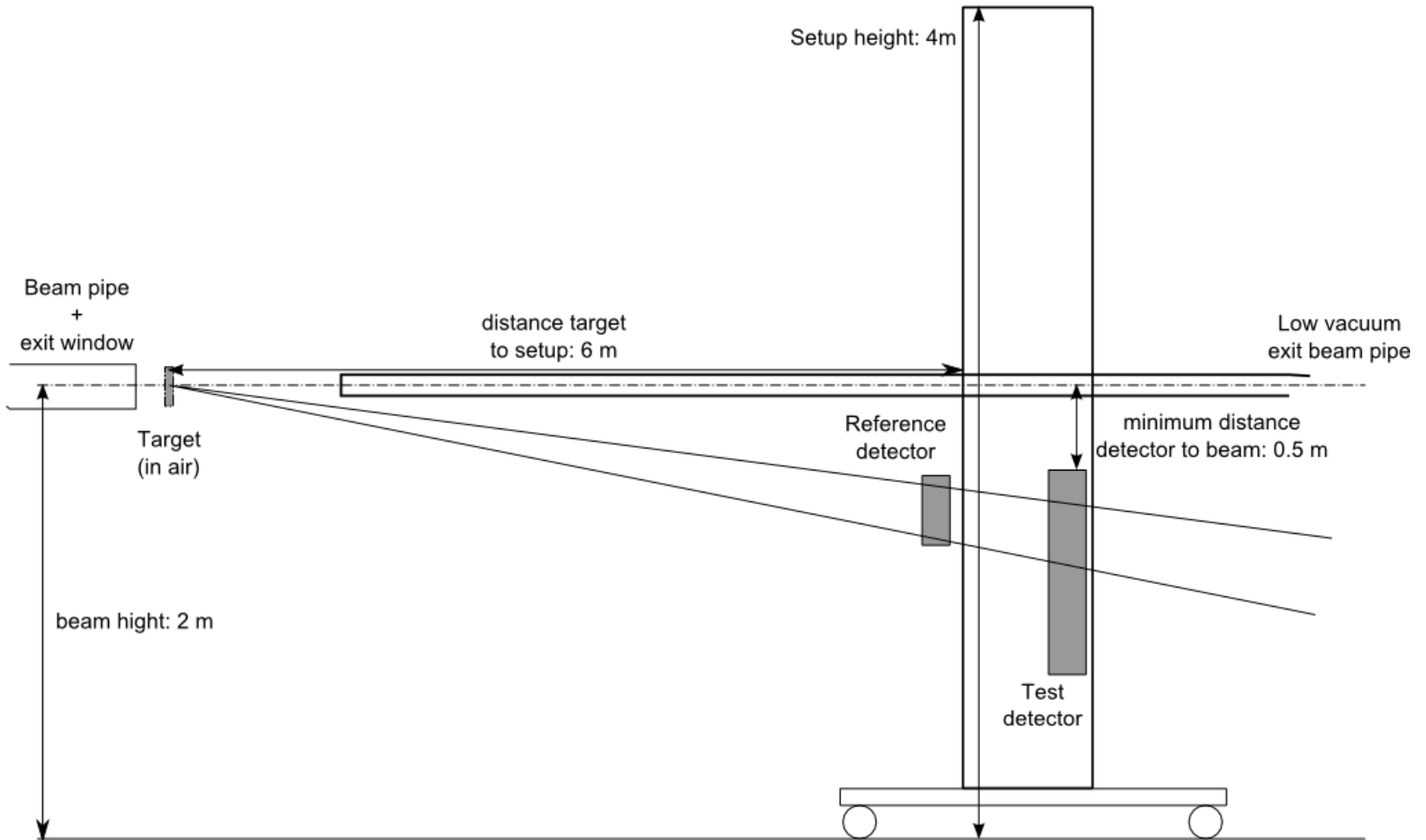
About this test

- testing of CBM detectors: TOF (8) and TRD (2)
- gas detectors:
 - TOF MRPC: 85% freon, 10% SF₆, 5% iso-butane
 - TDR: 80% Ar 20% CO₂
 - active volume to be confirmed
- four groups: USTC(CHN), Tsinghua(CHN), NIPNE(RO), PI-Heidelberg(D),GSI(D)
- people: 3+2+5+3+3=16

Test setup at GSI 2014 (beam @2m)



Original setup



CERN setup

- beam height 1.3m? => no need for high setup
- possible rate \Leftrightarrow down stream beam pipe
- target (Pb?) thickness?
- test condition requirements for MRPC:
 - 30 kHz/cm² uniformly over whole surface (10x30 cm²)
 - (for TRD 200 kHz/cm², compensated by position)
- testing under load => long FT
- beam energy...

Requirements/questions

- two smaller mounting frames,
- is it possible to get additional mounting tables from CERN?
- gas mixing unit (ATEX), tbd
- gas purchase at CERN? gas recycling?
- whole electronics (power, network)
- HV (CAEN) (up to 15 kV, < 1 mA)
- ...