H8 beam area services, status report

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GAS system, drift chamber

- A lot of bourocracy due to flammable gas, nee to start well in advance, ongoing…
  - I will be the testbeam safety responsible EXSO, with the help of Lecce colleagues we will fill all the required documents CERN Flammable Gas Guideline
- Gas mixture: He-Isobutane 90-10
- Such mixture not available at CERN store, a request to the gas company has been done, waiting for answer about cost and delays. Very tight in time, usually 6-8 weeks!
- Other option would be to go with separate bottles and use a mixer.
  - Problem: Lecce gas mixture not certified as CERN wants, not possible to use it
  - New mixer from CERN store: 6k CHF…
  - ongoing requests to other groups if they have a flammable gas mixer to lend us
- Gas pipes to be installed (either CERN gas service or by us). Rilsan might not be allowed since it is flammable, to understand better… CERN document on gas pipes

GAS system, GEM + uRWells

- 2 bottles of AR/CO2/CF4 45/15/40, on the way to be ordered (available at the CERN store)
- gas pipes, pressure reducers, flowmeter to be installed. Waiting from price estimate from CERN group

Testbeam area

- According to our previous survey, everything should fit in the RD52/DREAM area a part from mu detectors, will be installed downstream where Totem has a rack, to be moved, they agree
- Displaced fibers Pavia calorimeter:
  - to understand if can be installed on the side of R52 calo or inside the big box
  - To understand how much we want to rotate (RD52 calo on the platform with big angle rotation might use the space where the GEM-rWell preshower will be installed

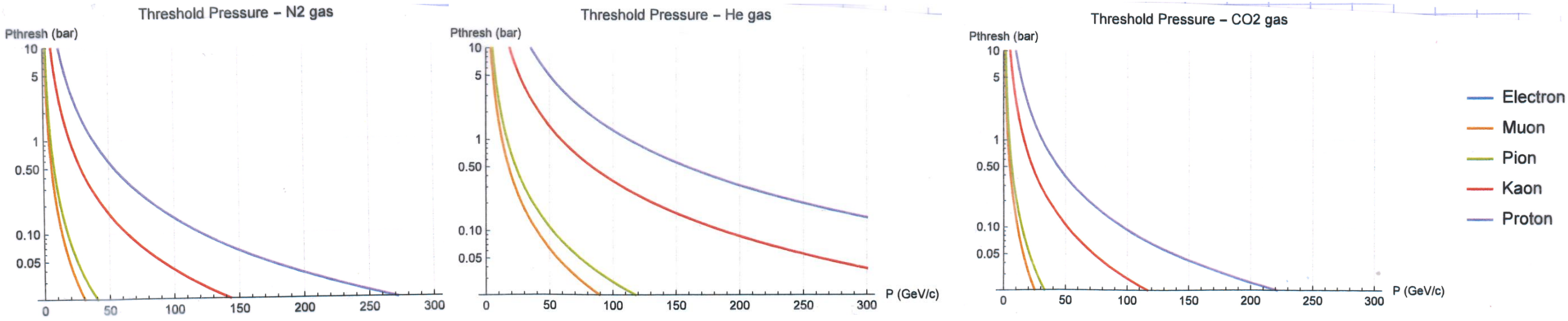
- Ethernet cables to be bough at CERN market (still to find out the length from control room to exp area)
- HV cables + connectors missing for uRWells and drift chamber, to be done by the groups

- Drift chamber mechanical support to be done (Lecce)

- To ask to M. Jeckel (now on holiday, still to be done)
  - Rack installation
  - Make space for mu chamber
  - Table close to racks
  - Check rotating platform and XY table for calorimeter
  - Add more electric sockets

Beam

- Our beam physicist will be Alexander Gerbershagen (newcomer). Nikolaos Charitonidis who was taking care of or beam files is still there but he has not been assigned directly to us
- Easiest beam: positive. To change polarity we will affect also other users, not easy
- Our past beam files should be still there (they checked) and could be used
- We need to understand if we want to request a wobbling change (passing from high energy (180 - 80 GeV) to low energy (~60-10 GeV) with reasonable rate.
  - In case we need to plan in advance since we will affect also H6 beam line. Lower energy → lower rate
- Cherenkov counters, gas available: He, Nitrogen, CO2. We can modify the pressure only. To contact beam Alexander few days in advance and request the type of gas.
  - Few curves sent to us by Nikos few years ago:
  - Measured efficiency of C counters in H8, LCD-Note-2013-006



Beam 2

- H8 beam composition (from old document sent me by beam physicists)

CERN 80-07 (Atherton et. Al) :