

- Is there a wind-down schedule for the 3x1x1 prototype and its hard cut-off date? Are there any plans if this needs to operate for longer?

We think that a natural cut-off date will be in October. In any case we do not plan to have interference from the 3x1x1 operation to the 6x6x6 construction

- Has wire brazing creep under tension been tested?

Yes it has been tested that the brazing was more robust than the wire breaking point

- Present electrostatic/deflection simulations for extraction grid

As shown in the talk by Laura the simulation had some approximation problems and the wires actually simulated had a diameter which was 6 times larger than the actual wires diameter. This result can be extracted as well from the analytical formula used for multi-wire proportional chamber which foresees a local field at the wires surface (100um diameter) of 5.3 kV/cm

- Are you confident that you're flowing enough gas through the gas phase to prevent backflow of outgassing impurities to the liquid?

The gas flow is given by the LAr boil-off rate (20 g/s of LAr). We are confident that this rate should provide enough gas exchange. In addition critical points like the chimneys where there could be accumulation of impurities are deliberately connected to the recirculation circuit in order to avoid trapping these impurities

- Could the LEM manufacturer that has not suffered the recent delay (fire) carry out the full LEM production if required?

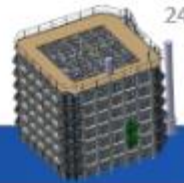
The fire is not going to affect the actual production plan. Both firms are in equal state of being able to provide LEMs according to the actual production schedule which is shared among the two producers

- Present the timescale for critical decisions in the light distribution system and in the 10 kV high voltage distribution system

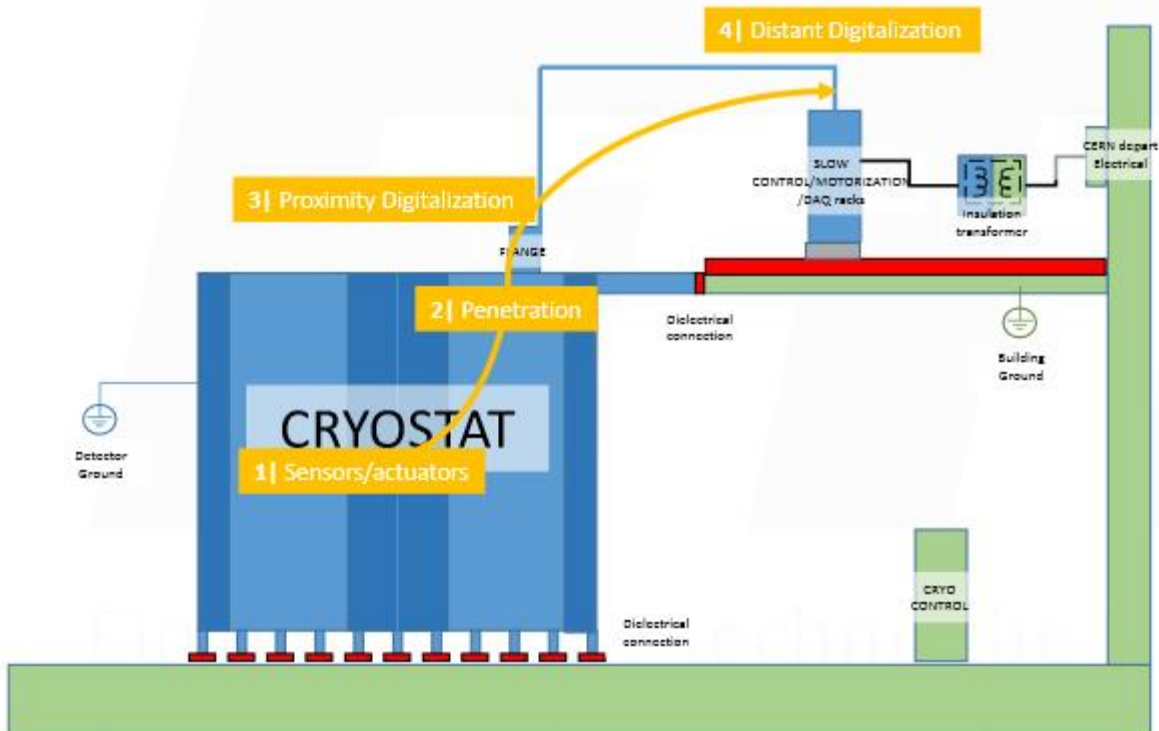
For what concerns the 10kV feedthrough a choice has already been taken in order not to introduce delays basing on the customized design already used for the 3x1x1. For what concerns the light calibration system some last choices will be taken based on some LN2 testes performed at IFAE and CIEMAT on the light source and fibers by October 2017. This process has no impact on the schedule.

- Please present a detailed discussion of grounding for tomorrow's session.
From presentation by Y. Rigaut →
- Is there a central drawing/schematic repository? Is it accessible to reviewers?

Yes there are two, one within the collaboration and another one integrated in the neutrino platform smart-team system



GENERAL VIEW OF PROTODUNE DP



Present your risk management plan and how you deal with risk mitigation.

The risk matrix document provided last year to the LBNC is already attached to the INDICO page of this review under LBNC documents