

D. BOUMEDIENE, L. CASTILLO GARCÍA, ON BEHALF OF HGTD — 19/05/22

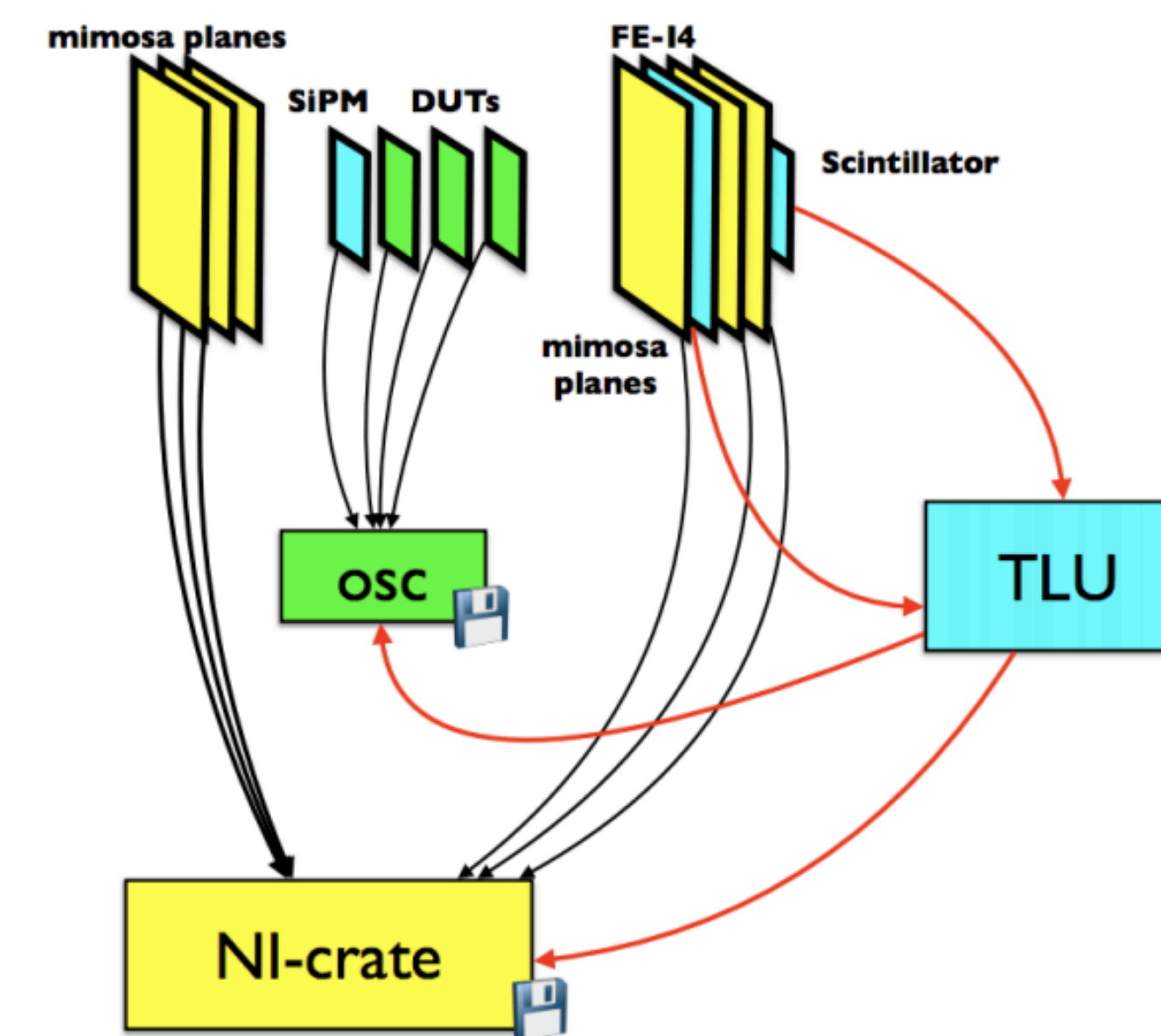
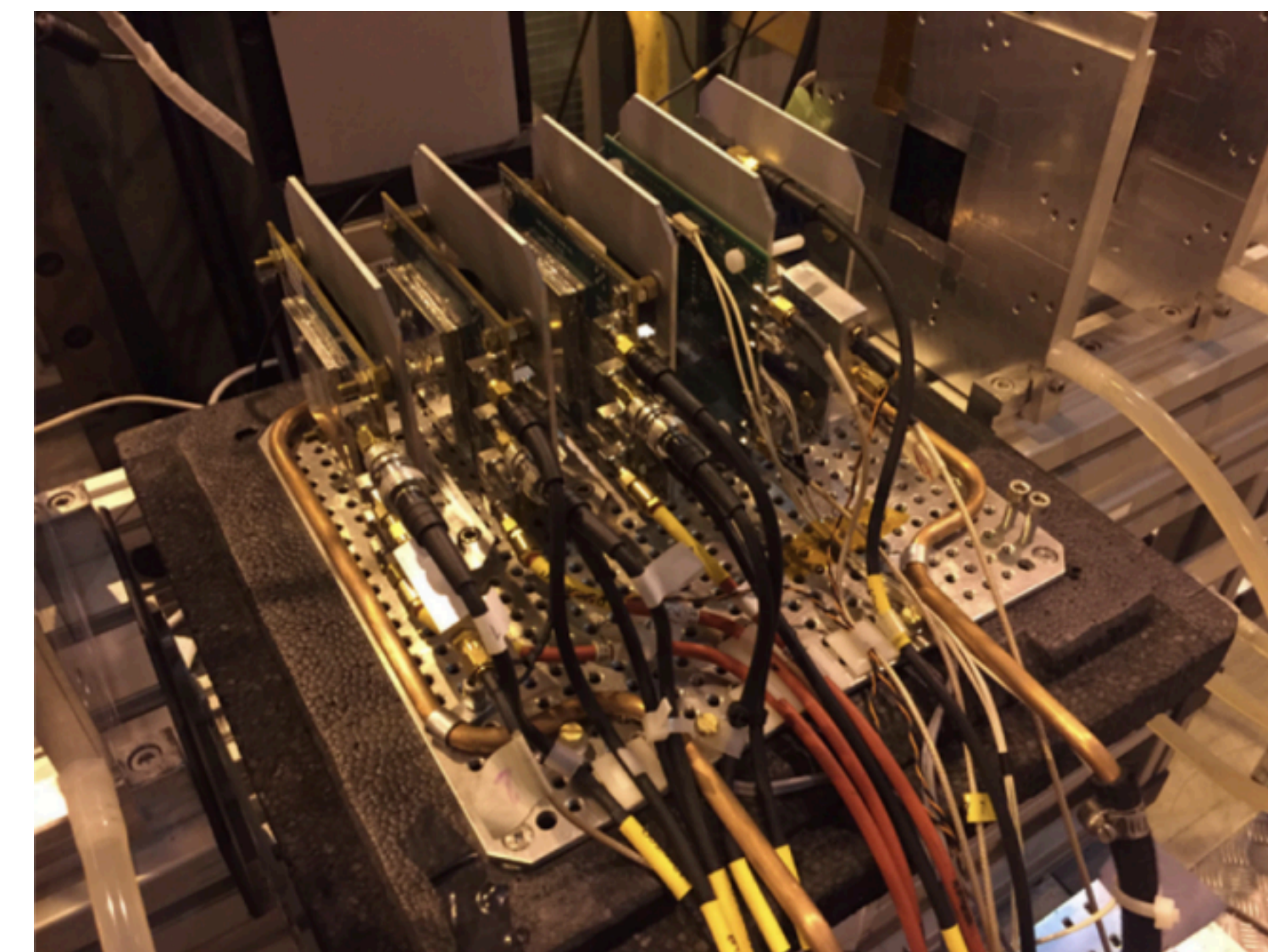
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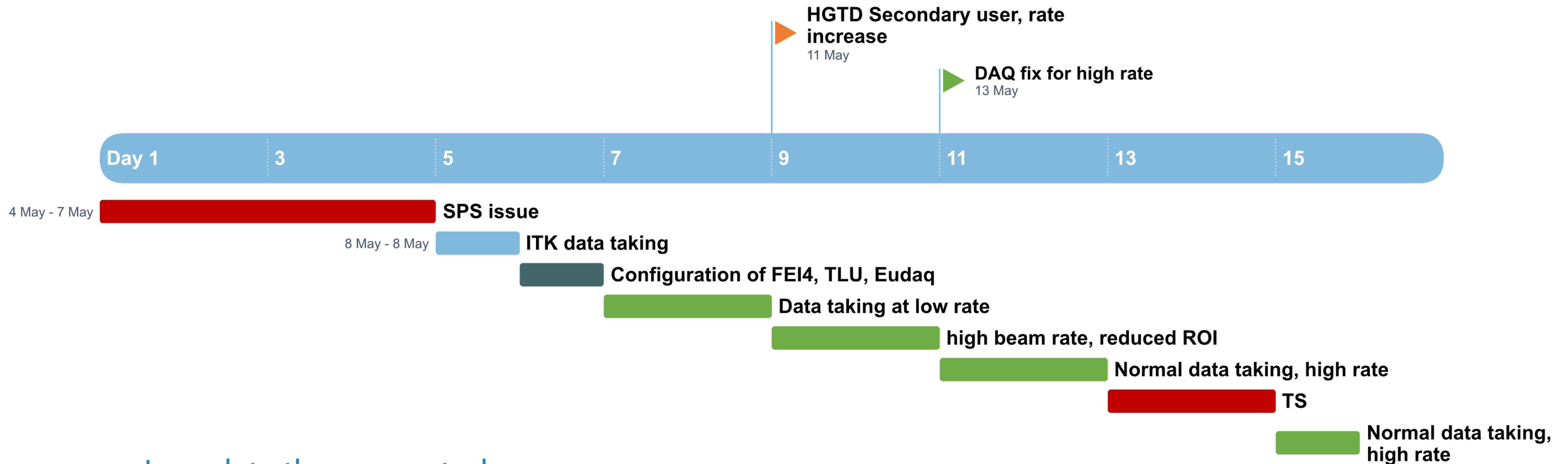
# ATLAS HGTD @H6A, MAY 2022



# ATLAS HGTD @H6

- ▶ **HGTD:** ATLAS phase-II upgrade project (installation in LS3)
- ▶ Several reviews in 2022 on sensors, ASICs, modules → these tests are critical
- ▶ DUTs:
  - ▶ **LGAD** silicon sensors (non-irr and irradiated): voltages of  $\sim 550\text{V}$  max (HV rack located in H6A) or **Modules** (LGADs+ASICs)
- ▶ Beam: pions at  $\sim 120\text{ GeV}$ , a few  $\text{cm}^2$ , intensity  $\sim \text{a few } 10^5$
- ▶ H6A (PPE-146):
  - ▶ **Chiller (on PI stage) + telescope (Aconite)** → EUDAQ 1.x/2.x
  - ▶ Use signal from scintillator(s) + external source for trigger: **TLU box**
  - ▶ Could need a second PI stage at the back-end of the setup – on a table
- ▶ **Chiller to -30 C** remote access from Control hut
- ▶ **N2 or dry air** to be placed inside box
- ▶ Readout in NI-crate (in rack) for telescope → remote access from control PC
- ▶ **Spill signal from SPS to read-out buffer from Oscilloscope**
- ▶ Tests were also performed using MALTA setup in 2021, can be used also in 2022





- ▶ Less data than expected
- ▶ Covered priority measurements



