

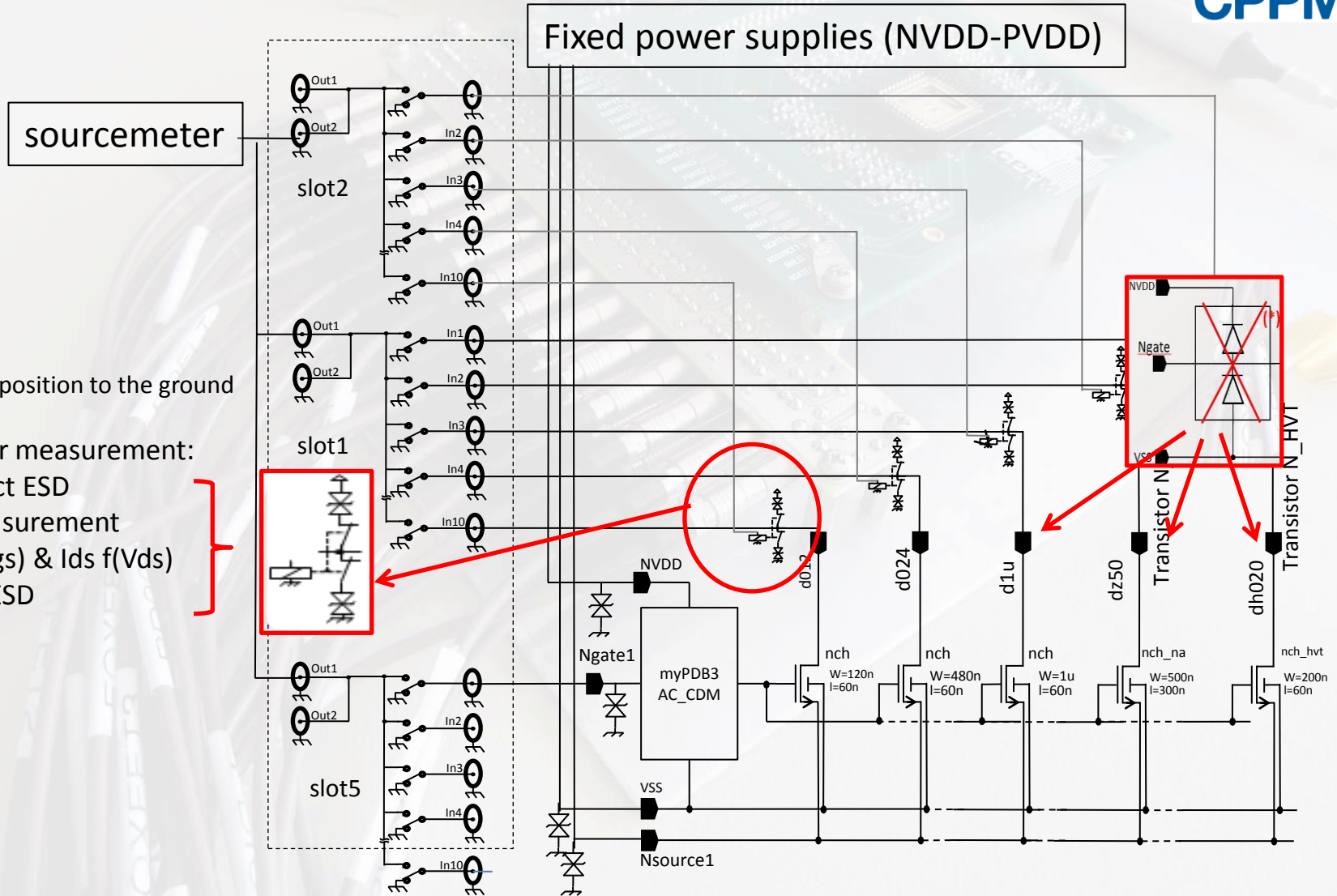
# Multipurpose test bench status

On behalf of the CPPM group

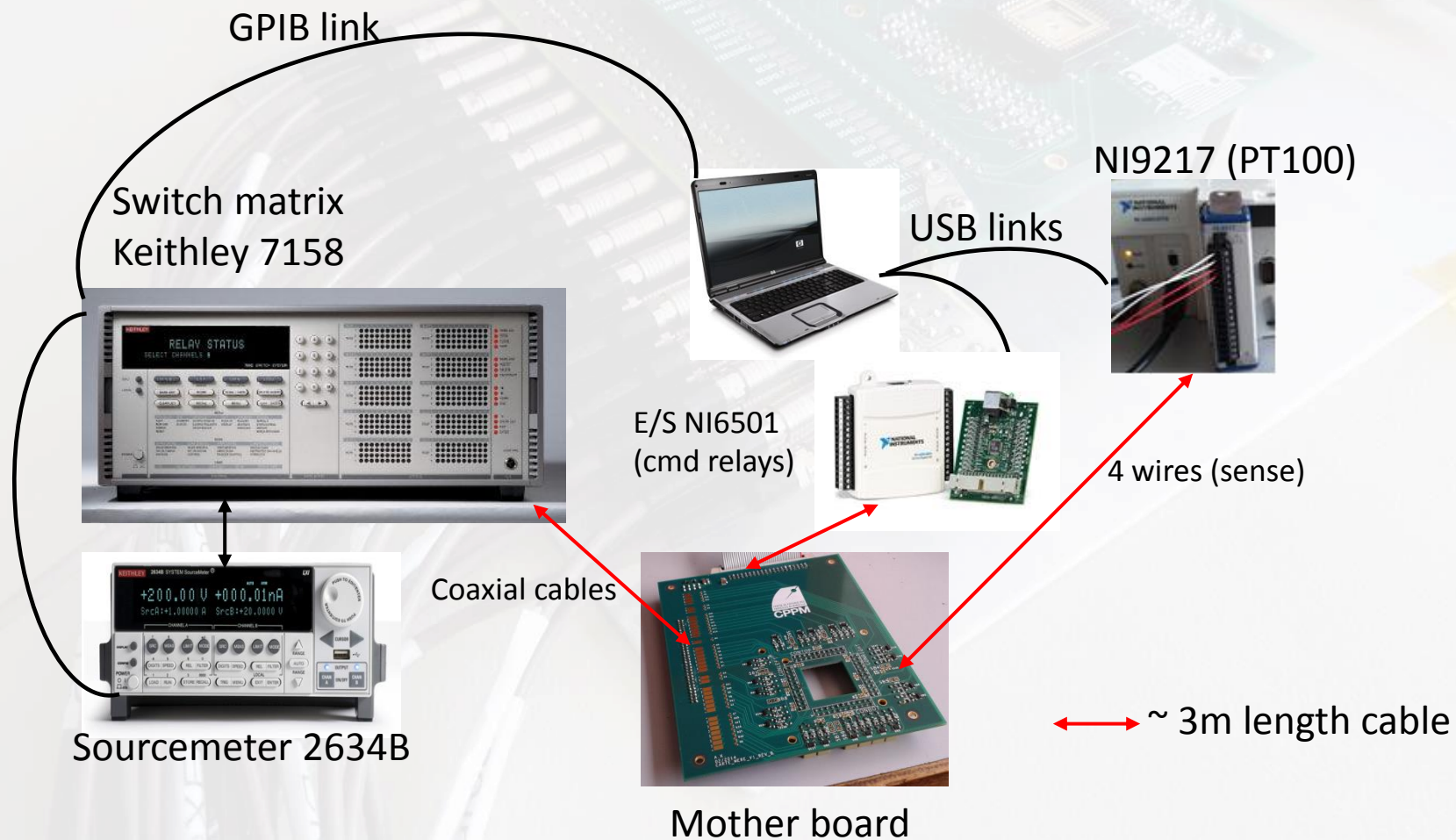
# Outline

- Basic schematic
- Test bench set-up
- Evolution of the test bench
- Mother/daughter boards
- conclusion

# Schematic

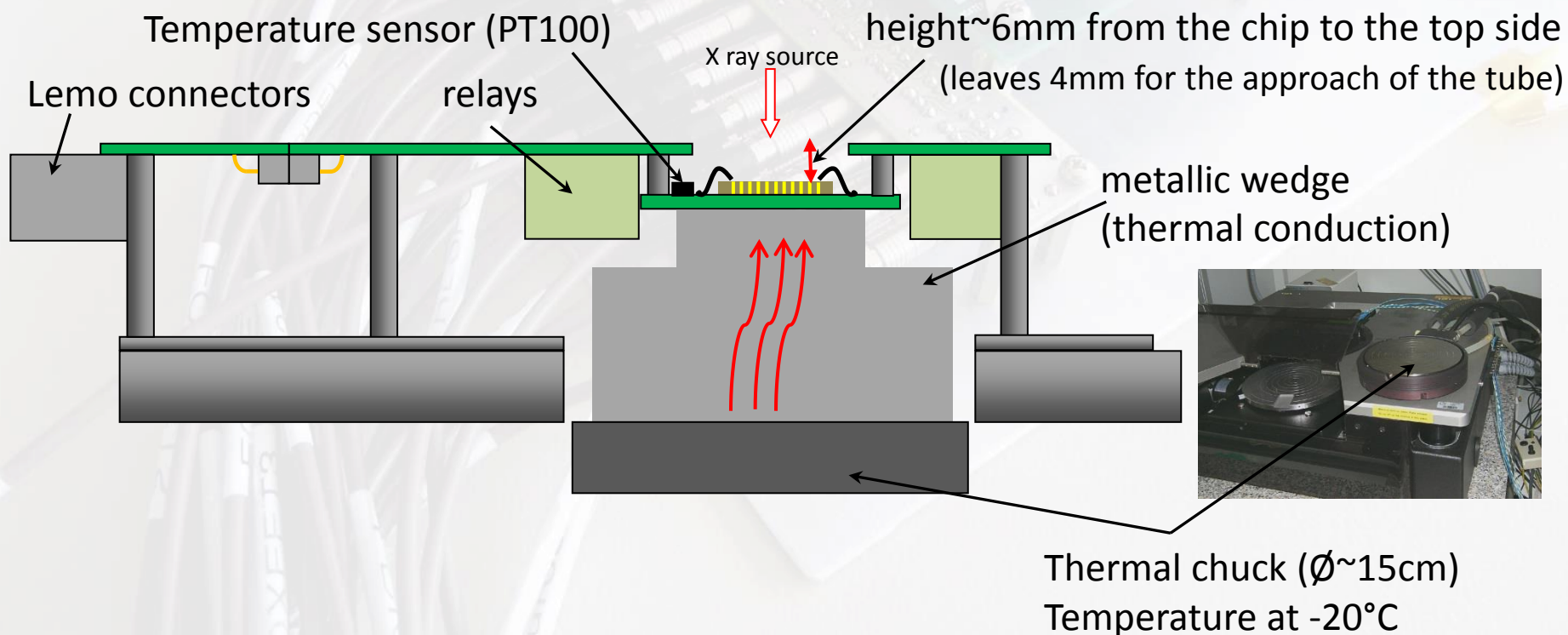


# Test bench set-up

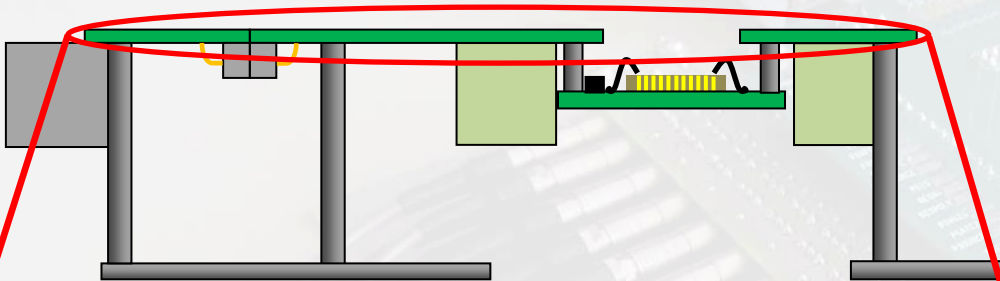


# evolution of the test bench

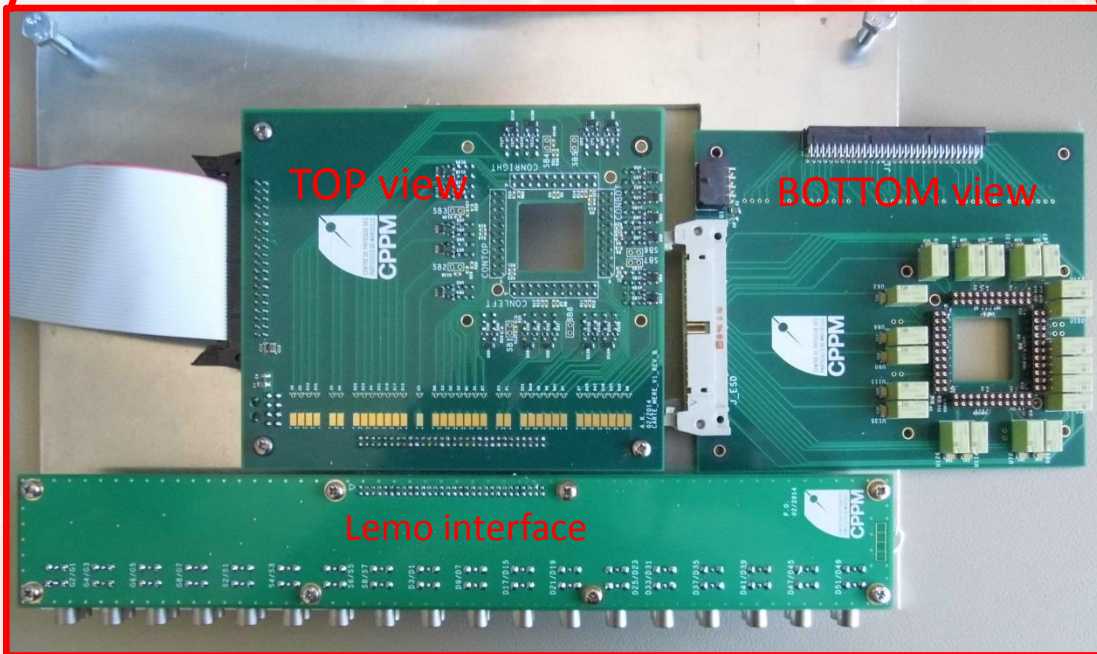
- Mechanicals modifications of the previous solution to do the tests at  $-20^{\circ}\text{C}$



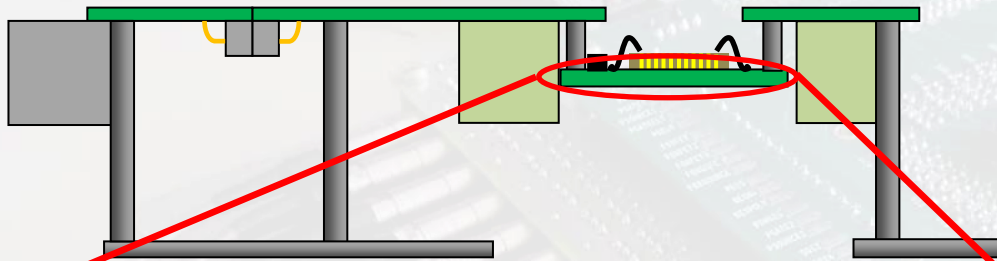
# Mother Board



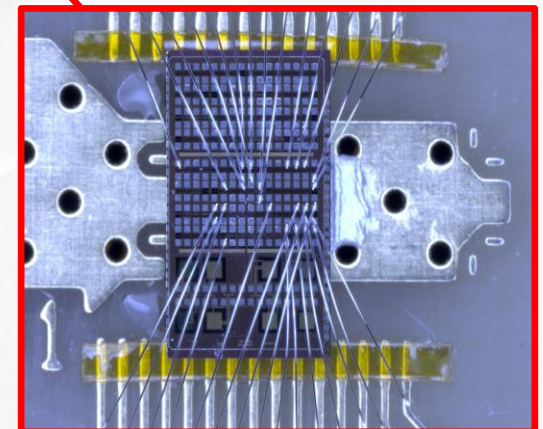
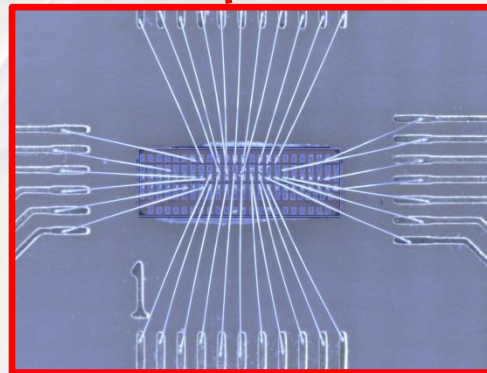
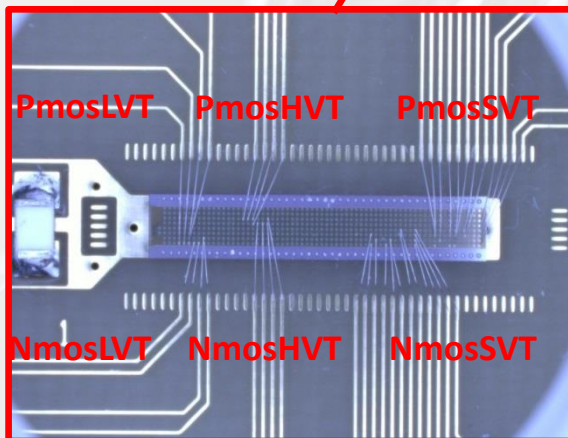
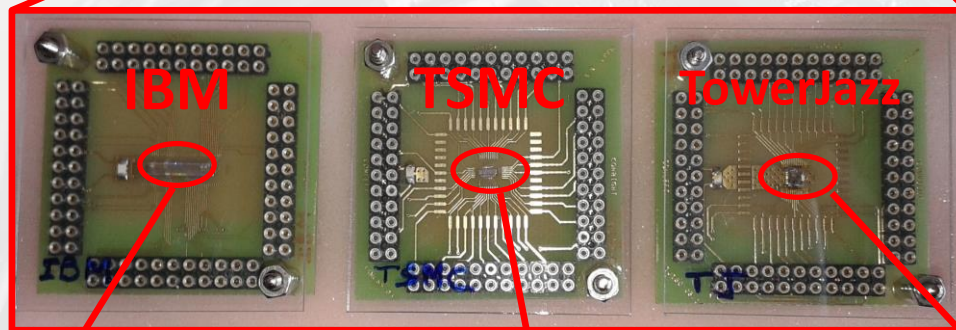
- 5 mother boards received
- Cabling OK (2 boards)
- 1<sup>st</sup> tests OK
- Lemo interface
  - Compatible with the old Keithley Matrix (7002 + 7158 low current scanner card)



# daughter boards



- 6 mother boards received from CERN bond lab
- Cabling seems correct for the both



# conclusion

- All the modifications for the cold tests are integrated:
  - Mechanical system fits with the installations of CERN,
  - Temperature monitoring,
  - sub-programs seem corrects, implemented in the main software (LabView).
- Integration of the new matrix (Keithley 707B) is in progress:
  - New PCB Interface with triaxials connectors
    - high measurement accuracy expected (gate current, ...)
  - Software adaptation, cabling modification for this new interface
- Evolution to a “multi-devices” test bench.
  - High universality , only redesign a daughter board or find a bonding adaptation to test an other chip.
- First irradiation tests are planned during this summer