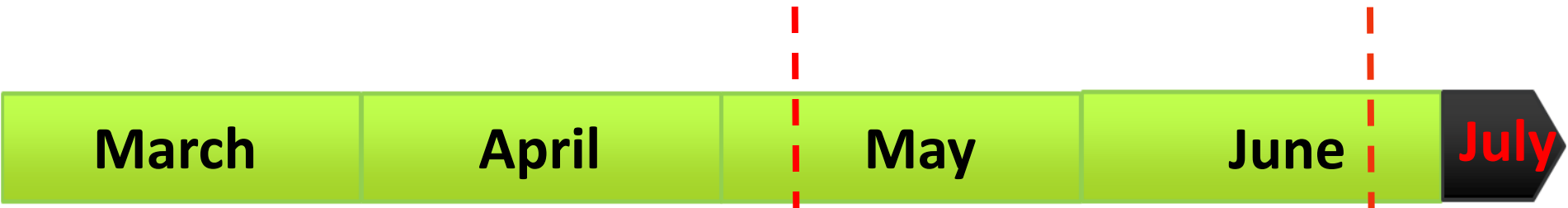


# Road to SiD Test beam at LNF (Frascati) BTF

## 23 - 30 June.

22 June DEAD LINE



**March:** Set-up the DAQ acquisition system.

**April:** design and assembly the frame for the SiD.

Work on **SID Patch Board** ( if they are ready)

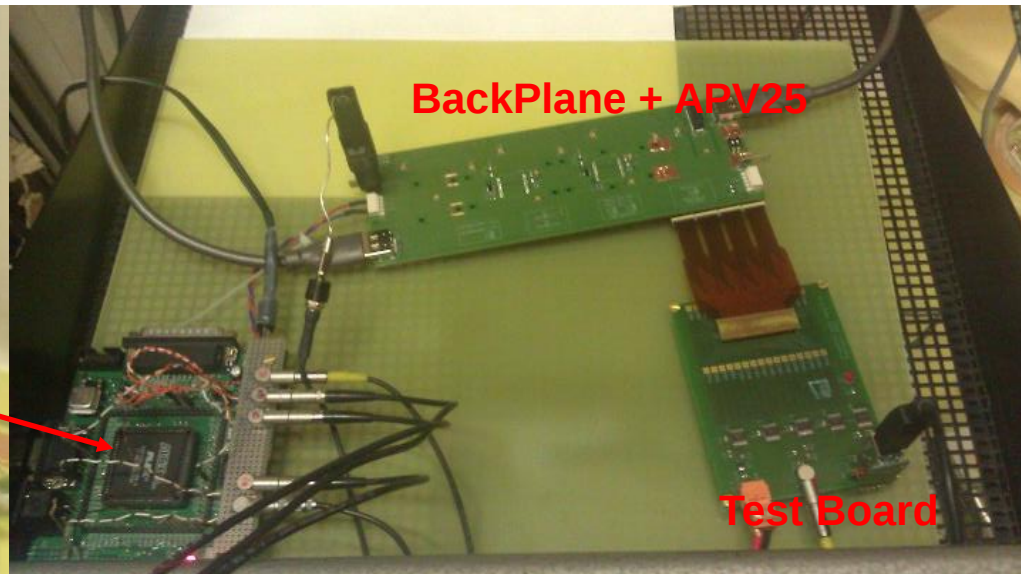
**12-30 May:** Last usefull period for wire-bonding SiD over the PCB (without Patch)

**June:** Assembly of electronics parts over the PCB (APV25 connector, BIAS circuit etc)

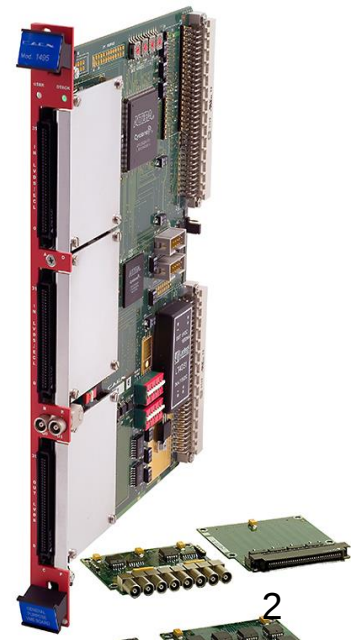
**TEST BEAM (23-29 June)**

|                             |         |
|-----------------------------|---------|
| Energy Range e <sup>-</sup> | 500 MeV |
| Max. Repetition Rate        | 50 Hz   |
| Particles/Pulse             | 1       |

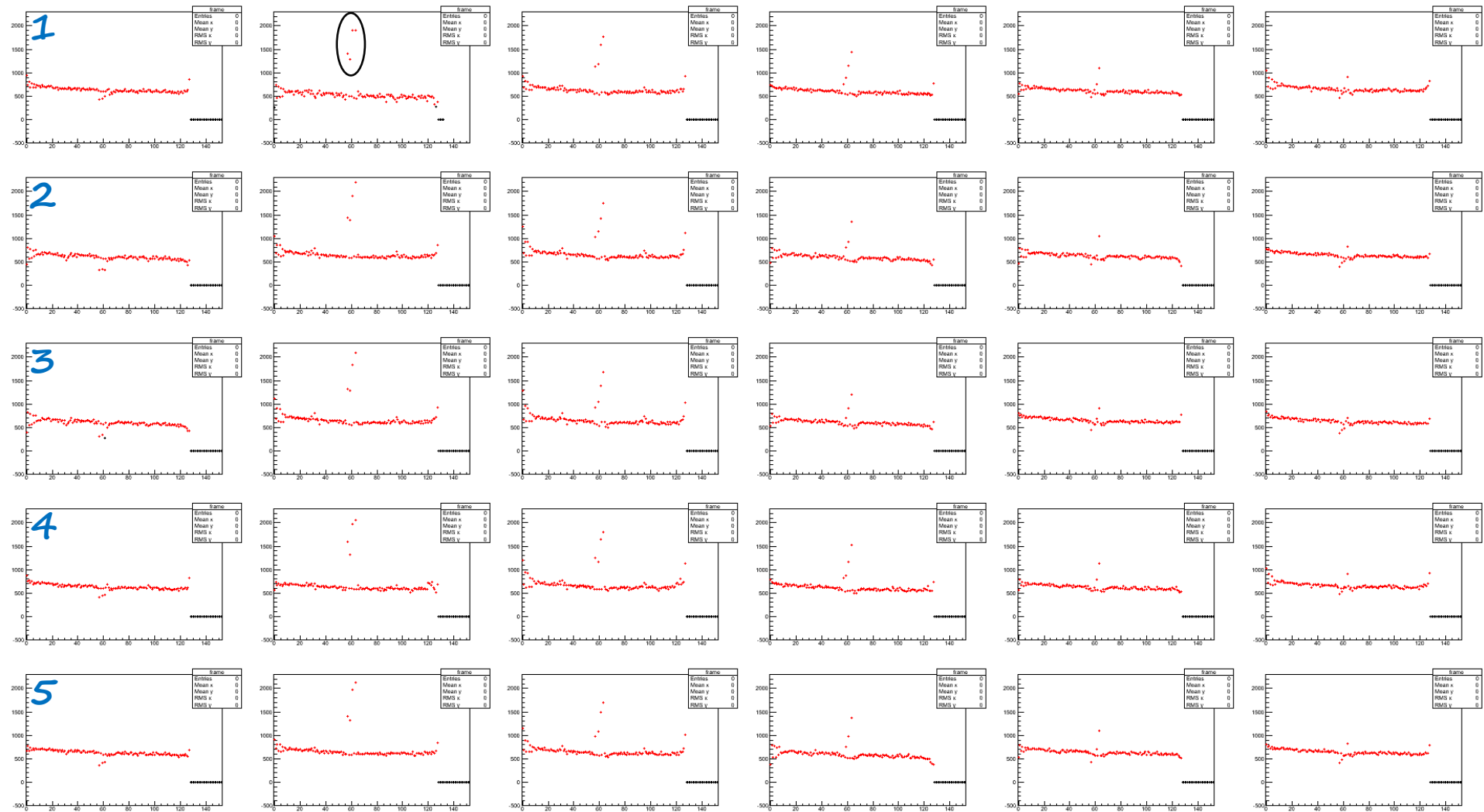
# DAQ Sistem



**Upgrade :**  
From Stand-Alone FPGA  
to a VME FPGA



# APV25 Response at 1 pulse MIP



25 APV25 boards to Test ( we need 20 APV25 board for the test in June)  
Test cables, connection, backplane and adaptors.

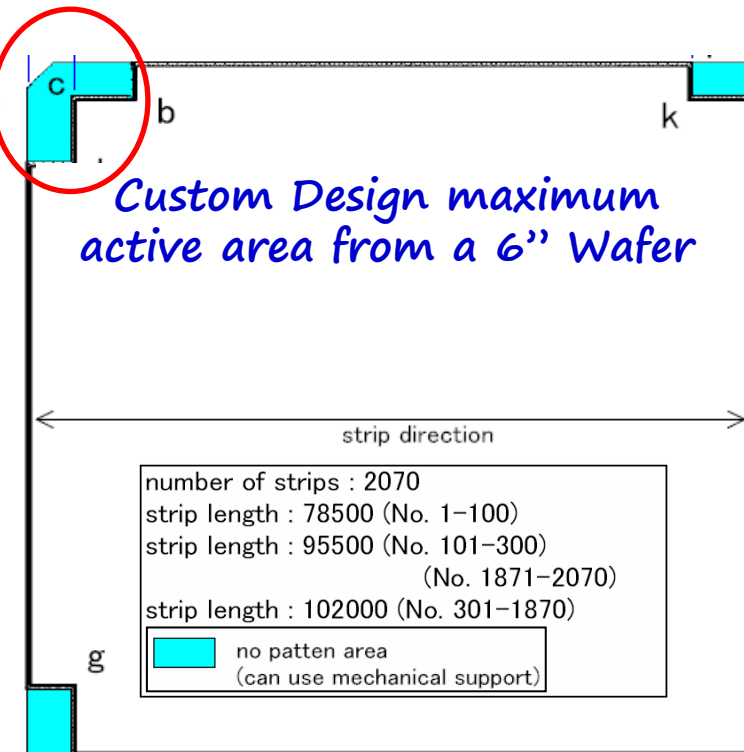
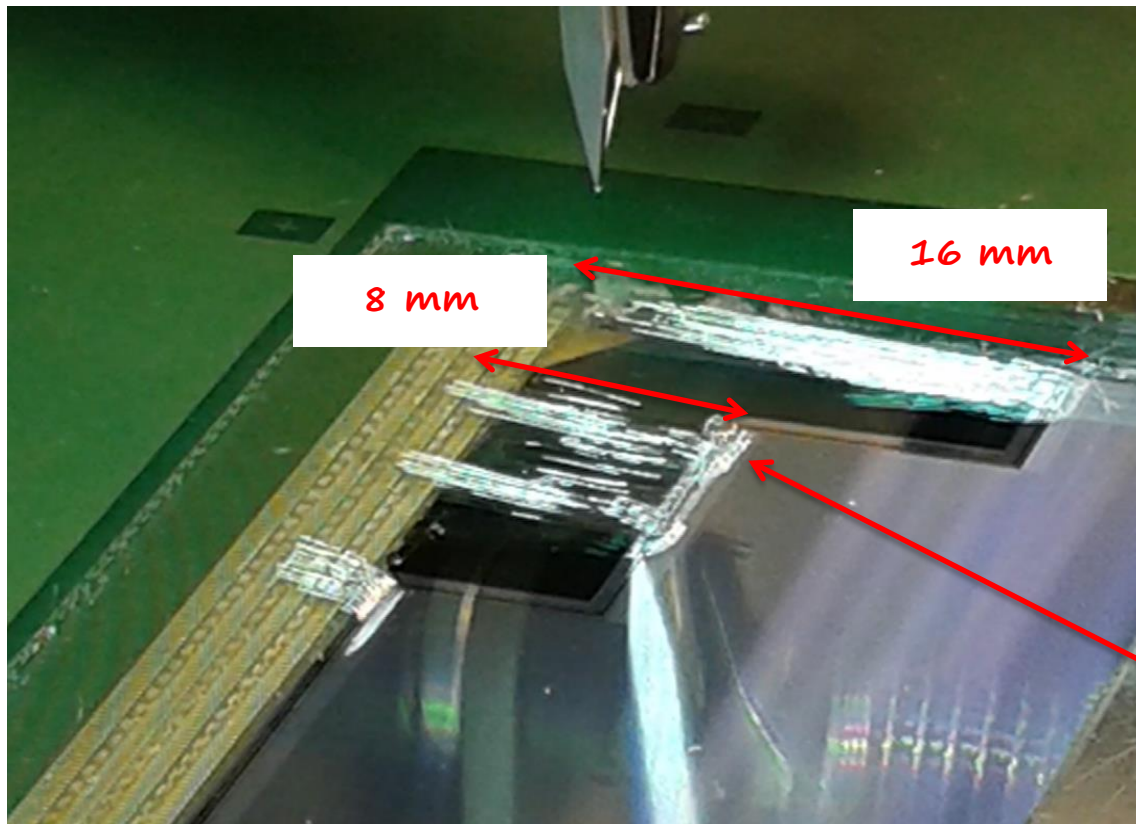
# Frame for SiD



Customizable Bosch  
Aluminum Rail for the  
SiD frame (Prototype)

# *Silicon Patch Board*

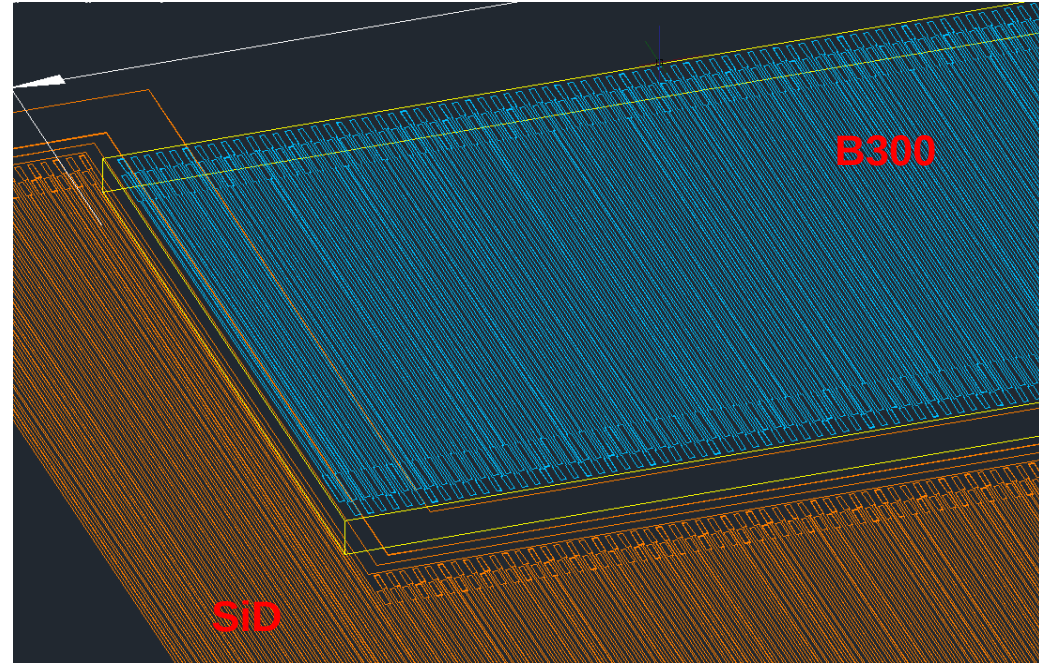
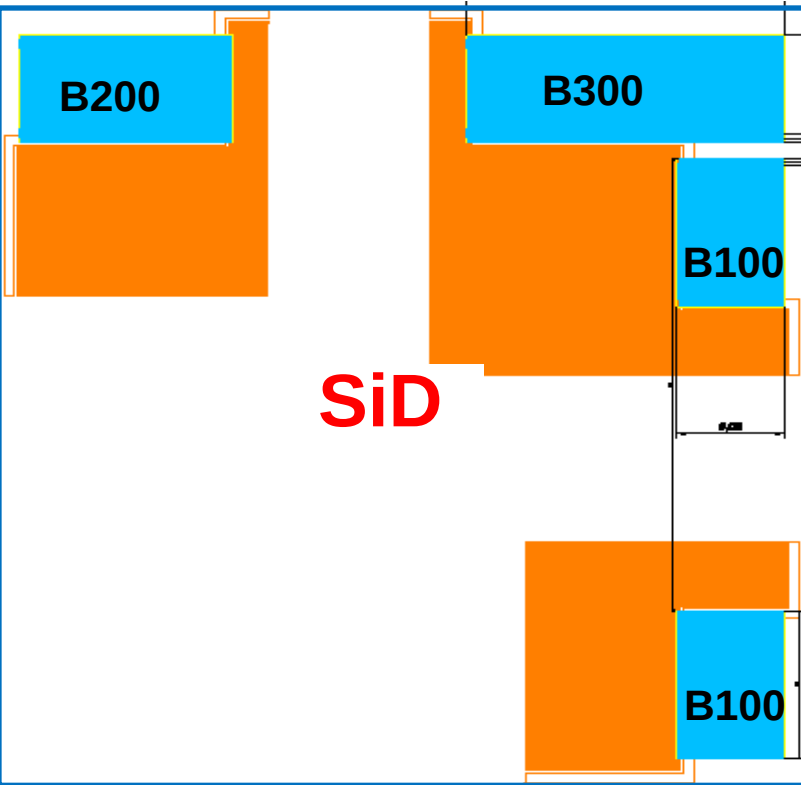
# Possible Problems



Short Bonding  $\approx 4$  mm **OK!**

Long Bonding  $\approx 8 - 16$  mm  
(**Problems:** possible wire collapsing, wire tilts, with shorts as a consequence)

# Silicon Patch Board design



## Specific:

300  $\mu\text{m}$  thickness

50  $\mu\text{m}$  pitch (as SiD)

Made by FBK foundry (Trento, Italy)

Mask Design is already done

Arrival time: May

# Assembly

## Improvements:

Improved planarity of PCB

Improved stability of the SiD holder during the wire bonding.

## Assembly time:

3 weeks for glue SiD on the PCB and the wire bonding of the SiD strips. (May)

Add the Polarization circuit and test SiD polarizazion. (early June)

Assembly of male connector for connect PCB and APV25 boards. (mid June)

**Everything has to be ready for the 22 June!!!!**