



VIII FOOT Collaboration Meeting

10-12 June 2020



Introductory Remarks



Vincenzo Patera





Highlights



- Completed the ESA data taking in February with emulsions. Analysis is improving, hoping for quick result publication
- Several beam times are in front of us: CNAO, GSI, HIT. The season of the test beam is almost over, we are going to deal with our main data takings...
- **The new magnet bid is out, we will have some details from Andrea Moggi (thanks again!).**
- Our scientific production is now starting.. Some papers are out, others are to come. More info from Mauro Villa
- A large part of the electronic detector is still to be finalized, and some subdetectors are now in the critical path.





Some words about beam times...

The timeline of the next beam times in the next two years is getting more and more crowded. The test beams are now turning into data takings:

- The beam time request to ESA is out: high energy beams for radioprotection in space at GSI: the beam could arrive at ney time 2021-2022 (likely in late spring)
- Beam time request to BIO-PAC: PT focused data taking assigned by BIO-PAC for 2021-2022
- CNAO data taking: our first target is late 2020, further data taking must be submitted to the future CNAO PAC
- Calorimeter crew is preparing a beam request for HIT-> unknown outcome, but could be a test beam extended to large part of FOOT-> physics results?



Some words about apparatus...

The emulsion part of our detector has been successfully built, exposed and now is in analysis phase.

However, we are approaching crucial data taking with electronic detector and the honeymoon with CSN3 could be rapidly come to an end

- The MSD detector should be early in the testing phase. Could it be ready for a test @CNAO?
- Calorimeter saga should now have an acceleration. A reduced size, but otherwise final, prototype with all the DAQ chain is expected by CSN3 at late 2020.
- The IT is heavily delayed. We should understand if the delay is getting a real showstopper for the magnetic region
- The magnet bid is out.. We have to cross our fingers!!!!



Milestones 2020

milestone	Date (2020)
Data taking GSI with emulsion setup using the final part of the ESA beam time	June
Test of first 2 planes of MSD detector at CNAO (TIFPA)	september
Building and testing of the Start Counter to be used in the RPS measurement at high energy	september
Complete test of the central unit of the calorimeter (9-16 channels)	october
Preliminary results of the 2019 GSI data taking emulsion run	october
Magnets procurement	december

Beyond the written milestones, we are expected by CSN3 to have a working detector for the crucial GSI data takings



But we are in business...



In spite of the difficulties (also the COVID stop of HW activity does not help) our analysis-software-publishing machinery is gaining momentum and robustness

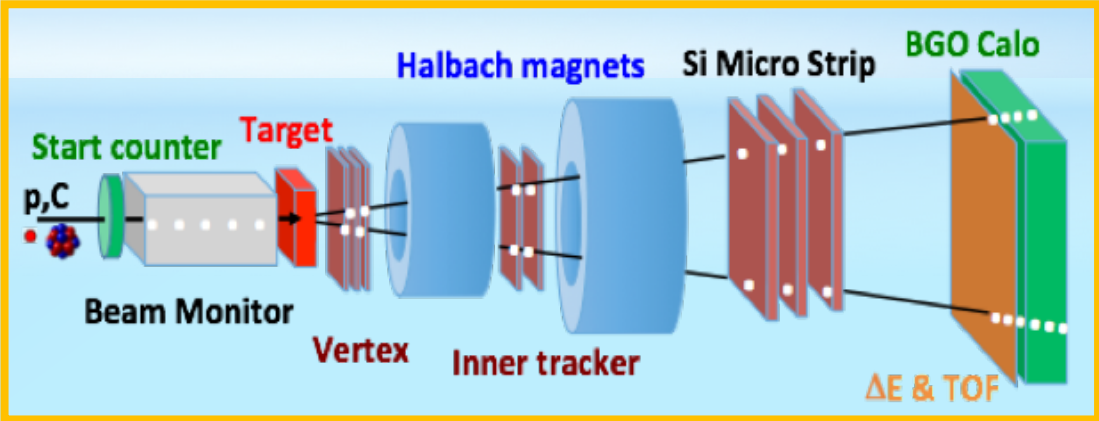
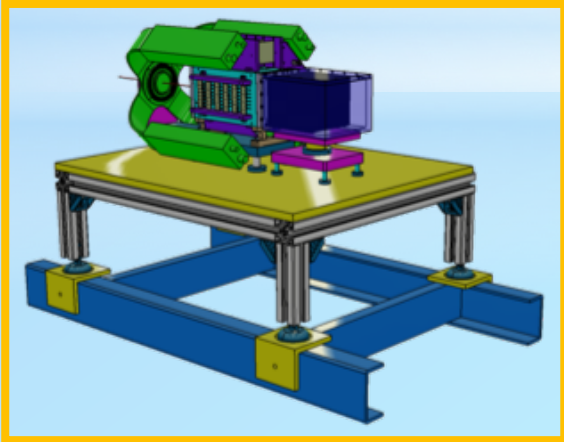
We should use this meeting to produce an updated time schedule for the experiment, taking into account the HW timeline

Two final, maybe off topic, items

- Next general meeting: I think it will be in person and it could be held in Starsbourg (if Chris and Marie agree..)
- Attending a meeting 2 days long remotely is tiring.. I beg all the speakers to strictly keep the time: be short and concise , so people don't fall asleep and we can share efficiently all the info
- **A big big big thank to Marie & Chris for the organization!!!**



Let's go !!!!!





Swimming across the river....



Similarly to runners just after the bending point we are at almost full speed but we have still in front of us a big deal of the effort

- ✓ Completion of the electronic readout (Magnets, ITR, MSD, calo)
- ✓ Final DAQ and mechanical integration.
- ✓ Develop a robust software infrastructure for analysis

From the Rome General Meeting



In the meanwhile:

- * finalize the emulsion analysis
- * test beam to calibrate the final sub detectors

With the final target:

CNAO data taking in 12 months!!!