Towards the data-taking @ CNAO

Giacomo Traini – Giuseppe Battistoni FOOT physics meeting <u>5 Oct 2022</u>



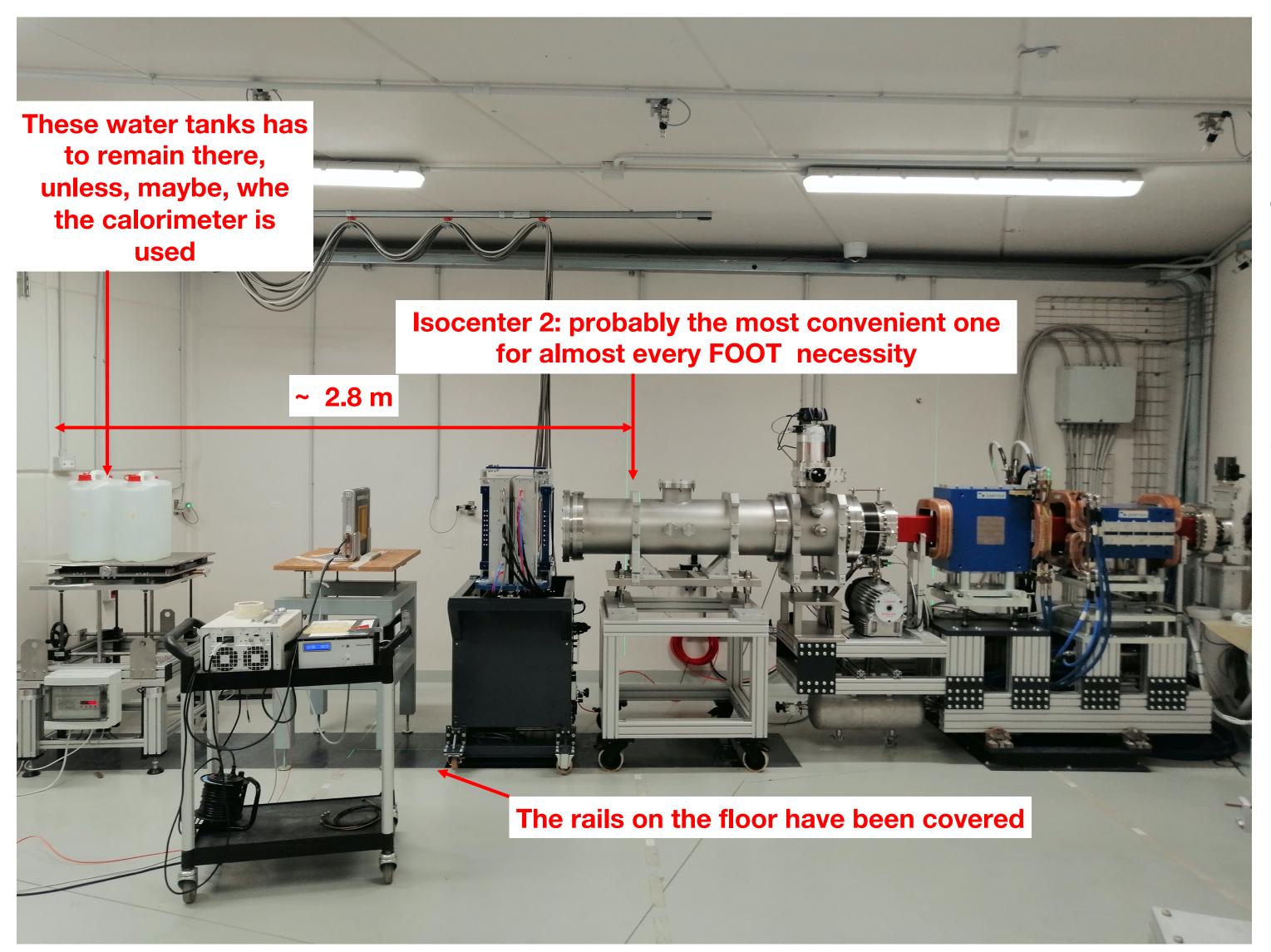


- The time slots for the FOOT data-taking in 2022 are the following:
 - **Sat. 12 Nov 14:00 22:00 8 h**
 - Sun. 13 Nov 14:00 22:00 8 h
 - Sun. 13 Nov 22:00 4:00 6 h
 - Sun. 4 Dec 22:00 4:00 6 h
 - Mon. 5 Dec 22:00 4:00 6 h
 - Tue. 6 Dec 22:00 4:00 6 h



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In 2022 we shall not have low intensity beam monitor.

This means that for low intensity:

- 1. There is no possibility to have x-y beam scanning
- 2. Feedback and check of the beam is up to us

Recent tests have however shown that, even at low intensity, the (fixed) beam is quite stable

Other isocenter configurations are possible. Not advantageous in general, expect Isocenter 1 (fixed beam) and maximum distance to the wall



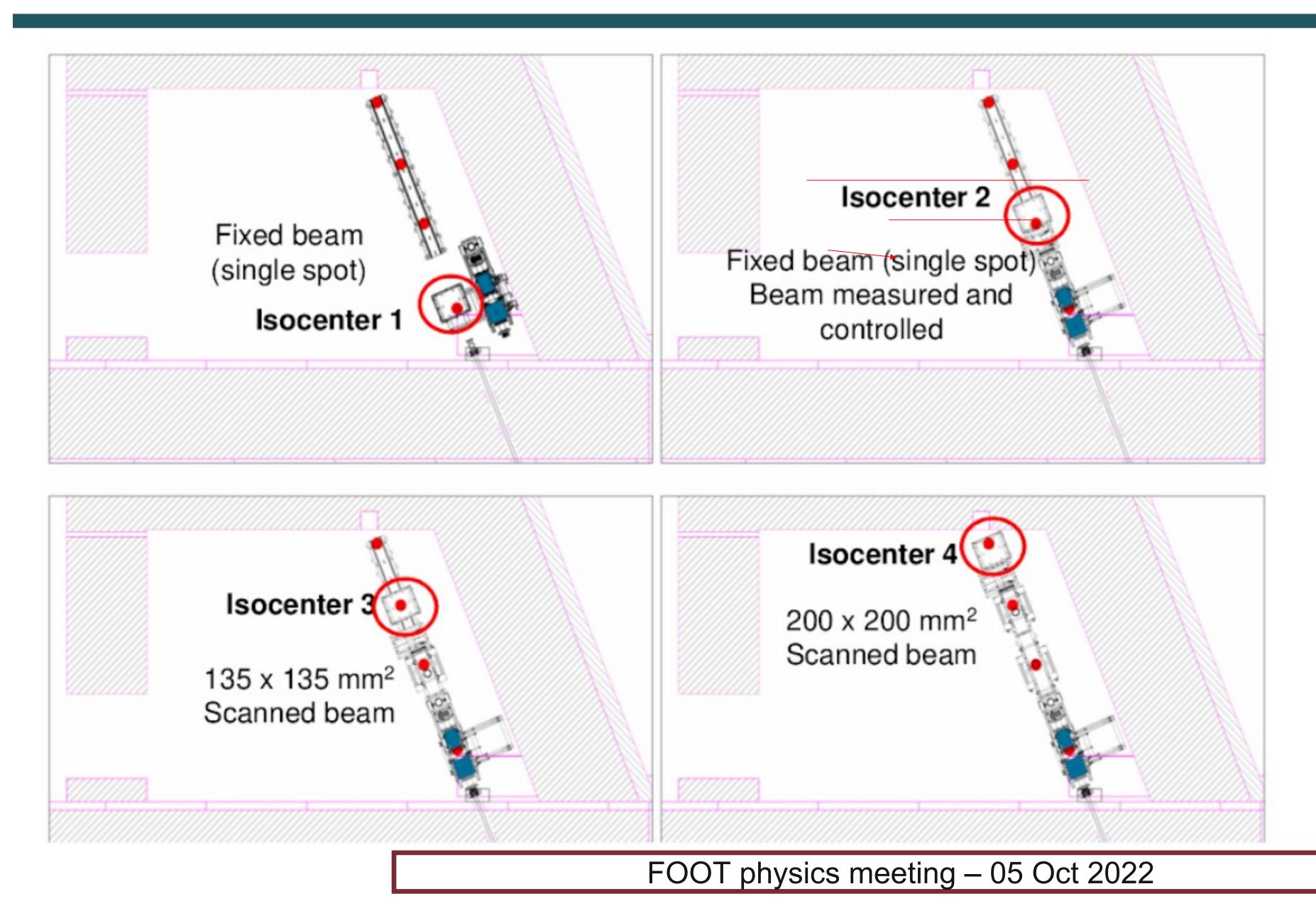








Other possible configurations

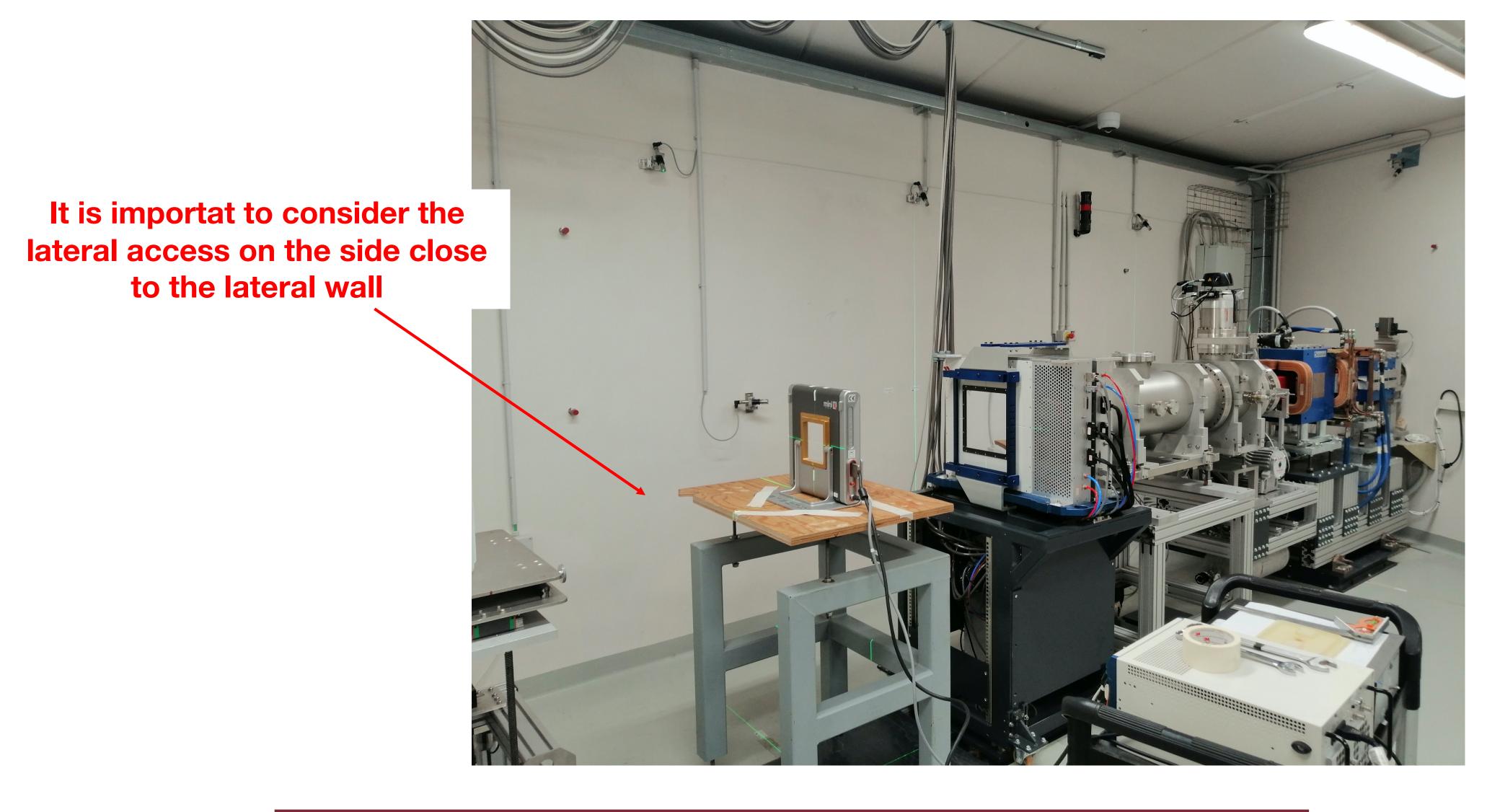




Remind that beam control and scanning at low intensity is not possible at present









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- Fundamental questions:
 - How many kind of tests are requested?
 - Which setup configuration and beam arrangement are needed for each test? (do we need isocenter configs different from isocenter 2)?
 - Which kind of equipment (FOOT or non-FOOT) is necessary? What is the status of necessary mechanical supports?
 - How do we fit all requests in the proposed time slots?
- We should try to define these things quite soon. Can we make within Oct 15?
- It's the chance to start bringing things to CNAO. There are surely fundamental items to be considered for all purposes: Start Counter + WaveDag, Dag, Pre-target mechanics....





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- Access @ CNAO: o safety and radioprotection status of each involved person have to be verified
- Detailed design and documentation of each test setup have to be provided in advance



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