SITE OF THE INTERACTION REGION MOCK-UP IN LNF LABORATORY

The site to assembly and to test the interaction region mock-up was found within the LNF at Building 5A.

In this building there is the mechanical workshop that belongs to the mechanical engineering group of the accelerator division. In this area there is the metrology laboratory, the place chosen as ideal for the assembly and test of the interaction zone mock-up for FCC project (fig. 1).

Next slides:

- Geographical position with respect the LNF;
- Size and current status;
- Upgrade;

Fig. 1

GEOGRAPHICAL POSITION WITH RESPECT TO THE LNF

Fig. 2

SIZE AND CURRENT STATUS

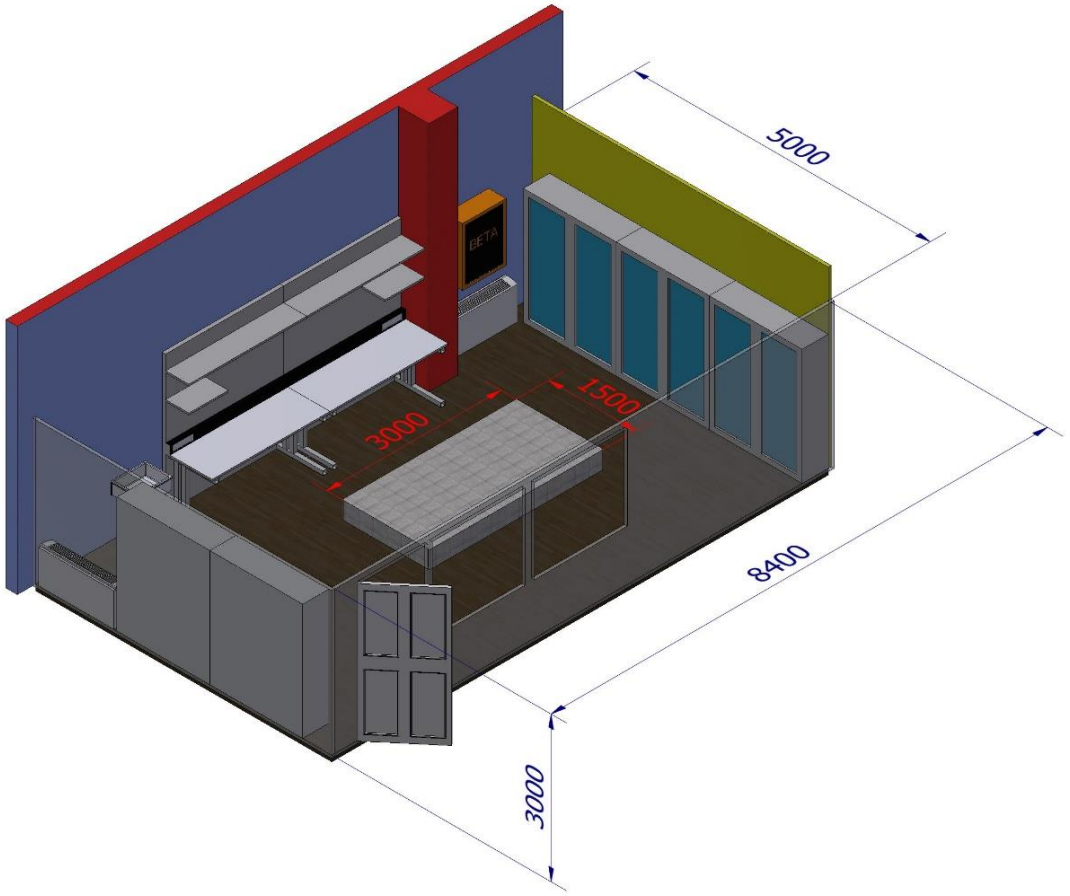

Fig. 3

Room dimensions:

- Length: 8400 mm
- Width: 5000 mm
- Heigth: 3000 mm

Inside the room there is a granite table which will be used as a support and working surface for the interation region but for measuring intruments also:

- Length: 3000 mm
- Width: 1500 mm

Therefore there is a work space of approximately 2 meters between the walls and the granite table. There are currently cabinets and work tables that can be removed if necessary.

Fig. 4

- Currently the room has no roof.
- There are cabinets, work tables, measuring instruments, tools for mechanical disassembly and assembly operations, water and compressed air systems.
- An air thermalization system is also missing.
- An overhead crane is missing (but there is space for a truck with a crane to enter the mechanical workshop, up to the side of the room).

UPGRADE

In order for the room to have sufficient technological parameters to allow the assembly and testing of the mock-up, improvements are necessary:

- Covering the upper part with a removable module roof, in order to ensure an environment protected from dust and capable of being thermalised.
- An air thermalization system capable of ensuring a constant temperature.
- A dry air system necessary for cooling the system (good news, in a short time the compressed air system will be replaced by a new one which compresses the air originally at -70°C, a problem already virtually solved).