

MUonE mechanical stability requirements

Carlo Ferrari

INFN-Pisa & CNR-INO & CERN

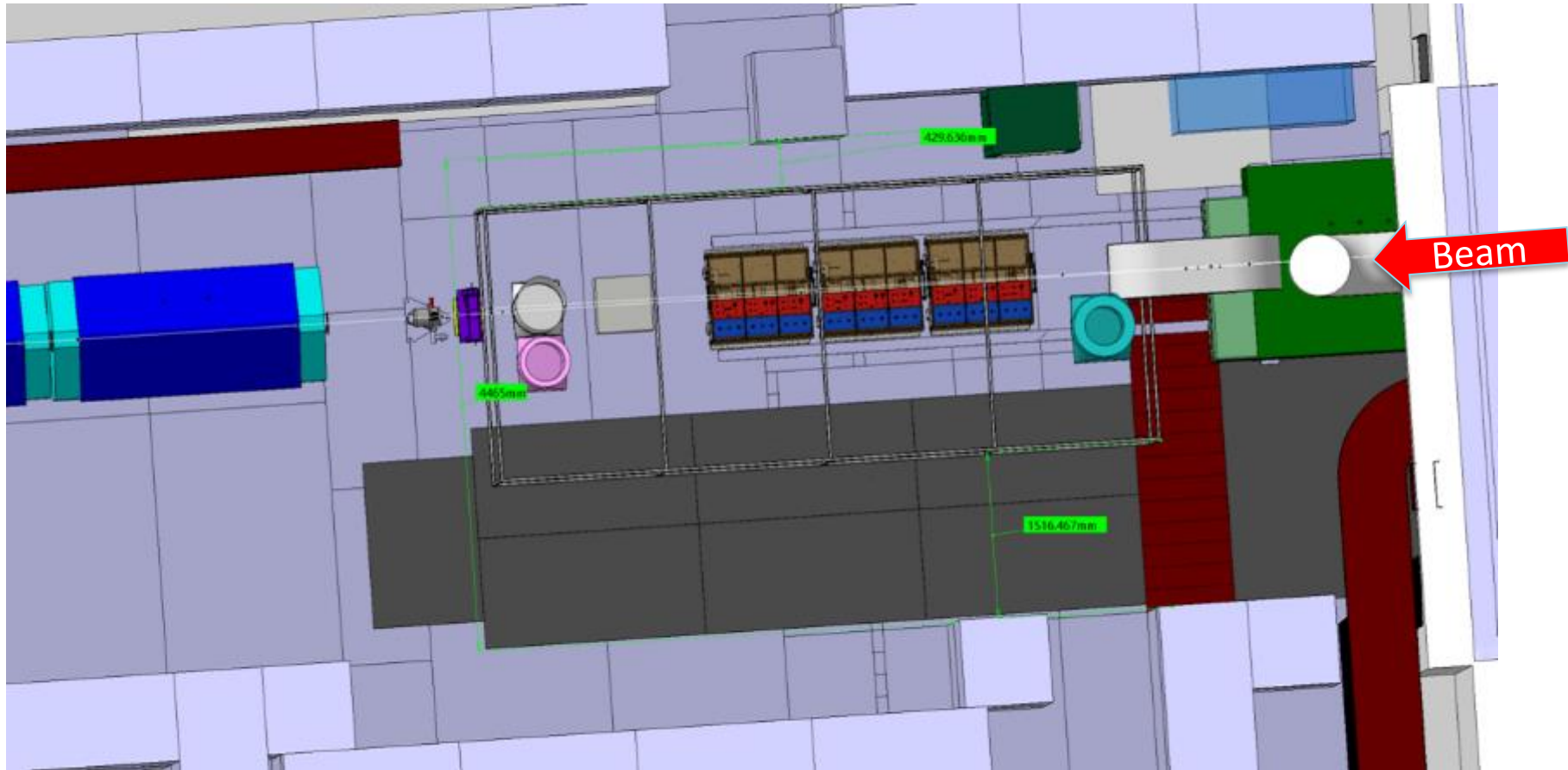
c.ferrari@cern.ch

carlo.ferrari@ino.cnr.it

PBCacc - Conventional Beams WG - EHN2 technical meeting #9

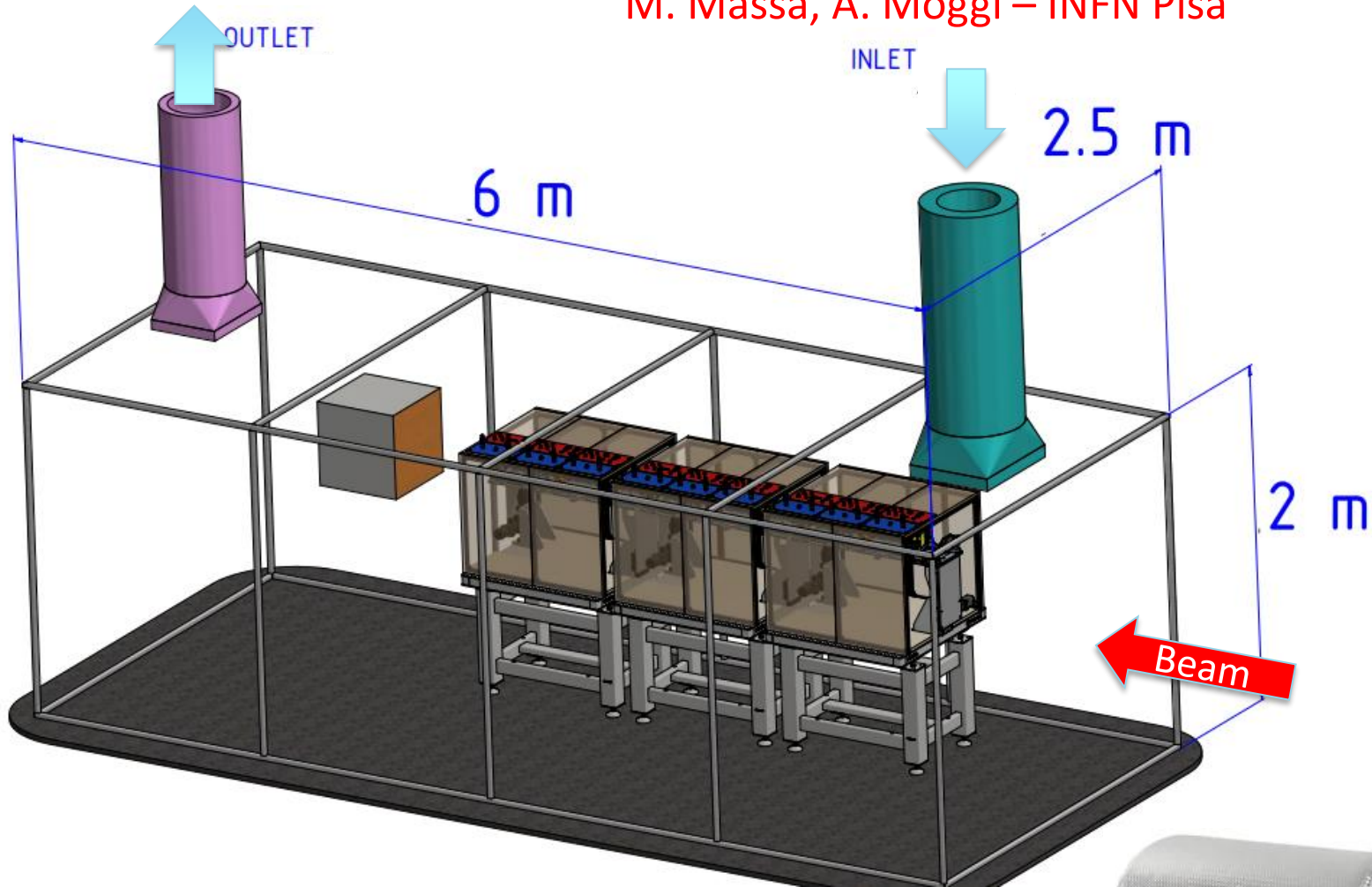
23 February 2023

MUonE installation



The «tent»: The integration model

M. Massa, A. Moggi – INFN Pisa

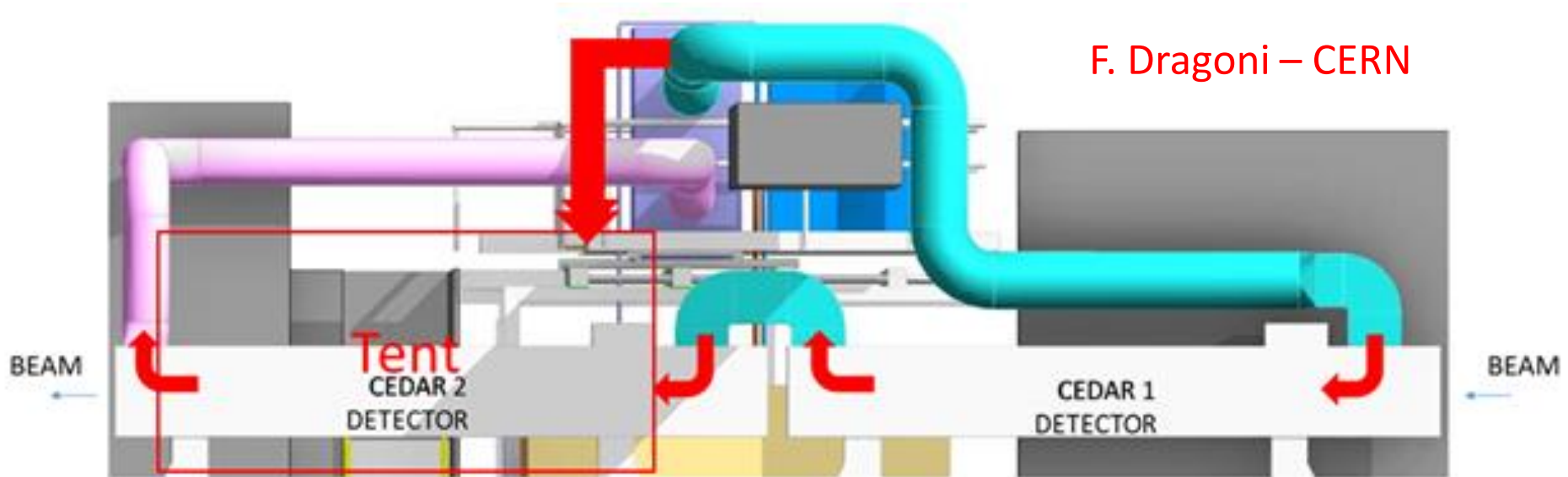


Insulating material: Double Bubble Insulation



The «tent»: The integration model

F. Dragoni – CERN



- Air $T = 18 \text{ }^{\circ}\text{C}$ (The tracking stations are set to $18 \text{ }^{\circ}\text{C}$)
- Mixing ventilation
- Duct modification
- C&V will take care of it (two months notice)

Preliminary plan



We need to install:

- The supports for tracker stations and the calorimeter (Thorlabs frames + DESY table): 1 day
- The structure of the tent: 1 day
- The new ducts: 2-3 days (two tasks: install scaffolding, install new ducts)
- The tracker stations and the calorimeter: 1 day

Preliminary plan



- 2023 beam time has not yet allocated for MUonE
- It will be 2 or 3 weeks
- There is a risk of spending most of the beam time on installation
- I would like to install what is possible during MD periods leading up to our beam time.
- Thus, we need to start the installation a several weeks in advance (if CEDAR zone is free)

Preliminary plan

Sequence, assuming beam time in August :

- The supports for tracker stations and the calorimeter (Thorlabs frames + DESY table): early June
- The structure of the tent: late June
- The new ducts: July (2 MD for the two tasks)
- The tracker stations and the calorimeter: day 1 of beam time

Long term goal



- First of all we have to write the TDR and then get the approval of the experiment
- Preliminary physics measurement with 10 stations before the LS3 (2 months beam time)
- Final experiment with 40 stations, few months of data tacking, after the LS3 (6 months beam time)

The end



Services b.888 EHN2

- reglette (10x 6A)
- coffrets 1x 16A + 4x 10A
- Prise 1x 32A
- 2 outlets Ethernet (=1 socket)
- Gas panel
- Grounding

