

IFNC meeting
Annecy, January 29, 2024

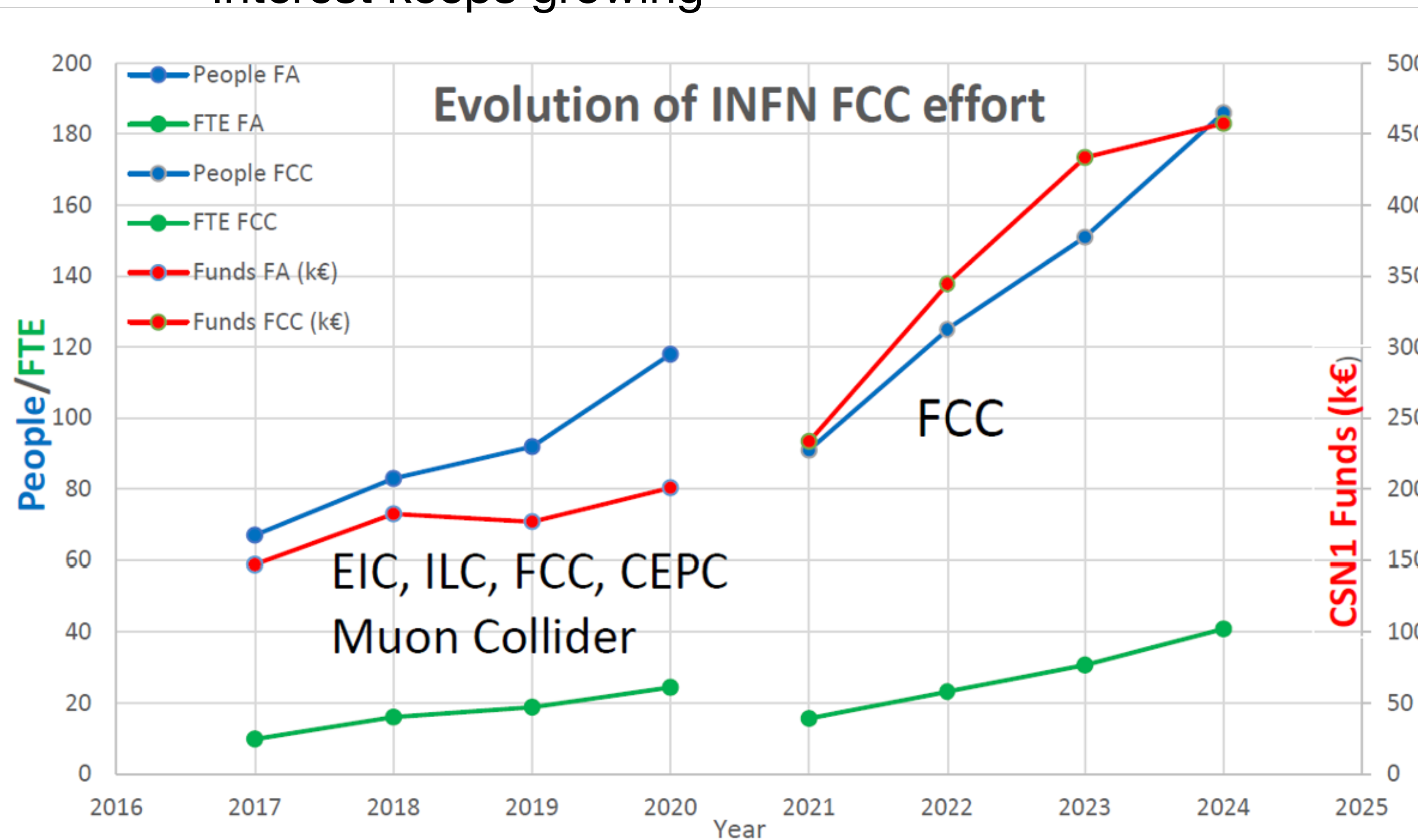
Italy achievements in PED in 2023

P. Giacomelli
INFN Bologna

- Italy has **19** active **INFN sections**: Bari, Bologna, Catania, Ferrara, Genova, Lecce, LNF, LNL, Milano, Milano Bicocca, Napoli, Padova, Perugia, Pisa, Pavia, Roma 1, Roma 3, Torino, Udine
- 156 Researchers (**34.50 FTE**), 24 Tecnologi (**3.80 FTE**), 4 Technicians
- Expect a steady increase of personnel over the next years

- Manuela Boscolo (LNF) co-head of Machine Detector Interface
- Patrizia Azzi (PD) co-head of Physics Performance
- Marina Cobal (UD) member of FCC Steering Committee
- Manuela Boscolo (LNF) deputy chair of the FCC Collaboration Board
- Paolo Giacomelli (BO) member of Speakers Board
- Roberto Tenchini (PI) member of Scientific Advisory Committee

- Line of research on future accelerators created in 2016
 - Interest keeps growing



More resources from:

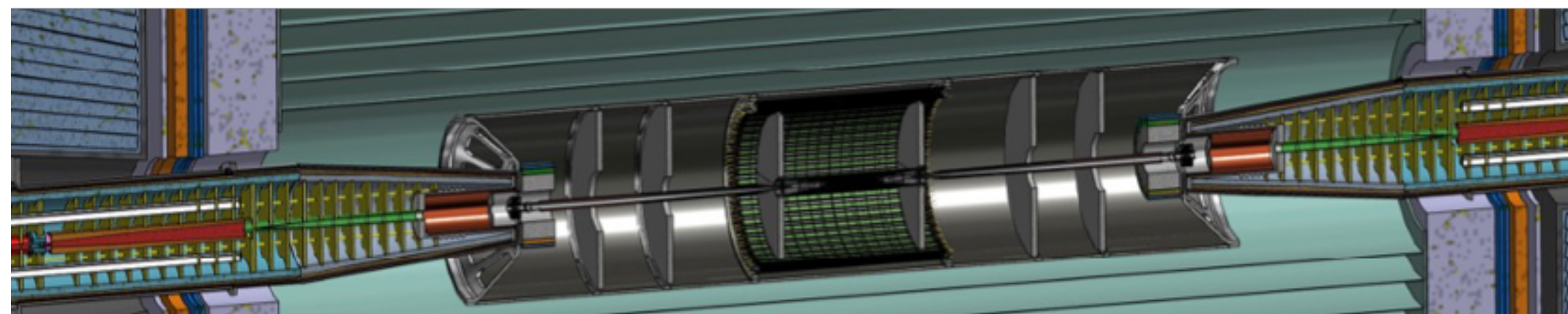
► CSN5 grants

- ARCADIA
- Hidra2

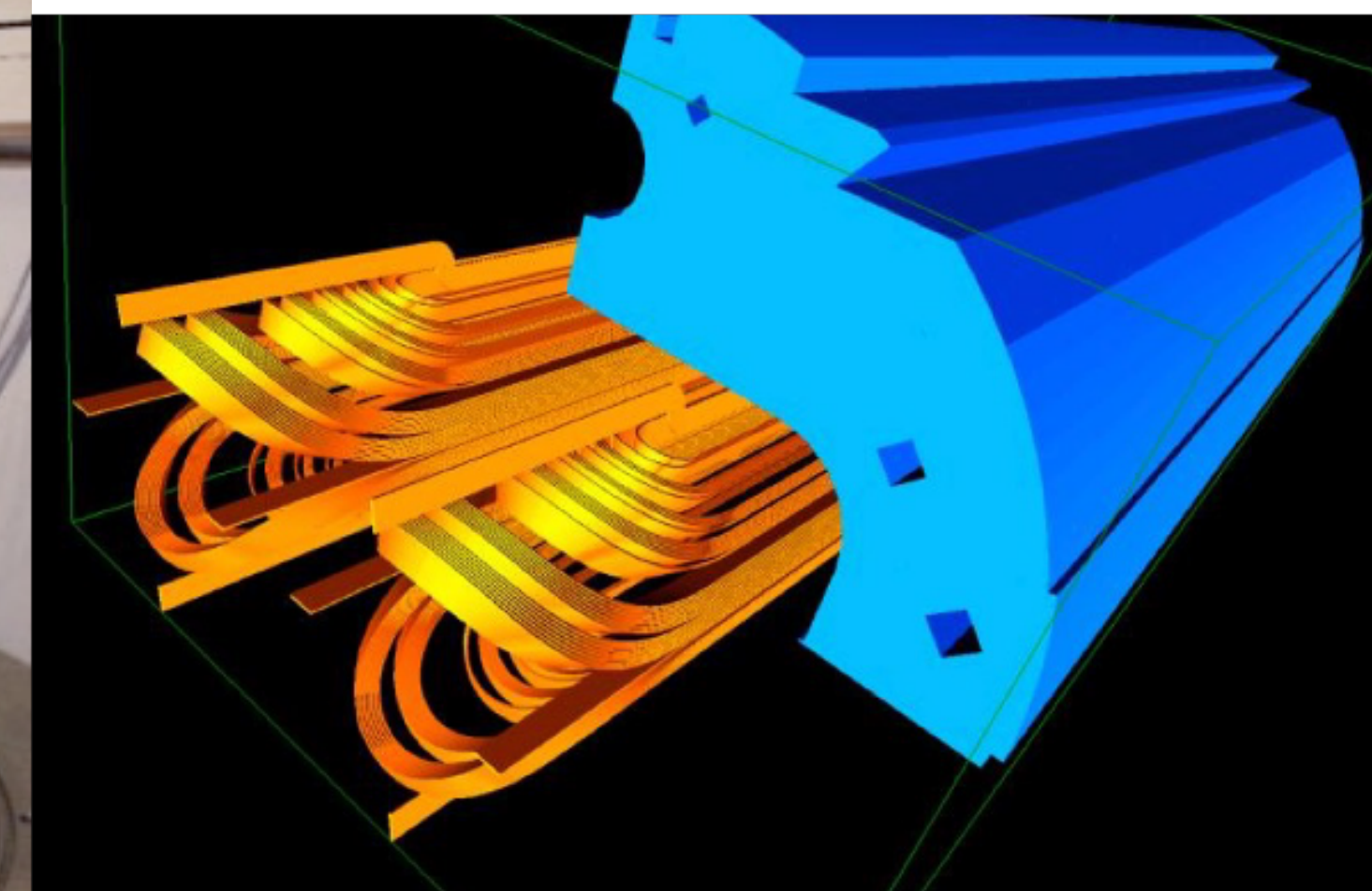
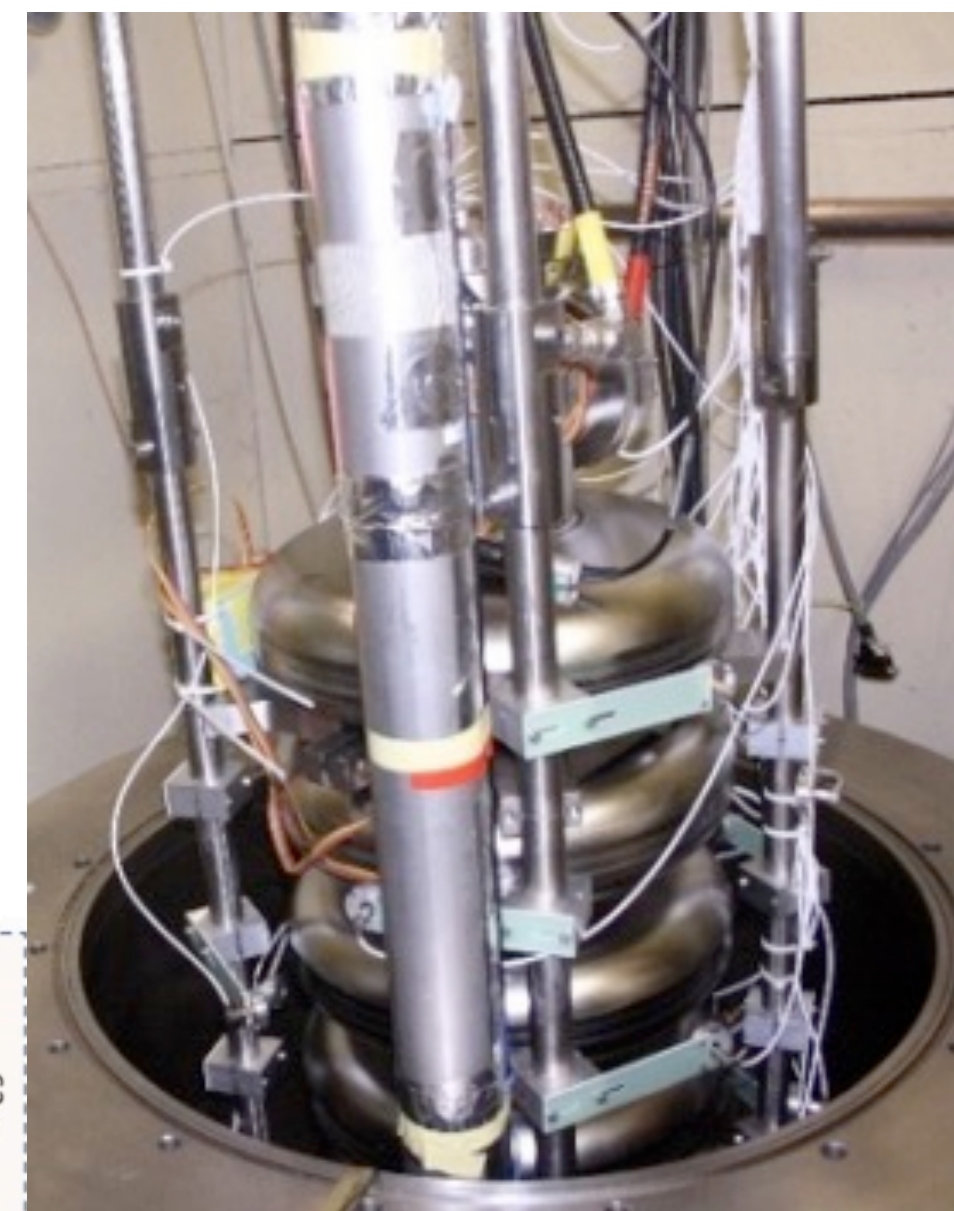
► EU grants

- EuroCircol
- FCC-IS
- AIDAinnova
- Attract, μ RTubes
- EURO-LABS
- Eurizon
- FEST

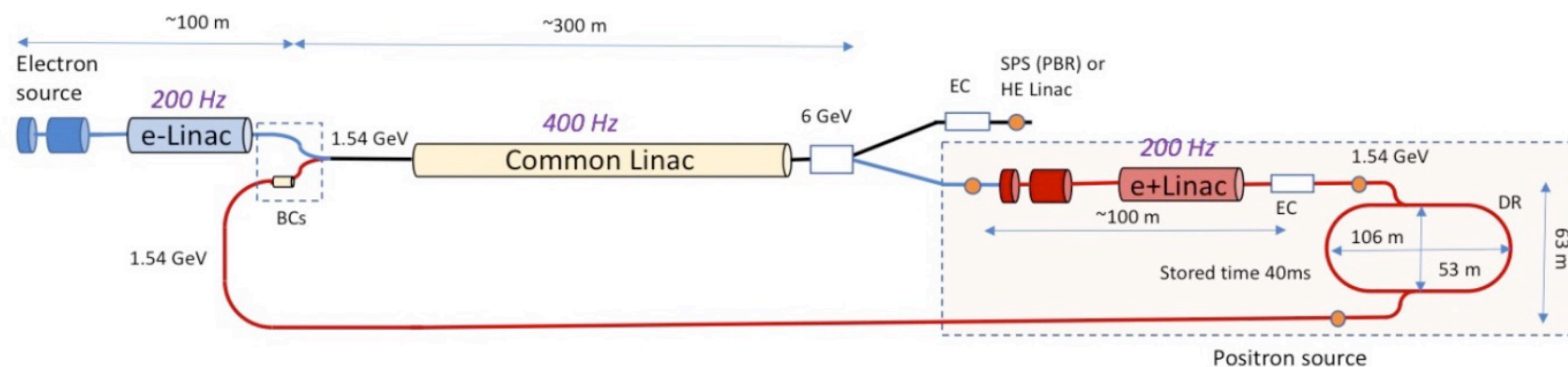
- ★ Additional special funds allocated by INFN on FCC accelerator aspects
 - * Interaction Region mockup (LNF) (2023 - 2026)
 - * Superconducting RF cavities (LNL) (2023 - 2026)
 - * High Field Magnets (various INFN labs) (2024 - 2028)



3D view of FCC-ee IR including the rigid support tube, vertex detector and outer trackers.



The Layout of the FCC-ee Injector is presented in Fig. 1.



- Engineered mechanical model of the Machine-Detector-Interface
- Engineered IDEA Vertex detector
- First modules of the full-hadronic containment DR prototype ready
- Design, operation and test of several 2D μ RWELL prototypes
- Design of the DR crystal em calorimeter progressing nicely
- Test beam studies on cluster counting for the Drift chamber

- Italy is interested and active in R&D for a future muon collider as a possible next-to-next collider

- We are already collaborating with several institutes from USA, France, Switzerland, Korea, UK
- In this respect we also started common France-Italy FCC meetings
 - Next one will be in **Venice** on **November 4-6, 2024**: [https://
agenda.infn.it/event/37960/](https://agenda.infn.it/event/37960/)
- Workshop "INFN and the European Strategy for Particle Physics" organised in **Rome** on **May 6-7, 2024**
- We are eagerly seeking to increase international collaborations