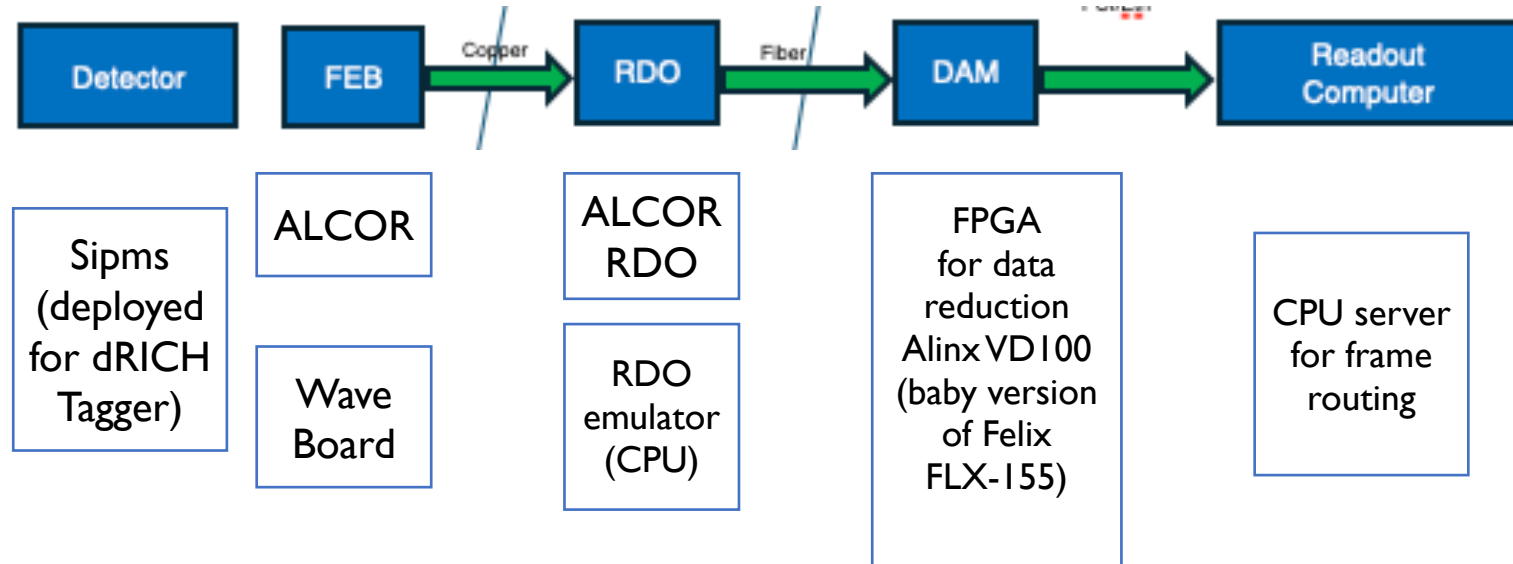


Streaming RO @INFN-GE for ePIC - 2026

1. Coordination of ePIC SRO WG
2. Coordination of dRICH AI-based data reduction (with INFN-RM and INFN-RMTV)
3. Design and deployment of a full femtoDAQ in Genova (as a part of the ePIC SRO milestones) as a prototype of ePIQ SRO DAQ



Eng. F.Rossi (previously in PNRR-FAIR) is joining INFN-GE ElectrService and ePIC as SRO/data-reduction expert

RICHIESTE

COSUMO: 2k SiPMs, cavi, connettori, pcb

INV: 5k multi-CPU server (frame routing and RDO emulator)

Streaming DAQ Release Schedule:

PicoDAQ **FY26Q1**

- Readout test setups

MicroDAQ: **FY26Q4**

- Readout detector data in test stand using engineering articles

MiniDAQ: **FY28Q1**

- Readout detector data using full hardware and timing chain

Full DAQ-v1: **FY29Q2**

- Full functionality DAQ ready for full system integration & testing

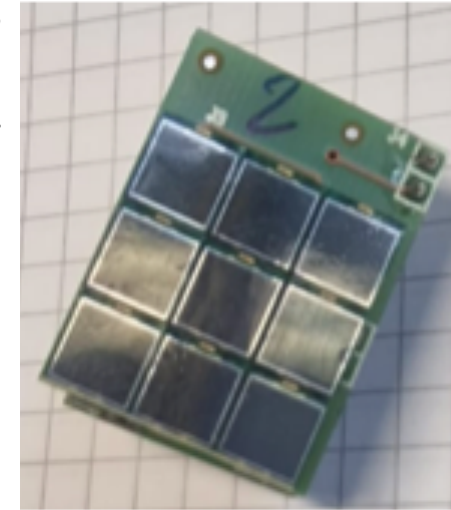
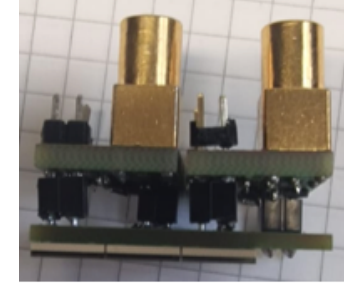
Production DAQ: **FY31Q3**

- Ready for cosmics

PbWO₄/SciGlass RO @INFN-GE for EIC - 2026

- Former EIC eRD105 and Generic R&D program in collaboration with CUA
- In coordination with forward EMC ePIC group
- Development of readout for SiPM board used in the PbWO₄ EMC prototype (16 SiPM for crystals x 16 crystals read individually)
- Deployment of a 3x3 prototype made by PbWO₄ and SciGlass reusing the available mechanic developed for SRO tests on JLab Hall-B

Readout electronics designed in Genova (M. Malatesta + Electronic Service)



RICHIESTE

COSUMO: 3k 9ch preamps on PCB + cavi, connettori

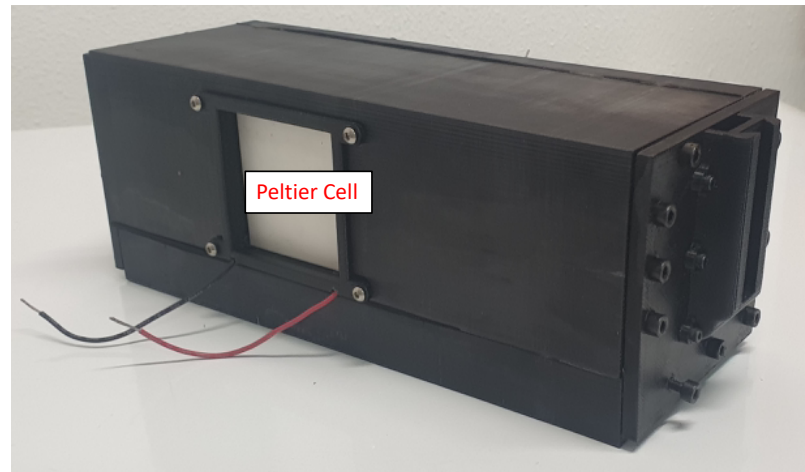
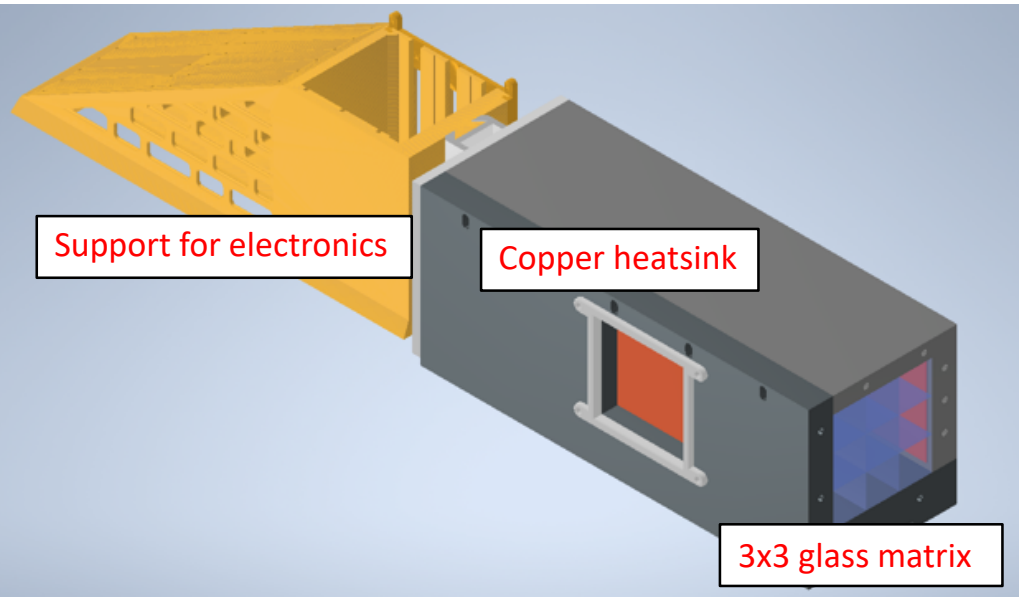
Eur. Phys. J. A (2025) 61:72
<https://doi.org/10.1140/epja/s10050-025-01540-6>

THE EUROPEAN
PHYSICAL JOURNAL A



Regular Article - Experimental Physics

Scintillating glass for precision calorimetry in nuclear physics



MARCO solenoid @INFN-GE for ePIC - 2026

- Activity lead by S.Farinon and P.Fabbricatore (Applied Superconductivity Group - ASG) + Admin.(~15M€ contract)
- ASG has a long experience in magnet design (LHC dipoles, CMS, ATLAS ITER, ...)
- MARCO is an international collaboration: BNL (installation), JLab (integration), CEA (design) and INFN (bid and construction)
- Timeline: ePIC EB approval by Sept 25, bid out in fall/winter, expected ~5y from order
- Superconducting solenoid, up to 2T (3924A)
- NbTi conductor: ordered from LUVATA (~2y for procurement)
- Challenges: Al-stabilized replaced by Cu-stabilized; extra weight (outer cylinder in Al and not brass)
- ePIC-Genova (whole INFN-ePIC) supports the ASG
 - by linking engineers with ePIC International Collaboration
 - by running detector simulations for fast feedback on design variation
 - by supervising alignment/calibration of detectors in the B field

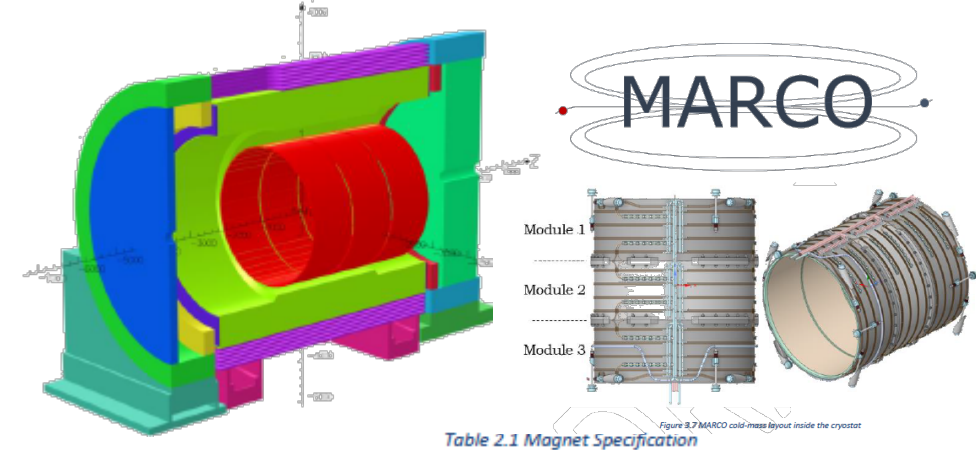


Table 2.1 Magnet Specification

Parameter	Detector 1-Solenoid
Nominal Central Field at IP (T)	2
Operating Field Range (T)	0.5-2.0
Magnetic Field Polarity	Bipolar
Coil length (mm)	3492
Warm bore diameter (m)	2.84
Cryostat length (m)	<3.85
Cryostat outer diameter (m)	<3.54
Flat Field area	± 100 cm around center 80 cm radius
Field uniformity in Flat field Area (%)	12.5
RICH area	From z=+180 cm to 280 cm
Projectivity in RICH Area (mrad@30GeV/c)	0.1 10
Projectivity in RICH Area (T/Amm ²)	
Charging voltage (V)	10
Fast discharge voltage maximum (V)	500
Quench hot spot temperature (K)	<150
Temperature margin (K)	>1.5
Current margin (%)	<30
Charging time (hr)	2-3
Cooldown time (weeks)	3-4
Cooling scheme	Thermosiphon
Conductor	Cu Stabilized NbTi Rutherford cable
Operating Temperature	4.5