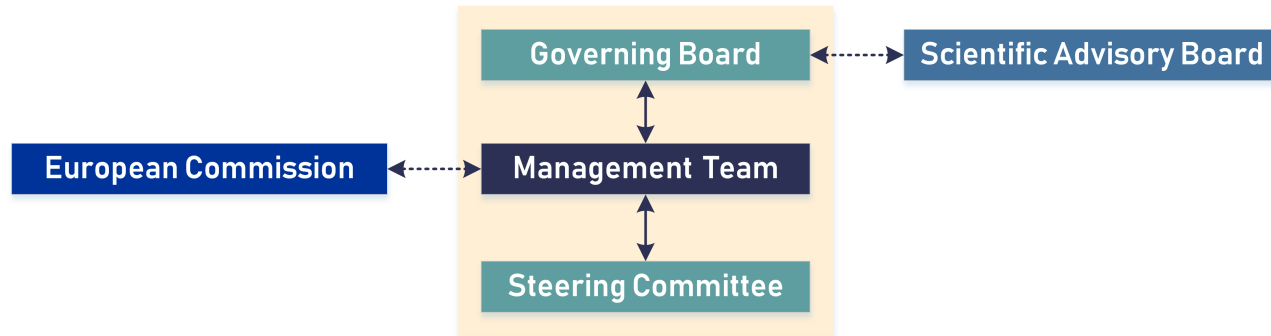


Management



- The members of the Project Management Team and the Steering Committee will be approved by the Governing Board
- Scientific Coordinator: Felix Sefkow (DESY) + two Deputy Coordinators
- The Consortium is composed of 38 beneficiaries from 19 European countries

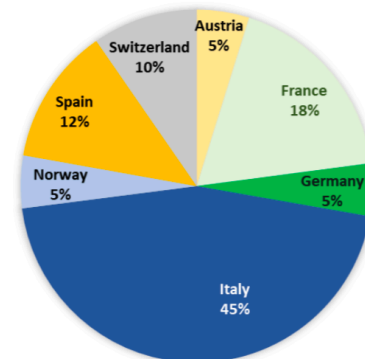
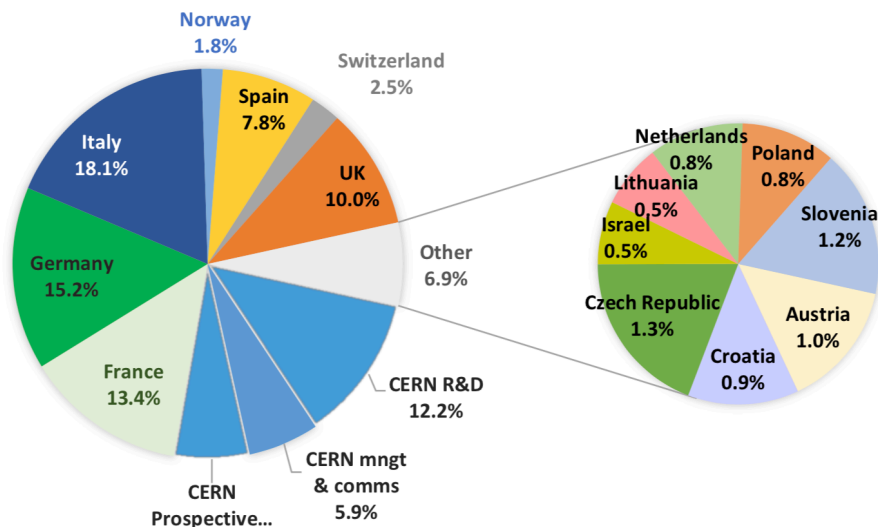
- ✓ Procedura di selezione e preparazione proposal partita un'anno fa: Luglio 2019
- ✓ 162 proposte => 20% sopravvissute
- ✓ Proposal sottomesso a Maggio 2020 (2 mesi di ritardo x COVID)

Budget

Contact person INFN
Nadia Pastrone

| Beneficiary no. | Beneficiary | Person-months | Personnel costs | Travel | Equipment and consumables | Other direct costs | Sub-contracting | Material direct costs | Total direct costs | EC requested funding (including overheads) |
|-----------------|-------------|---------------|-----------------|-----------|---------------------------|--------------------|-----------------|-----------------------|--------------------|--|
| 1 | CERN | 465.5 | 3,834,850.00 | 102,600.0 | 178,250.0 | 749,000.0 | 0.0 | 1,029,850.00 | 4,864,700.00 | 2,590,625.00 |
| 19 | CAEN | 53.0 | 227,900.00 | 12,400.0 | 22,000.0 | 0.0 | 0.0 | 34,400.00 | 262,300.00 | 162,500.00 |
| 20 | ELTOS | 12.0 | 72,000.00 | 7,000.0 | 50,000.0 | 13,500.0 | 0.0 | 70,500.00 | 142,500.00 | 87,500.00 |
| 21 | FBK | 23.4 | 154,440.00 | 20,220.0 | 9,000.0 | 157,000.0 | 0.0 | 186,220.00 | 340,660.00 | 218,750.00 |
| 22 | INFN | 586.0 | 2,930,000.00 | 120,000.0 | 125,000.0 | 27,000.0 | 0.0 | 272,000.00 | 3,202,000.00 | 1,345,000.00 |

EC FUNDING PER COUNTRY



Partecipazione Italiana di alto profilo
Abbiamo sofferto il nostro successo (alla fine tagli su base regionale e non scientifica)

| WP | | Industries | INFN |
|----|---|------------|---|
| 3 | beam telescopes + DAQ @ CERN & DESY | | |
| 4 | irradiation/EMC, characterization facilities | CAEN | <i>ENEA-FNG irradiation</i> |
| 5 | Depleted Monolithic Active Pixel Sensors | | PI, TO, MI, PV, CA |
| 6 | hybrid silicon pixel including timing (4D) | FBK | CA, GE, PG, TN, TO |
| 7 | new gas detector MPGD, RPC, TPC | CAEN ELTOS | BA, BO, LE, LNF, PV, RM3, TS |
| 8 | calorimeters and particle ID detectors | CAEN FBK | BO, LNF, NA, PD, PG, PV, TO <i>Glass2Power</i> |
| 9 | cryogenic neutrino detectors: LAr TPC | | MIB |
| 10 | advanced mechanics for ultra-light Sidetector | | PI, PG |
| 11 | microelectronics: ASIC design | | BA, BO, PV, TO |
| 12 | software/reco: Turnkey Software Stack | | FE, PD, PI |
| 13 | prospective and technology-driven R&D | | |

BARI: WP7 e WP11 : circa 100.000 Euro

Objectives

Task 7.1. Coordination and Communication

See introductory section on page 29.

Task 7.2. Multigap RPCs (MRPCs) for fast timing and Eco-friendly gas mixtures for RPCs

- Developing and testing material (thin plates of low resistivity glass)
- Construction, characterisation and test beam of small-size prototypes
- Construction of $1 \times 1 \text{ m}^2$ prototypes with the new readout plane structure for a semi-digital hadron calorimeter (SDHCAL)
- Test beam study of the shower time development in an SDHCAL, equipped with the prototype detectors
- Identification and characterisation of new gas mixture candidates
- Validation of the gas mixtures after large integrated doses at GIF++

Task 7.3. Development of resistive electrodes for MPGDs and Industrial engineering of high-rate μ -RWELL detector

- Production of Diamond Like Carbon (DLC) with ion beam deposition and pulsed laser deposition
- Study of the resistance of graphene to polyimide etching liquids
- Characterisation of $10 \times 10 \text{ cm}^2$ foils by DLC and graphene
- Industrial production of small-size prototypes and their characterisation
- Industrial production of large-size prototypes ($\sim 0.5 \text{ m}^2$) and their characterisation

Task 7.4. A 4-channel electronic board prototype for cluster counting and Hybrid readout for high pressure gas TPC for neutrino physics

- Design electronics and realise a 4-channel prototype for cluster counting in ultra-light drift chambers
- Identification and characterisation of adequate gasses
- Construction of a small-scale TPC prototype ($\sim 10 \text{ l}$) with a hybrid charge and optical readout

Task 7.5. Photon detectors for hadron particle identification at high momenta

- Development of MPGD single photon detectors for compact Ring Imaging Cherenkov detectors
- Comparison of measured prototype characteristics with Silicon Photomultipliers (SiPMs) and Large Area Picosecond Photodetectors (LAPPDs)

WP7

Person-months

funded by the EC and provided in-kind by beneficiaries

| Beneficiary | WP1 | | WP2 | | WP3 | | WP4 | | WP5 | | WP6 | | WP7 | | WP8 | | WP9 | | WP10 | | WP11 | | WP12 | | WP13 | | Total PM per Participant | |
|-------------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|------|---------|-----|---------|------|---------|------|---------|------|---------|------|---------|--------------------------|---------|
| | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind | EC | in-kind |
| CERN | 25.2 | 10.8 | 19.5 | 21.5 | 22.0 | 29.0 | 23.0 | 50.0 | 26.5 | 29.5 | 9.6 | 19.4 | 9.9 | 8.1 | 13.7 | 23.3 | - | - | 9.2 | 36.8 | - | - | 26.4 | 50.1 | 0.0 | 2.0 | 185.0 | 280.5 |
| CAEN | - | - | - | - | - | - | 11.0 | 9.0 | - | - | - | - | 11.0 | 10.0 | 6.0 | 6.0 | - | - | - | - | - | - | - | - | - | - | 28.0 | 25.0 |
| ELTOS | - | - | - | - | - | - | - | - | - | - | - | - | 11.0 | 1.0 | - | - | - | - | - | - | - | - | - | - | - | - | 11.0 | 1.0 |
| FBK | - | - | - | - | - | - | - | - | - | - | 17.0 | 0.0 | - | - | 6.4 | 0.0 | - | - | - | - | - | - | - | - | - | - | 23.4 | 0.0 |
| INFN | - | - | - | - | - | - | 5.0 | 12.0 | 19.5 | 39.5 | 24.0 | 53.0 | 62.0 | 119.0 | 24.0 | 35.0 | 6.0 | 12.0 | 4.0 | 8.0 | 44.0 | 77.0 | 14.0 | 28.0 | - | - | 202.5 | 383.5 |



DOPO L'APPROVAZIONE DEL PROGETTO → per il 2021

- ➔ Apertura della sigla in tutte le sezioni beneficiarie
- ➔ Dichiarazioni percentuali da rendicontare su timesheet
- ➔ Questa sigla dovrà essere considerata sinergica ai progetti coinvolti
- ➔ Preparazione bandi per personale finanziato (co-finanziato) dal progetto