



# IRN NEUTRINO

A.Meregaglia (CENBG)

IRN meeting - 10 June 2021

# MOTIVATION AND HISTORY

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- The GdR (Groupe de Recherche) Neutrino was created in 2005, with the goal of gathering the French neutrino community and give the possibility to students and post-docs to present their work and get themselves known.
- The GdR has been an important forum to discuss the latest developments both on the experimental and on the theoretical side, and to discuss about the roadmap.
- The GdR played an important role in the IN2P3 prospectives (Groupe de Travail GT06).
- Over the years the **international participation grew larger and larger** with meetings in English and with a participation in the GdR council.
- In 2019 the GdR was already international and discussing within the community and with the direction of IN2P3 we decided to make this more visible through the IRN label (International Research Network).
- We started searching for partners in 2019, a formal document was submitted in 2020 and the IRN Neutrino has been **approved for 5 years starting from the 1st of January 2021** and replacing the GdR Neutrino.

# PARTNERS

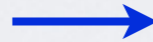
- Based on the selected criteria (enhancing the link between theory and experiments and already existing common projects), 4 partners have been selected.



## Milano Bicocca University

(Italy)

Contact Person:  
F. Terranova



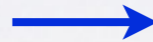
Existing collaboration on JUNO, DUNE, CUPID and on the ENUBET project.



## Karlsruhe Institute of Technology

(Germany)

Contact Person:  
T. Schwetz-Mangold



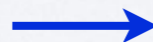
Existing links between theoreticians and experimentalist. Common experiments such as KATRIN, AUGER or DARWIN.



## IFIC Valencia

(Spain)

Contact Person:  
P. Hernandez



Existing collaboration on T2K, DUNE (in particular ProtoDUNE dual phase) and KM3NET.



## UCL London

(U.K.)

Contact Person:  
R. Saakyan



Existing collaboration on SuperNEMO and DUNE.

# WORKING GROUPS

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- 5 different working groups (same structure as GDR).

## **WG1: Neutrino parameters determination**

Coordinators: [Guillaume Mention](#) (CEA) and [Laurent Simard](#) (IJCLab)

## **WG2: Physics beyond Standard Model**

Coordinators: [Ana Teixeira](#) (LPC)

## **WG3: Neutrinos in the Universe**

Coordinators: [Jurgen Brunner](#) (CPPM) and [Davide Franco](#) (APC)

## **WG4: Accelerators, detectors, R&D and valorisation**

Coordinators: [Eric Baussan](#) (IPHC) and [Andrea Giuliani](#) (IJCLab)

## **WG5: Common tools**

Coordinators: [Joao Pedro de Andre](#) (IPHC) and [Claudio Giganti](#) (LPNHE)

# ORGANISATION

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**Director** A. Meregaglia

**Deputy director** S. Lavignac

## **IRN council**

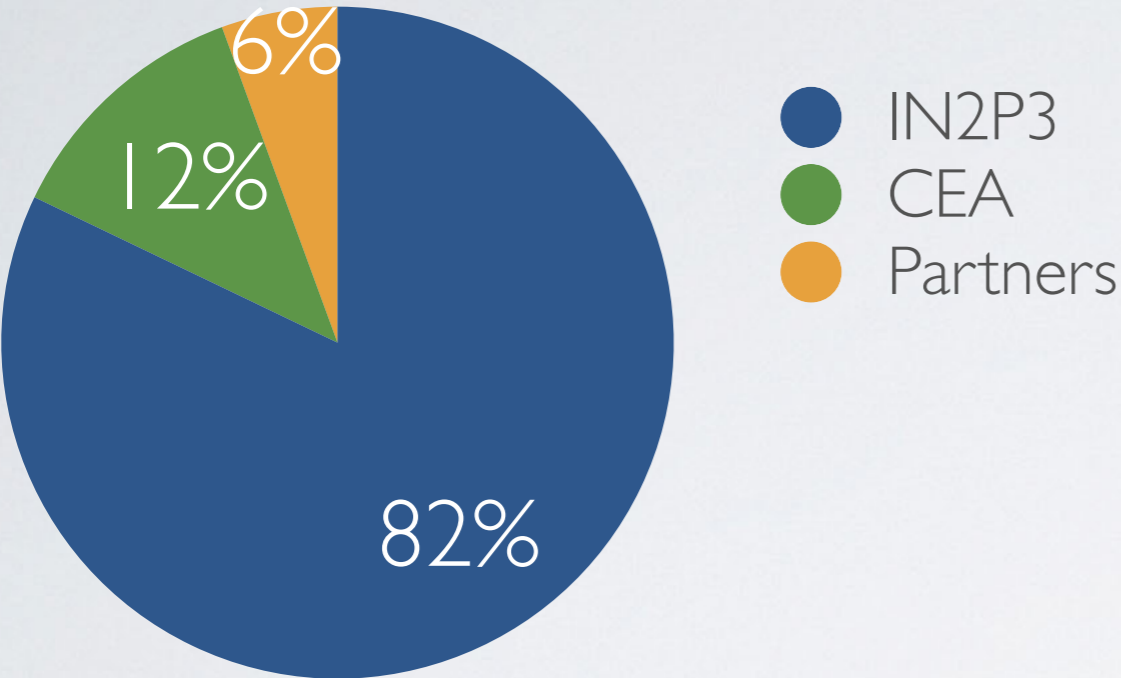
- D. Autiero (president)
- D. Duchesneau
- M. Zito
- Corresponding person of partner institutes
- IRN directeur and directeur adjoint
- Coordinateurs of WG

## **5 working groups**

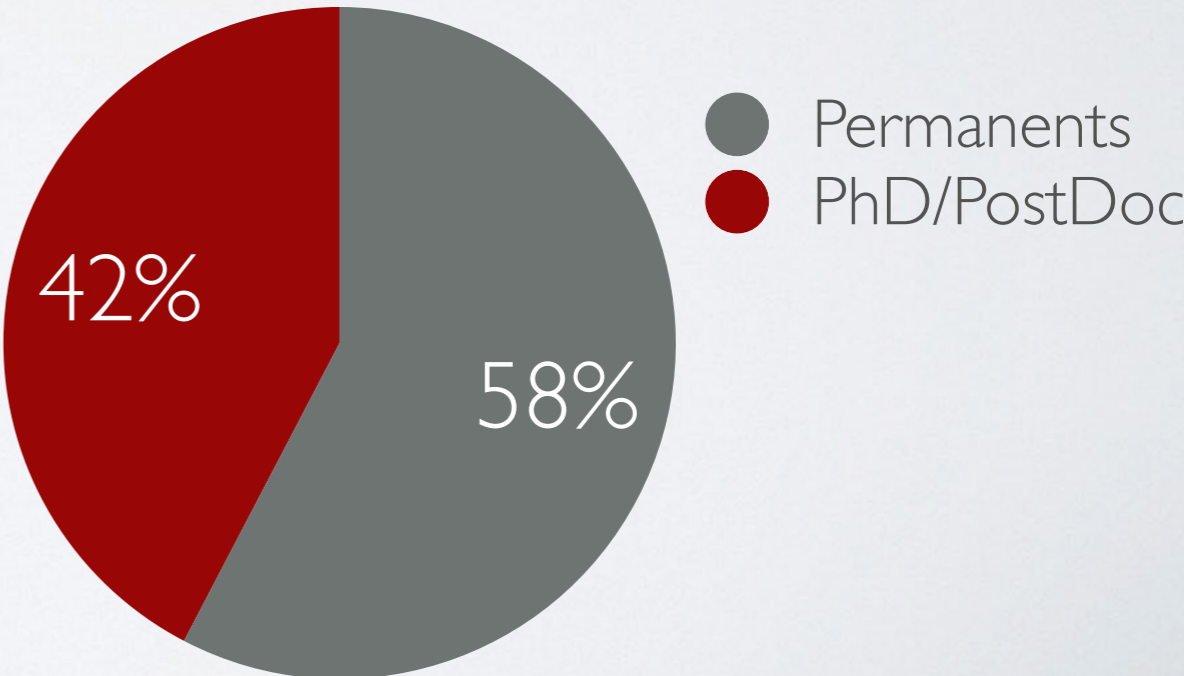
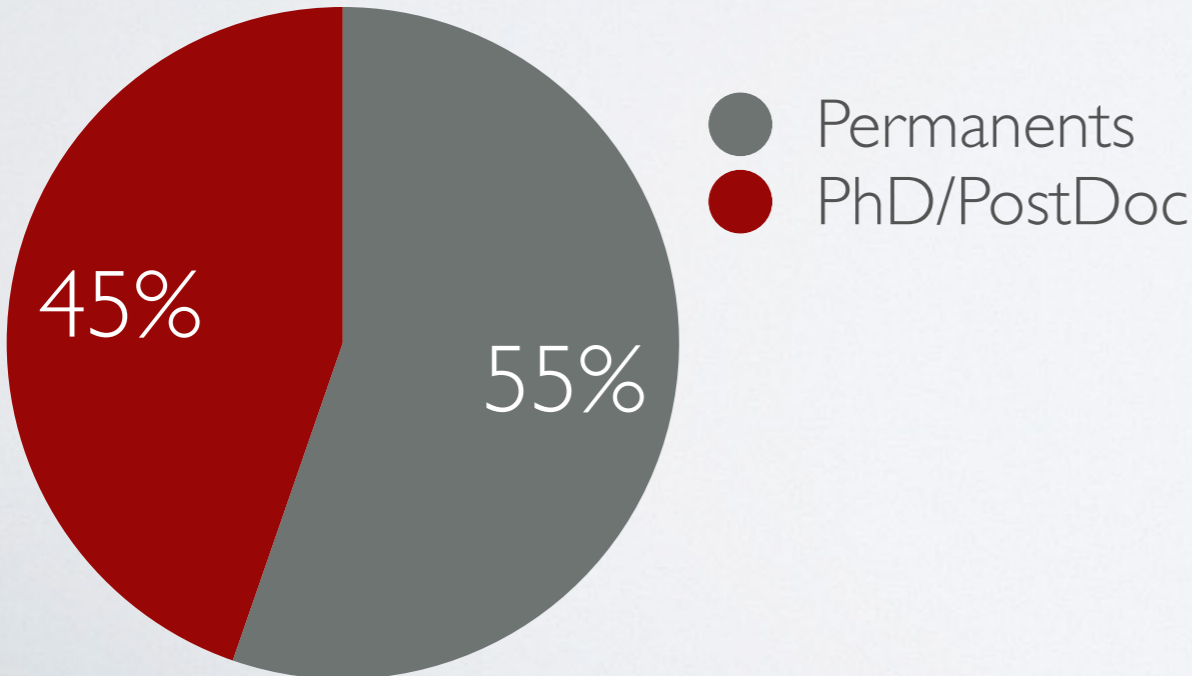
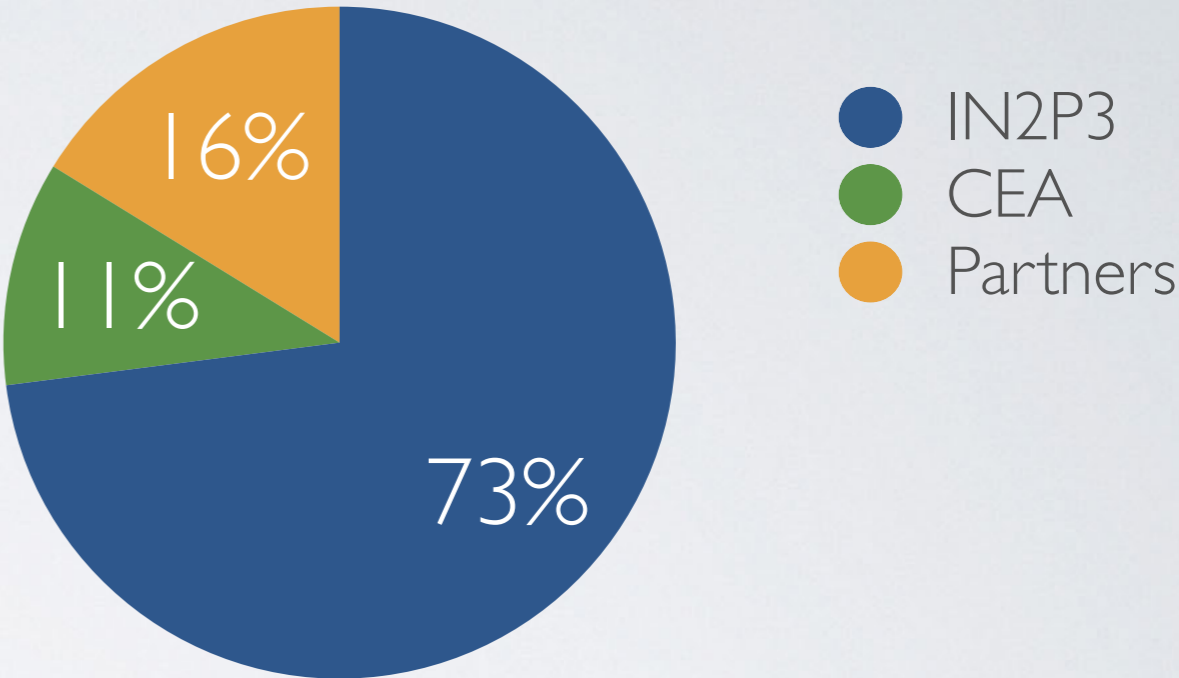
2 coordinateurs per WG

# SOME STATISTICS

Mailing list  
(179 subscribers)



Last meeting attendance  
(111 participants)



# FUNCTIONING

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- The idea is to inherit from the functioning of GDR organizing two meetings per year (typically spring and autumn).
- The typical meeting will be:

Half a day dedicated to the IRN council

Half a day dedicated to “plenary” sessions with about 30 minutes presentation given by senior speakers

A full day dedicated to the working groups presentation (about 1h30 per WG) with shorter presentations (15-20 minutes) typically given by younger colleagues

# FUNCTIONING

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- We will try to organise one of the two yearly meeting in Paris and one in another IN2P3 laboratory. The possibility of having meetings abroad is not discarded but it would depend on the fundings since the main goal is to have a large participation of the community especially younger colleagues.
- We have typically a budget of 20k euro per year which does not allow to fully cover the expenses of all the participants (about 60 to 80 per meeting) and the different neutrino groups share a fraction of the costs.
- The partners will have their own budget which will allow them to participate to the meetings.

**All the information have been updated on the webpage (although the link is still called “gdr” for now)**

<http://gdrneutrino.in2p3.fr>