T2K-EU GROUPS

For

H2020-MSCA-RISE-2014

T2K groups interested (confirmed)

Table B1. Participants table

Participant number *(as table §A.2)*	Partnership Member	Legal Entity Short Name	Academic (Y/N)	Country
	Beneficiaries			
1	Istituto Nazionale di Fisica Nucleare	INFN	Y	Italy
2	National Centre for Nuclear Research	NCBJ	Y	Poland
3	Queen Mary University of London	QMUL	Y	UK
4	University of Edinburgh + others		Y	UK
5	Centre pour l'Energie Atomique	CEA	Y	France
	Partner Organisations			
n	High Energy Accelerator Research Organization	KEK	Y	Japan
n+1	Japanese firm (hamamatzu)		N	Japan

Contact persons

- NCBJ (Poland) : Justyna Lagoda (justyna.lagoda@fuw.edu.pl)
- QMUL (UK): Francesca di Lodovico (f.di.lodovico@qmul.ac.uk)
- Edinburgo (UK) : (to.be@defined)
- CEA (France):Sara Bolognesi (Sara.Bolognesi@cea.fr)
- INFN (Italy) V.Berardi(M.G.Catanesi)(vincenzo.berardi@ba.infn.it)

Participation still to be confirmed :

IFAE Valencia (A. Cervera/LaCasta) and/or Lisbon (PT)

WP3

- ✓ Data taking a data analysis of the T2K neutrino experiment:
  - Objectives:
    - Precise measurement of the oscillation parameters
    - (anti-)Neutrino X-section at low energy (GeV)
    - Search for CP and for sterile neutrino hints
  - ✓ Tasks (?)
    - Data taking, data quality and detector calibration
    - Flux Constrain @SK using ND280 data (BANFF inputs)
    - (anti-)Neutrino X-sections at low energy (GeV) ,MEC studies
    - Neutrino/anti-neutrino data analysis (close & far detector)
      - Measurement of θ_{13} in a anti-neutrino beam
      - Search for CP

WP4

- From T2K to HyperK:
  - Goals:
    - Upgrade of the close detectors system:
      - Development of a HP-TPC
      - Development of a WC detector at 2Km "TITUS"
      - Development of a WC detector "NuPrism"
  - Task (?)
    - Physics motivations (?)
    - Development of a HP-TPC: (design, prototyping and tests)
    - Development of a WC detector at 2Km "TITUS":(detector design, development of new sensors, prototyping and tests)
    - Development of a WC detector "NuPrism": (design and construction)

Activities in person-months
(very preliminary)

- CEA (France) WP3 = 20, WP4 = 4 => Total 24
- NCBJ (Poland) WP3 = 18, WP4 = 6 => Total 24
- QMUL (UK) WP3 = 12, WP4 = 12 => Total 24 + WP5
- Other (UK) WP3 = 12, WP4 = 12 => Total 24
- ……..

- CEA (France) WP3 (O.A. ,Detector running + calibration)
  WP4 (HP-TPC)
- NCBJ (Poland) WP3 (MEC, Sand Muons (BG))
- WP4 (WC : phot-osensors + electronic)
- QMUL + Other (UK) :

WP3 = (OA,X-sections)

WP4 = DAQ + electronics, TITUS design and prototyping

Activities INFN (con.)

- WP3
  - Flux Constrain @SK using ND280 data (BANFF inputs)
  - anti-Neutrino X-sections at low energy (GeV)
  - O.A.
- WP4
  - WC: new photo-sensor development
  - HP-TPC (MPGD readout)
- WP5