

Who is JENNIFER ?



Japan and Europe Network for Neutrino and
Intensity Frontier Experimental Research



EUROPEAN COMMISSION

Horizon 2020 - Research and Innovation Framework Programme

Evaluation Summary Report

Call: H2020-MSCA-RISE-2014
Funding scheme: Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)
Proposal number: 644294
Proposal acronym: JENNIFER
Duration (months): 48
Proposal title: Japan and Europe Network for Neutrino and Intensity Frontier Experimental Research
Activity: PHY

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	ISTITUTO NAZIONALE DI FISICA NUCLEARE	IT	774,000	33.53%	774,000	33.53%
2	STIFTUNG DEUTSCHES ELEKTRONEN-SYNCHROTRON DESY	DE	418,500	18.13%	418,500	18.13%
3	OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN	AT	99,000	4.29%	99,000	4.29%
4	THE HENRYK NIEWODNICZANSKI INSTITUTE OF NUCLEAR PHYSICS, POLISH ACADEMY OF SCIENCES	PL	40,500	1.75%	40,500	1.75%
5	UNIVERZITA KARLOVA V PRAZE	CZ	45,000	1.95%	45,000	1.95%
6	INSTITUT JOZEF STEFAN	SI	121,500	5.26%	121,500	5.26%
7	MIDDLE EAST TECHNICAL UNIVERSITY	TR	63,000	2.73%	63,000	2.73%
8	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR	76,500	3.31%	76,500	3.31%
9	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR	126,000	5.46%	126,000	5.46%
10	INSTITUTO DE FISICA DE ALTAS ENERGIAS	ES	103,500	4.48%	103,500	4.48%
11	NARODOWE CENTRUM BADAN JADROWYCH	PL	126,000	5.46%	126,000	5.46%
12	QUEEN MARY UNIVERSITY OF LONDON	UK	126,000	5.46%	126,000	5.46%
13	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL	UK	171,000	7.41%	171,000	7.41%
14	COSTRUZIONI APPARECCHIATURE ELETTRONICHE NUCLEARI C.A.E.N. SPA	IT	18,000	0.78%	18,000	0.78%
15	INTER-UNIVERSITY RESEARCH INSTITUTE CORPORATION, HIGH ENERGY ACCELERATOR RESEARCH ORGANISATION	JP	0	0.00%	0	0.00%
Total:			2,308,500		2,308,500	

5 Work Packages:

1-2 BELLE-II

3-4 T2K

5 Management

Table B3: Work Package List

Work Package No	Work Package Title	Activity Type	Number of person-months involved	Start Month	End month
1	Flavour physics at an e+e- collider	Research, training, dissemination, communication	70	1	48
2	Belle-II detector construction and test	Research, training	222	1	48
3	Neutrino oscillation physics	Research, training, dissemination, communication	115	1	48
4	Towards HyperK	Research, training	96	1	48
5	Management	Management, Networking, Dissemination, Communication	10	1	48

WP 1

70 person months
(19 INFN)

Flavour physics at an e^+e^- collider

Task 1.1: Detector related software

Deliverables: **annual workshops (attached to B2TIP)**

Task 1.2 : Physics analysis tools

Deliverables: **tutorials to Belle-II members
written and updated user guide**

Task 1.3: Belle-II physics-theory interface platform

Deliverables: **Belle-II yellow report**

BELLE-II detector construction and test

Task 2.1: Forward Electromagnetic Calorimeter

Deliverables: **final TDR (month 10)**
final Commissioning Report (month 48)

Task 2.2 : Tracking detectors

Deliverables: **full CDC commissioning**
PXD whitebook
full SVD+PXD integration and commissioning inside BELLE-II

Task 2.3: Particle identification

Deliverables: **Barrel PID calibration and commissioning**
Forward PID calibration and commissioning

Task 2.4: Luminosity monitor

Deliverables: **diamond sensors optimization for accelerator feedback**
→ add BEAST2 activity (Trieste)

Neutrino Oscillation Physics

Task 3.1: Neutrino interactions and cross sections

Task 3.2 : External background studies

Task 3.3: Exotic physics

Common Deliverables: **report on anti-neutrino analysis (month 24)**
report on MEC searches methods (month 48)
**report on combined electron and muon neutrino
oscillation analysis**

Towards HyperKamiokande

Task 4.1: Water Cherenkov detector

Deliverables: HyperK sensitivity study with a 2 Kton WC detector
Photosensor performance study
1 Kton detector test

Task 4.2 : High Pressure TPC

Deliverables: detailed simulation

Task 4.3: Beam

Deliverables: Beam target design
Beam target proposal

WP 5

10 person months
(full INFN)

Task 1.1: Management of secondments

Deliverables: **appointing project Executive Committee**
Secondments DB creation and maintenance

Task 1.2 : Organization of common events

Deliverables: **yearly general meeting (with proceedings)**

Task 1.3: Outreach activities

Deliverables: **yearly outreach event**
yearly school for graduate students
BELLE-II inclusion in masterclasses program

Communication and outreach are an essential part of the project !

Collaboration is welcome to these items !

Budget and accounting

Project aims to researchers mobility :

budget is entirely built up on researcher's secondment periods in Japan

1 secondment person month = 4500 €

Formally: 4500 = 2000 (researcher's salary top-up) +
1800 (research costs) +
700 (management costs)

However:

no budget accounting is required, but only secondments accounting !

i.e. Only proofs of the secondments travels and activity shall be provided
Budget can be used freely according to internal project rules.

Minimum secondment duration per person is 1 month, but can be split into many shorter periods during the project life. Only requirement is that people do work full time on the project during secondments.

Questioni INFN specifiche

- Il budget ottenuto (774 k€) va suddiviso fra:
 - Belle-II (98 mesi-persona)
 - T2K (64 mesi-persona)
 - Management (10 mesi-persona, tasca comune del progetto)
- Sarà aperta una sigla JENNIFER con 3 sedi: Roma3 (coord), LNF (Belle2) e Bari (T2K) **su cui NON è necessario indicare percentuali di partecipazione.**
- **I mesi di secondment possono essere suddivisi in più periodi, purché sommino al numero previsto di mesi integrati nei 4 anni del progetto.**
- Le missioni a KEK conteggiate come secondments di JENNIFER
 - saranno pianificate su base annuale (o anche più)
 - avranno un accounting specifico (oltre a quello normale delle missioni INFN)
 - saranno pagate indifferentemente su fondi di esperimento o di progetto a seconda dell'opportunità del momento
- Stiamo valutando come spendere il budget JENNIFER, assumendo che solo una parte sarà usata per cofinanziare le missioni con la CSN1. **Sicuramente ci saranno dei contratti di AdR, ma forse anche altro.**