

RANDALF-II new proposal 2016

Research and Development for a future Lepton Facility



LINEAR COLLIDER COLLABORATION



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J. Fuster

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Description: what is RISE

- Exchange programme for researchers between EU member states, EU associate countries and EU non-associated countries.
- The means to implement the grant are secondments of research and innovation staff (exchanges).
- The financial contribution is fixed on the basis of units-cost. One unit-cost is one person-month of secondment. Only European personnel is supported by the grant covering a stay in a EU non-associated country.
- The financial support is composed of a *staff member unit cost of 2,000 EUR* per month, plus an *institutional unit cost of 2,500 EUR per person-month*.

Marie Skłodowska-Curie Action	Staff member unit cost [per person-month of secondment] [EUR]	Institutional unit cost [per person-month of secondment]	
		Research, training and networking costs [EUR]	Management and indirect costs [EUR]
RISE	2,000	1,800	700

- Institutional budget can also be used to cover networking activities, coordination and management work.



RanDaLF (Research and Development for a future Lepton Facility)

The RANDALF programme is organized along three major lines:

- Development of modern detector technologies.
 - Improvement of the communication and exchange of information on technological developments.
 - Easing the access to industrial capacities in the different countries through local interfaces between the industrial players and members of the consortium.
 - Optimization of the detector designs required to exploit the LC via detailed understanding of the physics performance drivers.
 - Development of a common interface and a flexible software package for data handling. These are major challenges for modern, complex experiments and are key for successful international organization, scientific preparation, and eventual exploitation of any major facility.
- Training of the next generation of scientists in a truly global and cross-cultural manner.
- Communication and disseminate or the actions and the results to a broader public. A central management team will coordinate the activities, and ensure a smooth and focused execution of the programme.



Description: participating Institutes/Groups

N.	Proposer name	Country	Total Cost	%	Grant Requested	%
1	STIFTUNG DEUTSCHES ELEKTRONEN-SYNCHROTRON DESY	DE	360,000	14.52%	360,000	18.26%
2	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS	ES	256,500	10.34%	256,500	13.01%
3	AKADEMIA GORNICZO-HUTNICZA IM. STANISLAWA STASZICA W KRAKOWIE	PL	171,000	6.90%	171,000	8.68%
4	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	FR	99,000	3.99%	99,000	5.02%
5	EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH	CH	27,000	1.09%	27,000	1.37%
6	CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE	FR	310,500	12.52%	310,500	15.75%
7	STICHTING VOOR FUNDAMENTEEL ONDERZOEK DER MATERIE - FOM	NL	90,000	3.63%	90,000	4.57%
8	FYZIKALNI USTAV AV CR V.V.I	CZ	36,000	1.45%	36,000	1.83%
9	MAX PLANCK GESELLSCHAFT ZUR FOERDERUNG DER WISSENSCHAFTEN E.V.	DE	54,000	2.18%	54,000	2.74%
10	SCIENCE AND TECHNOLOGY FACILITIES COUNCIL	UK	229,500	9.26%	229,500	11.64%
11	TEL AVIV UNIVERSITY	IL	153,000	6.17%	153,000	7.76%
12	THE CHANCELLOR, MASTERS AND SCHOLARS OF THE UNIVERSITY OF OXFORD	UK	36,000	1.45%	36,000	1.83%
13	INSTITUT ZA NUKLEARNE NAUKE VINCA INTER-UNIVERSITY RESEARCH INSTITUTE	RS	148,500	5.99%	148,500	7.53%
14	CORPORATION, HIGH ENERGY ACCELERATOR RESEARCH ORGANISATION	JP	171,000	6.90%	0	0.00%
15	SLAC National Accelerator Laboratory	US	58,500	2.36%	0	0.00%
16	NATIONAL UNIVERSITY CORPORATION KYUSHU UNIVERSITY	JP	148,500	5.99%	0	0.00%
17	NATIONAL UNIVERSITY CORPORATION TOHOKU UNIVERSITY	JP	36,000	1.45%	0	0.00%
18	University of Tokyo	JP	94,500	3.81%	0	0.00%
	Total:		2,479,500		1,971,000	



List of secondments per WP

Work package No	Work Package Description	Activity Type	Number of person months involved	Start month	End Month
1	Management, Communication and Outreach	Management and Dissemination	8	1	48
2	Development of technologies for modern detectors in particle physics at future electron positron colliders	Research	283	1	48
3	Investigation and development of possible physics scenarios which will have an impact on the design of future electron positron colliders	Research	108	1	48
4	Software tools and data handling	Research	39	1	48

Project coordinator: JF

Coordinating Institute: DESY

Work Package leaders

1	Ties Behnke, Marcel Stanitzki, Philip Burrows
2	Felix Sefkow, Maxim Titov
3	Jenny List, Roman Poeschl
4	Frank Gaede, Andre Sailer

Total score received: 73,2 / 100 (Threshold 70)

Criterion 1, Excellence (3,3 / 5.0; w: 50% of total score) *(between good and very good)*

Criterion 2, Impact (3,9 / 5.0; w: 30% of total score) *(between good and very good)*

Criterion 3, Implementation (4,2 / 5.0; w: 20% of total score) *(between very good and excellent)*

Summary of main criticisms:

- **C1:**
 1. Added value of proposed activity not clear, with respect to other work already being performed by the LC community
 2. Lack of industry participation
 3. Common work and scientific links among groups not well explained/described
 4. Scientific case for ILC not well described
- **C2:**
 1. ILC/CLIC no yet approved. Risk of community to disappear before end of project
 2. Use of detector R&D beyond particle physics
 3. Impact description too generic
- **C3:**
 1. Too wide scope for WP2
 2. Improve risk mitigation

Main issues to solve and to be included in a view of future new application:

- **C1:**
 1. Show the added value of this project with respect to already existing activities:
 - Define original activities only performed under RANDALF-II and only possible by a cooperation Europe-Japan-US/SLAC);
 - Important to show that the work developed follows recommendations from European bodies, ACFA, etc.;
 2. Include industrial participation (creation of a new WP to develop this possibility);
 3. Make more clear the relation and common work between the groups Europe-Japan-US/SLAC;
 4. Make more explicit the physics case of the LC;
- **C2:**
 1. Stability of the activity: define goals and work plan towards next update of the European Strategy;
 2. Try to define the work more in synergy under the scientific defined programmes of: ECFA, CERN, DESY, KEK;
 3. Get formal support for the work to be developed in RANDALF from above Institutions. Get their recognition of RANDALF-II as useful tool to achieve their strategic plans;
 4. Include “applications” of technologies in other experiments and specially beyond particle physics. Identify potential users;
- **C3**
 1. Extend the scope and activities beyond ILC;

- New title being considered: JAE-RANDALF ??
- New groups joining:
 - Institute of Nuclear Physics of Polish Academy of Sciences, IFJ PAN, Krakow-Poland. P. Kapusta
 - Pacific Northwest National Laboratory PNNL-USA. J. Strube
- Revise total/individual request of secondments
- Proposed Agenda 2016:
 1. **End-March:** Production of new draft of the document (V1).
 2. **April 8th:** Deadline for comments on version V1.
 3. **April 15th:** Production of new draft of the proposal (V2).
 4. **April 22th:** Final version of the document.
 5. **April 28th:** Deadline.

Meetings among all participants are expected after each version being released.

Meetings among working group coordinators are foreseen every (around) two weeks.



Let's do it !!!