SEVENTH FRAMEWORK PROGRAMME Marie Curie Actions

People International Research Staff Exchange Scheme

Annex I - "Description of Work"

DESCRIPTION OF WORK

PART A

1. Grant agreement details

Full Title: European Particle Physics Latin American Network

Acronym: EPLANET

Proposal Number: 246806

Scientific Panel: Physics

Grant Agreement Number: PIRSES-2009-GA-246806

Duration of the project: 4 years

Partner		Short	
Number	Partner Name	Name	Country
1 Coordinator	Universita di Roma "La Sapienza" (Coordinating EPLANET)	Roma I	IT
2 beneficiary	Centre National de la Recherche Scientifique	CNRS	FR
3 beneficiary	Istituto Nazionale di Fisica Nucleare	INFN	IT
4 beneficiary	Laboratorio de Instrumentacao e Fisica Experimental de Particulas	LIP	PT
5 beneficiary	Centro de Investigaciones Energeticas Medioambientales y Tecnologicas	CIEMAT	ES
6 beneficiary	Universidad de Alcala de Henares	UAH	ES
7 beneficiary	Universidad de Barcelona	UB	ES
8 beneficiary	Universidad Complutense de Madrid	UCM	ES
9 beneficiary	Universidad de Santiago de Compostela	USC	ES
10 beneficiary	Universidad de Valencia	UV	ES
11 beneficiary	European Organization for Nuclear Research	CERN	СН
12 beneficiary	University of Leeds	Leeds	UK
13 partner	Comision Nacional de Energia Atomica	CNEA	AR
14 partner	Universidad de Buenos Aires	UBA	AR
15 partner	Universidad Nacional de La Plata	UNLP	AR
16 partner	Universidad Nacional de Mar del Plata	UNMP	AR
17 partner	Centro Brasileiro de Pesquisas Fisicas	CBPF	BR
18 partner	Universidade do Estado de Rio de Janeiro	UERJ	BR
19 partner	Universidade Federal de Rio de Janeiro	UFRJ	BR
20 partner	Universidade Estadual Paulista	UNESP	BR
21 partner	Universidade Estadual de Campinas	UNICAMP	BR
22 partner	Universidade do Sao Paulo	USP	BR
23 partner	Pontificia Universidad Catolica de Chile	PUCC	CL
24 partner	Universidad Tecnica Federico Santa Maria	UTFSM	CL
25 partner	Benemerita Universidad Autonoma de Puebla	BUAP	MX
26 partner	Centro de Investigacion y de Estudios Avanzados	CINVESTAV	MX
27 partner	University of Guanajuato	UGTO	MX
28 partner	Universidad Michoacana de San Nicolas de Hidalgo	UMSNH	MX
29 partner	Universidad Nacional Autonoma de Mexico	UNAM	MX

2. List of *partner organisations*

3. Project summary

The High Energy Physics (HEP) European scientific community has developed cuttingedge, large-scale facilities that make it a worldleader.

Particle Physics Programmes in Europe are attracting participation of groups from non-European countries, in particular from Latin America.

In the reciprocal direction, the Pierre Auger Observatory for High Energy Cosmic Rays, recently established in Argentina, receives a large European participation.

The Latin American HEP community is composed of about 1000 physicists and engineers, more than a half young physicists, graduates and PhD's.

In Europe, Latin American physicists collaborate with Research Institutions, Universities and with the European Laboratory for Particle Physics (CERN).

Current trend is to increase participation in CERN, in view of the start-up of the Large Hadron Collider (LHC). However, large scale LA-Europe collaboration is recent and needs to be consolidated.

The EPLANET program will support visits from Argentina, Brazil, Chile and Mexico to CERN and other European Institutions and from European countries to the AUGER

Observatory, with short exchanges (1-2 months) for senior and longer exchanges (2-12 months) for junior investigators, for a total of about 1800 months.

The project is structured through a set of 9 work packages addressing the mobility of Early Stage Researches (ESR) and Experienced Researchers (ER) to those installations where most of the research works in High Energy Physics (HEP) are taking place, LHC accelerator in Europe and Pierre Auger Observatory in Argentina. One of the work packages addresses also technological developments in medical physics related to HEP.

Scientific results thereby obtained will parallel advanced training and acquisition of new technologies in accelerator and detector physics, medical physics and ICT.

EPLANET will foster the community and develop internal Latin-American collaboration to reach the critical scientific mass and profit from the educational, technological and industrial impact of HEP.

The detachment of European ER and ESR scientists in Latin-America will strengthen research partnership between Latin America and Europe.

EPLANET will foster a sustainable collaboration between Europe and Latin America in HEP and associated technologies.

PART B

4. Quality of the Exchange Programme

4.1 <u>Objectives and relevance of the joint research exchange programme</u>

The main objective of the Project is to create and reinforce networks for joint research projects and for high-level training of personnel both in European and other Latin-American Institutes/universities.

These networks will promote international collaborative ventures and improve internal Latin-American collaboration by following examples of the successful networks among the European partners. The Latin-American partners should thus achieve a scientific critical mass and profit from the educational, technological, industrial and social impact with European HEP.

The detachment of European senior and junior scientists to Latin-America will contribute to the training, to the improvement of the educational system and to the strengthening of links between Latin America and Europe.

The project will be the basis to foster a sustainable collaboration between Europe and Latin America in the field of HEP and associated technologies.

The exchange scheme will focus on the following areas of activity: LHC experiments¹, Auger experiment, Particle Physics Theory, Medical imaging, Accelerator technologies, Scientific computing and the GRID.

The size of the exchange scheme is based on the size of the participating organizations and on their potential to establish sustainable and fruitful collaborations.

We propose to structure the exchange programme around nine work packages (Table 1) each corresponding to a well defined scientific objective in which a set of clearly specified tasks is identified. For each work package we nominate a senior scientist representative of each participating institution.

There will be two types of exchanges:

- short term exchanges (1 to 2 months detachment) for senior scientists;
- long/medium term exchanges (2 to 12 months) to allow the active, in-depth involvement of junior scientists in the projects.

¹ ALICE, ATLAS, CMS and LHCb are the 4 major experiments operating at the LHC accelerator.

Table 1- List of Work Packages

Work package No	Work package title	Lead Partner organisation short name	Start month	End month
1	ALICE Experiment	CERN (INFN, BUAP, CINVESTAV, UFRJ, UGTO, UNAM, UNICAMP, USP)	M1	M48
2	ATLAS Experiment	CERN (IN2P3, UB, UV, UNLP, UBA, UFRJ, USP, PUCC, UTFSM)	M1	M48
3	CMS Experiment	CERN (CIEMAT, CBPF, UERJ, UNESP, CINVESTAV, BUAP, UGTO, UMSNH)	M1	M48
4	LHCb Experiment	CERN (IN2P3, UFRJ, CBPF)	M1	M48
5	General (TH, other exp.))	Roma I (CERN, CPT, INFN, UB, USC, UV, CAB, CBPF, CINVESTAV, UFRJ, PUCC, UGTO, UNAM, UNLP, USP)	M1	M48
6	Accelerator technologies	CERN (INFN/LNF, IN2P3/LAPP, IN2P3/LAL, CIEMAT, CINVESTAV, UNLP, UNMP, UNICAMP, USP)	M1	M48
7	Medical Applications: Quality Assurance in Hadrontherapy	INFN (CERN, CIEMAT, UCM, UV, IN2P3, BUAP, CINVESTAV, UGTO, UNAM)	M1	M48
8	Scientific computing	CERN (CIEMAT, UERJ, UNESP, UNAM, UNLP, UTFSM)	M1	M48
9	Pierre Auger Experiment	INFN (Roma I, IN2P3, LIP, Leeds, UAH, UCM, USC, UV, CBPF, CNEA, UBA, UNLP, USP, CINVESTAV, UNAM)	M1	M48
	TOTAL 9			

Table 2- Work Packages²

Work package number	1	Start date or starting event:	M1
Work package title	ALIC	E Experiment	
Partner short name		, <i>INFN /</i> BUAP, CINVESTAV, UFF AMP, USP	RJ, UGTO, UNAM,

Objectives

Selection, processing and analysis of physics data from the ALICE experiment at the Large Hadron Collider

Description of work

Task 1.1 : Calibration of ACORDE (ALICE Cosmic Ray Detector), optimization of data taking conditions and run with cosmic rays. (Arturo Fernandez-Tellez)

Task 1.2 : Operation of the trigger V0 detector (device made of two arrays of scintillating counters installed on both sides of the interaction point). Selection of interesting events for the study of high-density nuclear matter. (Gerardo Herrera)

Task 1.3 : Development of analysis tools and data analysis of events taken with proton and heavy-ion beams. (Karel Safarik/ Guy Paic)

Task 1.4 : Organization of workshops and seminars addressed to the participants in ACORDE and V0 subdetectors and to the ALICE Collaboration in general. (Paolo Giubellino/ Guy Paic)

Deliverables

D1.1 : Report on ACORDE cosmic trigger detector calibration and operation.

D1.2 : Report on the operation of the minimum bias trigger based on the V0 detector.

D1.3 : Results on multimuon events detected with ACORDE trigger and on proton-proton and heavy-ion events, including publications in scientific journals.

D1.4 : Summary of Presentations and results of the workshops.

Researchers involved					
Number	Scientist	On deta	achment	Duration	To work
of grants	Туре	from	to	(months)	on task(s)
4	ER	BUAP	CERN	20	1.1,1.2
7	ESR	BUAP	CERN	35	1.1
8	ER	CERN	BUAP	8	1.3
8	ER	CERN	UNAM	8	1.3,1.4
4	ER	CERN	USP	4	1.3
6	ER	CIEMAT	UNAM	6	1.3
5	ER	CINVESTAV	CERN	24	1.2,1.3,1.4
2	ESR	CINVESTAV	CERN	10	1.3
4	ER	INFN	CINVESTAV	4	1.3
4	ESR	INFN	CINVESTAV	12	1.3
3	ER	INFN	UFRJ	7	1.3
4	ESR	INFN	UNAM	9	1.3
1	ESR	UGTO	CERN	2	1.3

² The planning of a work package should be sufficiently detailed to justify the proposed effort and to allow progress monitoring by the Commission. A work package of an IRSES proposal may concern the exchange of researcher, the joint research and training activities or joint workshops and seminars, as well as other networking activities.

6	ER	UNAM	CERN	30	1.3,1.2
8	ESR	UNAM	CERN	35	1.3,1.2
1	ER	UNAM	IN2P3	5	1.3
1	ESR	UNAM	IN2P3	5	1.3
1	ESR	UNAM	INFN	3	1.3
2	ER	UNAM	USC	2	1.3
5	ER	Unicamp	CERN	9	1.3,1.4
4	ESR	Unicamp	CERN	16	1.3
6	ER	USP	CERN	8	1.3
6	ESR	USP	CERN	30	1.3

Work package number	2	Start date or starting event:	M1
Work package title	ATLA	S Experiment	
Partner short name	CERN UTFSI	, IN2P3, UB, UV / UNLP, UBA, ™ M	UFRJ, USP, PUCC,

Selection, processing, validation and analysis of physics data from the ATLAS experiment at the Large Hadron Collider.

Description of work

Task 2.1 : Optimization and validation of software for selection of physics events in the ATLAS trigger system, including selection of events containing electrons and photons. Work performed in the framework of established ATLAS working groups that monitor progress through regular meetings with audio/video conferencing to facilitate remote participation.

Task 2.2 : Development and operation of detector, electronics, computing and software tools, including tools related to the distributed processing and analysis of ATLAS event data. Work performed in the framework of established ATLAS working groups that monitor progress through regular meetings with audio/video conferencing to facilitate remote participation.

Task 2.3 : Analysis of physics data from the ATLAS experiment, including proton-proton and heavy-ion collisions. Work performed in the framework of established ATLAS working groups that monitor progress through regular meetings with audio/video conferencing to facilitate remote participation.

Task 2.4 Organization of workshops and seminars, including an annual ATLAS Latin-American workshop with audio/video conferencing to facilitate remote participation. The participants will include scientists from the partner organizations as well as members of the ATLAS Collaboration at large. (Nick Ellis assisted by an Organizing Committee with representatives from all partner Latin-American countries).

Deliverables

D2.1 : Reports on the measured performance of the trigger selection in ATLAS, including results for the selection of electrons and photons. Deliverable includes publications in scientific journals and/or conference proceedings, as well as ATLAS internal notes and presentations.

D2.2 : Documentation on software tools developed within the project in the form of ATLAS internal notes and/or web pages.

D2.3 : Results from analysis of physics data events in the ATLAS experiment, including results for samples with electrons and photons in the final state. Deliverable includes publications in scientific journals as well as ATLAS internal notes and presentations at conferences.

D2.4: Report on each of the annual ATLAS Latin-American workshops, including a concise summary of the results presented and references to publications and other output.

Researchers	s involved				
Number	Scientist	On det	achment	Duration	To work
of grants	Туре	from	to	(months)	on task(s)
4	ER	CERN	PUCC	4	2.1
4	ER	CERN	UBA	4	2.1
3	ER	CERN	UFRJ	3	2.1
5	ER	CERN	UNLP	5	2.3
4	ER	CERN	USP	4	2.4
4	ER	CERN	UTFSM	4	2.3
3	ER	IN2P3	PUCC	3	2.3
3	ER	IN2P3	UBA	3	2.3
3	ER	IN2P3	UFRJ	3	2.3
2	ER	PUCC	CERN	7	2.1,2.2,2.3,2.4
10	ESR	PUCC	CERN	50	2.1,2.2,2.3
2	ER	PUCC	UB	3	2.2
1	ESR	PUCC	UB	2	2.3
1	ER	PUCC	UV	2	2.2,2.3,2.4
1	ESR	PUCC	UV	2	2.3
8	ER	UBA	CERN	28	2.3,2.2,2.1
7	ESR	UBA	CERN	35	2.1,2.2,2.3
1	ER	UBA	CPT	1	2.1
2	ESR	UBA	CPT	2	2.2,2.1
1	ER	UBA	UB	1	2.3
3	ESR	UBA	UB	3	2.1,2.2
2	ER	UFRJ	CERN	10	2.,3, 2.4,2.2, 2.4
5	ESR	UFRJ	CERN	25	2.1,2.2,2.3
4	ER	UNLP	CERN	10	2.2, 2.4, 2.1, 2.3, 2.4
11	ESR	UNLP	CERN	55	2.1, 2.3
5	ER	USP	CERN	10	2.2,2.3
5	ESR	USP	CERN	12	2.2,2.3
4	ER	UTFSM	CERN	16	2.3,2.4
12	ESR	UTFSM	CERN	49	2.1,2.3,2.2
2	ER	UV	UNLP	2	2.3,2.4
4	ESR	UV	UNLP	4	2.3
4	ER	UV	USP	4	2.2

Work package number	3	Start date or starting event:	M1
Work package title	CMS	Experiment	
Partner short name		, <i>CIEMAT /</i> CBPF, UERJ, UNESP, C), UMSNH	INVESTAV, BUAP,

Data taking at CERN, Detector Hardware, Computing, Physics Analysis.

Description of work

Task 3.1 : Participation to the operation of CMS in the first physics runs. Participation to the working groups for early calibrations and alignment of the detectors.

Task 3.2 : Work on the detectors electronics of the experiment. Synchronization of the detector response with the LHC clock. Participation to the monitoring, calibration and other specific tasks for the muon system and for the very forward hadron calorimetry (Castor).

Task 3.3 : Development of analysis tools and participation to the data analysis. Development of diagnosis tools to assess the performance of the computing model of the experiment, and CMS GRID. Participation to the data quality monitoring of the offline data reconstruction. Tuning of the reconstruction algorithms and of the calibration and alignment tools. Contribution to the early physics measurements on minimum bias events in LHC and to the preliminary measurements on the Electroweak "standard candles" (Z, W, top).

Task 3.4 : Organization of workshops and seminars addressed to the first results of the data analysis. Regular video-conference meeting among the scientists resident or visiting CERN and Latin American communities participating to the project.

Deliverables

D3.1 : Report about shifts on the Data Acquisition period. Talks and contributions within the working groups. Analysis notes and preliminary reports on early analysis of data.

D3.2 : Report on electronics and Detectors work. Talks and contributions on synchronization calibration and alignment results.

D3.3 : Results on physics analysis events including all type of publications. Reports on the performance of the computing and grid infrastructures of CMS.

D3.4 : Results and electronics proceedings of the workshop.

1 3 2 2	Scientist Type ER ESR ER ESR	On detac from BUAP BUAP	to CERN	Duration (months) 10	To work on task(s)
2 1 3 2 2 2	ER ESR ER	BUAP BUAP	CERN	1 1	on task(s)
1 3 2 2	ESR ER	BUAP		10	
3 2 2	ER		OFDN	10	3.3
<mark>2</mark> 2		~~~~	CERN	5	3.3
2	FSR	CBPF	CERN	13	3.3,3.4
	LOIN	CBPF	CERN	9	3.3
•	ER	CERN	CBPF	2	3.3
2	ER	CERN	CINVESTAV	2	3.3
6	ER	CERN	UERJ	6	3.3
2	ER	CERN	UFRJ	2	3.3
1	ER	CERN	UGTO	1	3.3
2	ER	CERN	USP	2	3.3
2	ER	CIEMAT	CINVESTAV	2	3.3
2	ER	CINVESTAV	CERN	10	3.1,3.3
1	ESR	CINVESTAV	CERN	5	3.1
16	ER	UERJ	CERN	56	3.2,3.3
17	ESR	UERJ	CERN	79	3.2,3.3
3	ER	UGTO	CERN	9	3.3
2	ESR	UGTO	CERN	6	3.3
1	ER	UGTO	INFN	2	3.3
4	ER	UMSNH	CERN	4	3.3
4	ESR	UMSNH	CERN	12	3.3
16		UNESP	CERN	24	3.3

Work package number	4	Start date or starting event:	M1
Work package title	LHCb Experiment		
Partner short name	CERN	, IN2P3 / UFRJ, CBPF	

Participation in data taking, selection, processing, validation and analysis of physics data from the LHCb experiment at the Large Hadron Collider.

Description of work

Task 4.1 : Participation in data taking and quality control of LHCb data with emphasis on muon chamber performance.

Task 4.2 : Trigger commissioning and optimisation as a function of machine running scenarios Task 4.3 : Calibration and optimization of muon identification performance and analysis of physics data.

Task 4.4 : Organization of workshops and seminars addressed to the trigger and muon chambers community, as well as to the LHCb collaboration in general.

Task 4.5 : Computing of the experiment, and LHCb GRID.

Deliverables

D 4.1 : Logging and characterization of the detector performance as a result of taking shifts as shift leader, data manager and off-line data quality manager.

D 4.2 : High Level Trigger settings and performance results.

D 4.3 : Results on muon identification performance and analysis of physics data including publications in physics journals.

D 4.4 : Summary of presentations and results of the workshops.

Researchers	involved				
Number of grants	Scientist Type	On detao from	chment to	Duration (months)	To work on task(s)
3	ER	CBPF	CERN	14	4.3
3	ESR	CBPF	CERN	13	4.1,4.5
8	ER	CERN	CBPF	8	4.3
8	ER	CERN	UFRJ	8	4.3
3	ER	IN2P3	UFRJ	3	4.4
2	ER	UFRJ	CERN	10	4.3,4.4, 4.5
5	ESR	UFRJ	CERN	25	4.1,4.3,4.2,4.5

Work package number	5 Start date or starting event: M1
Work package title	General (TH, other experiments)
Partner short name	<i>CERN, CPT, Roma I, INFN, UB, USC, UV /</i> CAB, CBPF, CINVESTAV, UFRJ, PUCC, UGTO, UNAM, UNLP, USP

To train top Latin American graduate students for extended periods at CERN (minimum one month), and to establish collaborations with young and senior researchers in CERN/Ph-TH and the Physics Departments concerned in LA.

The research involved includes:

Beyond the Standard Model (BSM) studies: Higgs models, Large Extra Dimensions, String Theory, Asymmetry matter/antimatter.

Standard Model (SM) problems: Practical computations of SM processes including even generators, precision computations, study of Heavy Ion collisions in the hydro dynamical approximation, to extend the results of Brookhaven's RHIC to the LHC heavy ion program.

We also expect collaboration on the Astroparticle physics domain. This includes the signatures of dark matter candidates at the LHC, ultra-high energy cosmic rays and the Auger observatory, and similar related topics.

The study of antihydrogen atoms created in the AD facility could improve our knowledge on the reason behind the asymmetry between matter and antimatter.

Description of work

Task 5.1 : BSM – Analysing data from LHC for signatures of new physics (Ch. Grojean, L. Alvarez-Gaume, M.A. Mangano, J. Ellis)

Task 5.2 : Analysing data from the LHC Heavy Ion Programme (U. Wiedemann, Ivan Schmidt). Task 5.3 : Constraining candidates for Dark Matter, constraints on cosmological parameters. (J. Ellis, Ch. Grojean).

Task 5.4 : Methods of Theoretical Physics.

Task 5.5 : Subnuclear and Nuclear Physics Experiments.

Deliverables

D5.1 : Results on : Constraining models of Supersymmetry (SUSY) and Extra Dimensions.

D5.2 : Results on : Determining properties of Hot QCD matter from jet quenching signature.

D5.3 : Results on : Constraining candidates for Dark Matter.

D5.4 : Results on : Improving mathematical models for the description of physical quantum systems.

D5.5 : Results and contributions to the experiments performed in the facilities FAIR and AD.

D5.6 : Specialized training of LA young researchers by tutoring, active participation in seminars and workshops and CERN wide Academic Training Programme.

Researchers	involved				
Number of grants	Scientist Type	On det from	On detachment from to		To work on task(s)
7	ER	CAB	CERN	7	5.3,5.1
1	ESR	CAB	CERN	1	5.3
5	ER	CAB	CPT	5	5.1
4	ER	CAB	IN2P3	4	5.1,5.3
1	ESR	CAB	IN2P3	1	5.1
4	ER	CAB	INFN	4	5.1,5.3
1	ESR	CAB	INFN	1	5.1
2	ER	CAB	USC	2	5.1
3	ESR	CBPF	CPT	10	5.3
1	ER	CERN	CAB	1	5.3
1	ER	CERN	CBPF	1	5.1
1	ER	CERN	CNEA	1	5.3
1	ER	CERN	PUCC	1	5.1
3	ER	CERN	UFRJ	3	5.5,5.1

2	ER	CERN	UNAM	2	5.2
1	ER	CERN	UTFSM	1	5.1
-	ER		CBPF		5.5
4		CINVESTAV	CERN	4	5.3
1	ER		-	5	
1	ER	CINVESTAV	CIEMAT	1	5.3
2	ER	CINVESTAV	INFN	10	5.3
1	ESR	CINVESTAV	INFN	5	5.1
1	ESR	CINVESTAV	USC	5	5.3
3	ER	CINVESTAV	UV	4	5.4
1	ESR	CINVESTAV	UV	1	5.1
9	ER	CPT	CAB	10	5.4
1	ESR	CPT	CAB	1	5.4
9	ER	CPT	CBPF	14	5.4,5.3
4	ESR	CPT	CBPF	5	5.4
10	ER	CPT	PUCC	10	5.4
2	ESR	CPT	PUCC	2	5.4
3	ER	CPT	UBA	4	5.4
1	ER	CPT	UNAM	<u>4</u> 1	5.4
3	ER	CPT	UNLP	3	5.3
			-		
4	ER		PUCC	4	5.2
8	ESR	INFN	PUCC	24	5.2
4	ER	INFN	UNICAMP	4	5.2
2	ER	PUCC	CPT	2	5.2
1	ER	PUCC	UB	1	5.1,5.3
1	ER	PUCC	UV	2	5.1,5.3
2	ER	Roma1	CBPF	2	5.2
2	ER	Roma1	CINVESTAV	2	5.4
2	ER	Roma1	PUCC	2	5.4
4	ER	Roma1	UBA	4	5.4
1	ESR	Roma1	UBA	1	5.1
2	ER	Roma1	UERJ	2	5.4
1	ER	Roma1	UNAM	<u> </u>	5.1
2	ESR	Roma1	UNAM	2	5.1
	ESR		UNLP		5.1
2		Roma1		2	
2	ESR	Roma1	USP	2	5.2
4	ER	UB	PUCC	4	5.3,5.1
2	ESR	UB	PUCC	2	5.3
5	ER	UB	UBA	5	5.2,5.3,5.1
4	ER	UB	UNLP	4	5.3,5.1,5.2
1	ESR	UB	UNLP	1	5.1
2	ER	UFRJ	CERN	10	5.1,5.2
3	ESR	UFRJ	CERN	15	5.1,5.3
1	ER	UGTO	CERN	1	5.1
2	ESR	UGTO	CERN	3	5.1
2	ER	UGTO	INFN	4	5.1
1	ER	UNAM	CERN	1	5.3
1	ER	UNAM	INFN	3	5.3
				3	5.3
1	ESR	UNAM			
1	ER	UNAM	UAH	1	5.2
1	ER	UNAM	UB	1	5.3
1	ESR	UNLP	CERN	5	5.1
3	ER	UNLP	CPT	4	5.1
2	ER	UNLP	UB	3	5.1
2	ESR	UNLP	UB	3	5.1

1	ER	UNLP	UV	1	5.1
2	ESR	UNLP	UV	2	5.1
1	ER	USC	CAB	3	5.4
5	ER	USC	UBA	13	5.4
2	ER	USC	UNAM	3	5.4,5.2
2	ESR	USC	UNAM	6	5.2
1	ER	USC	UNLP	2	5.4
6	ER	USC	USP	19	5.2,5.4,5.5
3	ESR	USC	USP	12	5.2,5.5
1	ER	USC	UTFSM	1	5.2
3	ER	UV	CAB	3	5.3
8	ESR	UV	CAB	8	5.1
2	ER	UV	CINVESTAV	2	5.1
2	ESR	UV	CINVESTAV	2	5.1

Work package number	6	Start date or starting eve	nt:	M1	
Work package title	Accele	ator technologies			
Partner short name		INFN/LNF, IN2P3/LAPP, STAV, UNLP, UNMP, UNICAI		,	CIEMAT,

Participate to the R&D on accelerator technology necessary for LHC upgrade and future Linear Colliders facilities like ILC or CLIC.

Description of work

The work involves Beam Physics theoretical and simulation studies and also designing, prototyping and tests of components presently well above the state of the art. The existing Test facilities like the CLIC Test facility CTF3 at CERN making beam studies and bench-marking simulations codes would also provide a practical experience and excellent training to the new generation.

Work and results will be discussed and reported in existing workshop like the CTF3 Technical Meetings and the Linear Collider (CLIC & ILC) workshops.

Task 6.1 : High precision Power Supplies (S.Pittet/CERN with possible participation of CIEMAT, UNLP, UNMP, UNICAMP).

Task 6.2 : Participation in existing test facilities (R.Corsini/CERN with possible participation of INFN/LNF, IN2P3/LAPP, IN2P3/LAL, CIEMAT)

Task 6.3 : Equipment stabilisation in the nanometre range (C.Hauviller with possible participation of IN2P3/LAPP).

Task 6.4: Participation to upgrade of LHC injectors like LINAC4 (M.Vretenar/CERN), SPL (R.Garoby/CERN) or PS2 (M.Benedikt/CERN) with the possible participation to all mentioned laboratories

Deliverables

D6.1 : Design of power supplies.

- D6.2 : Report of the tests performed at CTF3
- D6.3 : Feasibility report.
- D6.4 : Design reports

Researchers in	nvolved				
Number	Scientist	On det	On detachment		To work
of grants	Туре	from	to	(months)	on task(s)
1	ER	CERN	CINVESTAV	1	6.2
1	ER	CERN	UNICAMP	1	6.2
1	ER	CERN	UNLP	1	6.2
4	ER	CERN	UNMP	4	6.1
4	ER	CERN	USP	4	6.2
3	ER	CINVESTAV	CERN	4	6.2
1	ER	CINVESTAV	CIEMAT	1	6.2
1	ESR	CINVESTAV	CIEMAT	1	6.2
1	ER	Unicamp	CERN	4	6.1
2	ER	UNLP	CERN	4	6.4
4	ER	UNMP	CERN	8	6.1
6	ESR	UNMP	CERN	36	6.1

Work package number	7 Start date or starting event: M1
Work package title	Medical Applications: Quality Assurance in Hadrontherapy
Partner short name	<i>INFN, CERN, CIEMAT, UCM, UV, IN2P3 /</i> BUAP, CINVESTAV, UGTO, UNAM

Develop codes, design and construct prototypes of novel detectors for the control and verification of the doses given in hadrontherapy cancer treatments

Description of work

Task 7.1 : Optimization and validation of the simulation software used to design detectors for Quality Assurance in the irradiation with protons and carbon ion beams (INFN, UV, CIEMAT, CERN).

Task 7.2 : Construct and test of the new detectors with radioactive sources and with particle beams made available by CERN and other European laboratories (INFN-TERA, UV, CERN) Task 7.3 : Critical analysis of the acquired data and plans for the actual implementation of the most promising detection schemes. (INFN-TERA, UV)

Deliverables

D7.1 : Report on the performances of the simulation programs in view of the particular application to Quality Assurance in hadrontherapy.

D7.2 : Description of the hardware options chosen by applying the software tools of WP1 (Task .7.1).

D7.3 : Results of the measurement performed on the first detector and comparison with the simulation expectations.

D7.4 : Results of the measurement performed on the second detector and comparison with the simulation expectations.

D7.5: Annual Hadrontherapy Workshop , Co-organised with ENLIGHT

D7.6 Training Courses in Hadrontherapy related topics

Research	Researchers involved						
Number	Scientist	On det	achment	Duration	To work		
of grants	Туре	from	to	(months)	on task(s)		
2	ER	BUAP	CERN	10	7.1		
1	ESR	BUAP	CERN	5	7.2		
4	ER	CERN	CINVESTAV	4	7.1		
2	ER	CIEMAT	BUAP	2	7.1		
2	ER	CINVESTAV	CERN	2	7.3		
1	ER	CINVESTAV	CIEMAT	1	7.2		
1	ER	CINVESTAV	INFN	6	7.3		
1	ER	UGTO	CERN	3	7.1		
2	ER	UNAM	CERN	2	7.3		
1	ESR	UNAM	CIEMAT	5	7.2		
2	ER	UNAM	INFN	2	7.2		
1	ER	UNAM	UCM	2	7.2		
1	ESR	UNAM	UCM	2	7.3		
2	ER	UNAM	UV	4	7.2		
8	ESR	UV	CINVESTAV	8	7.1,7.2		

Work package number	8	Start date or starting event:	M1
Work package title	Scient	ific Computing	
Partner short name	CERN	, <i>CIEMAT /</i> UERJ, UNESP, UNAM, UN	NLP, UTFSM

Participation in the development of the common scientific software required by HEP experiments and their computing infrastructure. This common scientific software provides the foundation and basic building blocks from which the experiments write their specific applications or programs covering from Monte Carlo generators and detector simulation, trigger and reconstruction, to final physics analysis. Participation also in the development and deployment of data management services, the workload management tools and end-user interfaces to enable the scientists to use computing resources distributed worldwide (Grid).

Description of work

Task 8.1 : Development of the Geant4 detector simulation toolkit. Participation in one or more of the Geant4 working groups that develop the different physics models (hadronic and electromagnetic) and the simulation infrastructure such as the geometry and magnetic field descriptions..(J. Apostolakis)

Task 8.2 : Test, validation and tuning of the new generation of Monte Carlo particle generators. These new generators such as Pythia8 and Herwig++ have been recently developed and are written in C++. (A. Ribon)

Task 8.3 : Development of the ROOT data analysis system. Participation in the analysis and statistical packages that are part of ROOT. Development and deployment of the parallel ROOT facility (PROOF).(A. Newman, G. Ganis)

Task 8.4 : Development of the Ganga front-end for job definition and management. This will be the participation in the development and deployment of this easy to use interface to local and distributed computing resources such as the various Grids. (J. Moscicki)

Deliverables

The tasks described in this work package are usually part of the program of work of the various well-established projects covering this very wide domain of scientific computing for the HEP experiments. Therefore the deliverables should be in-lined with the corresponding deliverables of the mother projects. Typically the deliverables on this kind of tasks are software releases, documentation, scientific publications, deployment of computing services, etc. The software development projects have typically one or two major releases a year as deliverables. The deployment of the data and workload management tools on a given site are also deliverables.

- D8.1 : Releases of Geant4 detector simulation toolkit.
- D8.2 : Results on the tuning of Monte Carlo Particle Generators.
- D8.3 : Releases of the ROOT data analysis system.
- D8.4 : Deployment of Ganga to local and distributed computing resources.
- D8.5 : Workshop on new cernlib development.

Research	ers involve	ed	-		
Number	Scientist	On deta	chment	Duration	To work
of grants	Туре	from	to	(months)	on task(s)
1	ER	CERN	CBPF	1	8.4
4	ER	CERN	UERJ	4	8.4
1	ER	CERN	UNLP	1	8.3
1	ER	CERN	USP	1	8.4
1	ER	CERN	UTFSM	1	8.3
1	ER	CIEMAT	UERJ	1	8.4
3	ER	CIEMAT	UNAM	5	8.4
1	ER	CIEMAT	UNICAMP	2	8.4
2	ER	CIEMAT	UNLP	2	8.2,8.3
2	ER	CIEMAT	UTFSM	2	8.4
1	ER	UNAM	Leeds	2	8.4

Work package number	9	Start date or starting event:	M1	
Work package title	Pierre Auger Experiment			
Partner short name		I, INFN, IN2P3, LIP, Leeds, UAH, UC. ., UBA, UNLP, USP, CINVESTAV, UN		

Objectives

Commissioning of new detectors and data taking at the Pierre Auger Observatory for very high energy cosmic rays (Malargüe - Argentina)

Description of work

Task 9.1 : Commissioning of the new telescopes HEAT at high elevation angle. Task 9.2 : Data taking and analysis of the enhanced Pierre Auger Observatory. Task 9.3 : Implementation of remote monitoring and control of the data taking at the Pierre Auger Observatory.

Deliverables

- D9.1 : Integration of the new telescopes HEAT with the baseline system.
- D9.2 : Report on the Pierre Auger Observatory data taking and physics results.
- D9.3 : Report on the implementation of remote monitoring of the Pierre Auger Observatory.

Number	Scientist	On de	etachment	Duration	To work
of grants	Туре	from	to	(months)	on task(s)
1	ER	CBPF	CPT	3	9.2
2	ESR	CBPF	CPT	7	9.2
1	ER	CINVESTAV	INFN	5	9.2
1	ER	CNEA	IN2P3	1	9.2
1	ESR	CNEA	IN2P3	3	9.2
1	ER	CNEA	INFN	1	9.2
5	ESR	CNEA	INFN	10	9.2
1	ER	CNEA	INFN	1	9.2
1	ESR	CNEA	INFN	5	9.2
2	ER	CNEA	UAH	2	9.2
24	ER	IN2P3	UNLP/OPA	24	9.2,9.3
16	ESR	IN2P3	UNLP/OPA	16	9.2,9.3
12	ER	INFN	UNLP/OPA	22	9.3,9.1,9.2
24	ESR	INFN	UNLP/OPA	48	9.2,9.1
3	ESR	INFN	CAB	3	9.1
3	ESR	INFN	UNLP	3	9.2
4	ER	Leeds	UNAM	4	9.2,9.3
3	ESR	Leeds	UNAM	3	9.2
4	ER	Leeds	UNLP	4	9.2,9.3
3	ESR	Leeds	UNLP	3	9.2
2	ER	LIP	UNLP/OPA	2	9.2,9.3
4	ESR	LIP	UNLP/OPA	4	9.2,9.3
1	ER	Roma1	UNLP/OPA	1	9.2
4	ER	UAH	CNEA	4	9.2
4	ESR	UAH	CNEA	4	9.2
3	ER	UAH	UNAM	4	9.3
2	ESR	UAH	UNAM	3	9.3
4	ESR	UBA	USC	18	9.3,9.2
3	ER	UCM	UNLP/OPA	3	9.2
5	ESR	UCM	UNLP/OPA	5	9.2
3	ER	UCM	UNLP	3	9.2
5	ESR	UCM	UNLP	5	9.2
1	ER	UNAM	CIEMAT	5	9.2
1	ER	UNAM	IN2P3	5	9.2
1	ESR	UNAM	INFN	3	9.2
1	ER	UNAM	Leeds	2	9.2
1	ER	UNAM	UAH	1	9.3
1	ER	UNAM	USC	1	9.2
2	ER	UNLP	INFN	4	9.2, 9,3
2	ESR	UNLP	INFN	4	9.2, 9,3
4	ESR	UNLP	Leeds	7	9.2, 9.3
2	ER	UNLP	UCM	2	9.2,9.2, 9,3
2	ESR	UNLP	UCM	3	9.2
2	ER	UNLP	USC	6	9.2, 9.3

2	ESR	UNLP	USC	6	9.2, 9.3	1
12	ER	USC	UNLP/OPA	12	9.2,9.3	
8	ESR	USC	UNLP/OPA	9	9.2,9.3	
4	ER	USC	UBA	7	9.2	
4	ER	USC	UNAM	4	9.2	
1	ER	USC	UNLP	2	9.2	
2	ER	USC	USP	3	9.2,9.3	
1	ER	UV	UNLP/OPA	1	9.2	
2	ESR	UV	UNLP/OPA	2	9.2	
4	ESR	UV	USP	4	9.2	

Table 3 - List of Milestones

			List and schedule of milestones		
Milesto ne no.	Milestone name	WPs no's.	Lead partner organisation short name	Delivery date	Comments
1	Calibration	1	CERN (INFN, BUAP, CINVESTAV, UFRJ, UGTO, UNAM, UNICAMP, USP)	After 2 nd year	Report
2	V0 operation	1	CERN (INFN, BUAP, CINVESTAV, UFRJ, UGTO, UNAM, UNICAMP, USP)	After 2 nd year	Report
3	Physics results	1	CERN (INFN, BUAP, CINVESTAV, UFRJ, UGTO, UNAM, UNICAMP, USP)	End of project	Publication
4	Trigger performance	2	CERN (IN2P3, UB, UV, UNLP, UBA, UFRJ, USP, PUCC, UTFSM)	After 2 nd year	Report
5	Physics results	2	CERN (IN2P3, UB, UV, UNLP, UBA, UFRJ, USP, PUCC, UTFSM)	End of project	Summ doc inc list publications.
6	Workshop	2	CERN (IN2P3, UB, UV, UNLP, UBA, UFRJ, USP, PUCC, UTFSM)	End of 1 st year (rep each year)	Workshop summary report
7	Data Acquisition	3	CERN (CIEMAT, CBPF, UERJ, <mark>UNESP</mark> , CINVESTAV, BUAP, UGTO, UMSNH)	End of each year	Report
8	Detector works	3	CERN (CIEMAT, CBPF, UERJ, UNESP, CINVESTAV, BUAP, UGTO, UMSNH)	End of project	Report
9	Physics Analysis Result	3	CERN (CIEMAT, CBPF, UERJ, <mark>UNESP</mark> , CINVESTAV, BUAP, UGTO, UMSNH)	At the end of each Analysis	Publication
10	Muon ID perform.	4	CERN (IN2P3, UFRJ, CBPF)	After 2 nd year	Report
11	Trigger performance	4	CERN (IN2P3, UFRJ, CBPF)	After 2 nd year	Report
12	Physics results	4	CERN (IN2P3, UFRJ, CBPF)	End of project	Publication
13	Training of scientists	5	CERN (Roma I, CPT, INFN, UB, USC, UV, CAB, CBPF, CINVESTAV, UFRJ, PUCC, UGTO, UNAM, UNLP, USP)	Few months after arrival	
14	Physics results	5	CERN (Roma I, CPT, INFN, UB, USC, UV, CAB, CBPF, CINVESTAV, UFRJ, PUCC, UGTO, UNAM, UNLP, USP)	End of project	Publication
15	Feasibility study	6	CERN (INFN/LNF, IN2P3/LAPP, IN2P3/LAL, CIEMAT, CINVESTAV, UNLP, UNMP, UNICAMP, USP)	End of project	Report
16	Simulation	7	INFN (CERN, CIEMAT, UCM, UV, IN2P3, BUAP, CINVESTAV, UGTO, UNAM)	After 2 nd year	Report
17	Design of chosen instruments	7	INFN (CERN, CIEMAT, UCM, UV, IN2P3, BUAP, CINVESTAV, UGTO, UNAM)	End of project	Report
18	Results of the tests	7	INFN (CERN, CIEMAT, UCM, UV, IN2P3, BUAP, CINVESTAV, UGTO, UNAM)	End of project	Publication
19	Development of Ganga	8	CERN (CIEMAT, UERJ, <mark>UNESP</mark> , UNAM, UNLP, UTFSM)	End of project	Deployment
20	Commissioning of the new telescopes	9	INFN (Roma I, IN2P3, LIP, Leeds, UAH, UCM, USC, UV, CBPF, CNEA, UBA, UNLP, USP, CINVESTAV, UNAM)	After 1st year	Commissioning
21	Physics results	9	INFN (Roma I, IN2P3, LIP, Leeds, UAH, UCM, USC, UV, CBPF, CNEA, UBA, UNLP, USP, CINVESTAV, UNAM)	After 3 rd year	Publication

Table 4 - Gantt chart of secondments

s	ECONDEM	ENTS			v	ear 1				1			Ve	ar	2							Ve	ar 3							v	ear	4			
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ER1		UBA																																	5
ESR2		UNLP																																	5
ESR3		UNLP						_			_			_				4	_	++	_		_		_			_				$\left \right $		-	5
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ER3		CBPF						-			+			_				+			-		_											-	5
ER4	Roma1	CINVESTAV									+			-				+			-														5
ER5	Roma1	CINVESTAV									+																								5
ER4		UERJ																																	5
ER5		UERJ																			_														5
ER4		UBA						_	_		+			_				4	_	++	_				_	-		_		_		$\left \right $		-	5
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ER5		PUCC						-			+				-			+			-				-							+ +		-	5
ESR5		UNAM									-										-														5
ER6	Roma1	UNAM																																	5
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ESR2	INFN	CINVESTAV						_		++	-		+						_	+	+		_					_		_	\vdash			-	1
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ESR6	INFN	CAB									+							1																	9
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ESR7		UNLP/OPA																																	9
ESR8		UNLP/OPA									_							_																	9
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ER4		USP									+						_	+		++	+				-	-			++		-	+	-	+	2
ER5		PUCC									+							1		++					-	-	H		+++	-		+		+	2
ER6		UTFSM									T							1	1							1		+				$\uparrow \uparrow$			2
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ER14	CERN	UERJ																																	3
ER15		UERJ																																	3
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ER17		UGTO						_			-			_						$\left \right $	-				_	-	$\left \right $							+	3
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ER23	CERN	UFRJ																																	5
ER24	CERN	UFRJ																																	5
ER25	CERN	CAB					\square																						\square						5
ER26		UNAM				\square		_			_			_						$\left \right $	_		_		_	-	\square			_				-	5
ER27	CERN	CBPF UTFSM		$\left \right $	$\left \right $	$\left \right $		_		++					+		+	+	_	+	+	+	_	+		-	$\left \right $	+	+	_	$\left \cdot \right $	+	_	+	5 5
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ER30		PUCC						-	+	+	+	+	+	-	+			╡	-	+	+	+	-						+	-		+		+	5
ER31	CERN	CNEA			\square			+	+		+	\square		-				╡	+	+	+		+					+				$\uparrow \uparrow$	-	+	5
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Туре	From	То	1	2 3	3 4		_	_	_	9	10	11	12	1	2	3 4	1 5		_	8 9	10	1	1 1	2 1	1 2	3	4	_	_	_	_	10	11	12	1 :	2 3	3 4	_	_	_	_	10) 1	1 1	2	WP
ER33	CERN	UNMP				-	-		-	-					-	-		-	-					-	-	-		-		-	-	-		-	-			-	-	-			-		-	6
ER34	CERN	USP			1		-	-	+	+	-	_			-	+	+		-	+		c		+	-					-	-	-	-	-	-			+		-			+	+	+	6
ER35	CERN	CINVESTAV		+			-	-	+	+	-	_			-	+	+		-	-		-	-	-	-		\vdash	-	-		-	-		-	-			-		-	+	-	+	+	+	6
ER36	CERN	UNICAMP			e.		-	-	-	+	-	_			-	+	+		-	-	-	-	-	-	-			-	-		-	-		-	-	+	-	+			-	-	+	+	+	6
ER30	CERN	UNLP						-	-	+	-	_			-	+	+		-	+	+	-	-	+	-		$\left \right $	-	-	-	-	_	-	-	-	+	+	-		-	-	+	+	+	+	6
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ER2	CINVESTAV		++	+	-			_	+	-	-	_	+		+				-	-			-		-			-			+		-	+	+	-	-	7
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Table 5: Summary of Secondment Grants

Beneficiaries	Early Stage (months)	Experienced (months)	Number of Grants	Months Total
Roma1	7	14	21	21
CPT	8	42	42	50
IN2P3	16	36	52	52
INFN	99	41	73	140
LIP	4	2	6	6
CIEMAT	0	26	23	26
UAH	7	8	13	15
UB	3	13	16	16
UCM	10	6	16	16
USC	27	69	52	96
UV	28	12	40	40
CERN	0	108	108	108
Leeds	6	8	14	14
Total	215	385	476	600
Partners				
CAB	3	22	25	25
CNEA	18	5	12	23
UBA	58	30	26	88
UNLP	85	34	44	119
UNMP	36	8	10	44
CBPF	39	30	17	69
UERJ	79	56	33	135
UFRJ	65	30	19	95
UNESP	0	24	16	24
UNICAMP	16	13	10	29
USP	42	18	22	60
PUCC	54	17	21	71
UTFSM	49	16	16	65
BUAP	45	40	17	85
CINVESTAV	27	73	30	100
UGTO	11	19	13	30
UMSNH	12	4	8	16
UNAM	56	69	40	125
Total	695	508	379	1203
Grand Total	910	893	855	1803

Most of the exchanged personnel from EU to LA and from LA to EU are members of established experimental collaborations who have already acquired some commitment in the construction of parts of detector systems, for LHC or AUGER, and in the analysis of experimental data. Part of the scientists and engineers are engaged or interested in HEP related technologies. The proposed number of grants is defined to allow each senior scientist to develop and discuss the project ideas and each junior scientist to effectively integrate in the projects.

The duration and destinations of the different exchanges are optimized on the basis of the accumulated experience in the very successful HELEN network.

4.2 Scientific quality of the partners

Most Latin American Institutes/Universities and all Europeans are fully operational to join the network, as they are involved in common scientific programmes. The others will start to collaborate.

In table 6 it is shown a non exhaustive list of the domains of expertise of the participating institutions. More details about the scientific expertise of individual scientics in the partner institutions can be found in the proposal.

Most of the scientists involved in the programme have already substantial experience in international cooperation. In particular they have managed the HELEN network which involved more that 1000 months of intercontinental exchanges over 3 years.

The European partners participate in international projects that require the handling of visitors and exchanges as part of the everyday development of the activities.

As an example, the ATLAS and CMS experiments are collaborative efforts involving each more that 100 institutions and more that 2000 scientists and engineers from all over the world.

Each of the participating institutions features also high level computing resources interconnected via the CERN based GRID, a key factor for scientific collaboration at the worldwide level.

Table 6: Domains of expertise of Participants in EPLANET

				S	<u> </u>			(0				<i>i</i>
	High Perform. Computing	Electronics	Particle Detectors	Accelerator Technologies	Real Time Event Selection	Monte Carlo Generators	Monte Carlo simulation	Cosmic Rays Physics	High Energy Nuclear Coll.	SM Phys.	BSM Phys.	Medical Phys.
Beneficiaries												
Roma I	х		Х		Х		х	х	Х	Х	х	
INFN	Х	Х	Х	х	Х	х	Х	Х	Х	Х	Х	Х
CERN	Х	Х	Х	х	Х	х	Х	Х	Х	Х	Х	Х
CIEMAT	Х	Х	Х	х			Х					Х
UAH								х		Х	х	
UB			Х					х		Х	х	
UCM		х						х		Х	Х	
USC	х	х	Х					х		Х	Х	
UV	х		х					х		Х	х	Х
CPT								х		Х	Х	
IN2P3	х	х	х	х	х			х	Х	Х	Х	Х
LIP	х							х	Х			Х
Leeds								х		х	х	
Partners												
CAB			Х					Х		Х	Х	
CNEA			Х					Х				
UBA	Х		Х		Х	х	Х	Х		Х		
UNLP	х		Х	х	х	х	Х	х	Х	Х	Х	
UNMP		х		х								
CBPF	х						х			Х	х	
UERJ	х		Х				Х					
UFRJ	х	х	х		Х					Х	х	
UNESP	×						×					
UNICAMP				х				х	Х			
USP			Х				Х	х	Х			
PUCC	х				Х	х	Х		Х	Х	Х	
UTFSM	х	Х	х		Х	х	х		Х	Х	Х	
BUAP		Х	Х		Х			х	Х			Х
CINVESTAV			Х		Х		Х	х	Х			Х
UGTO									Х	Х	Х	Х
UMSNH									Х			Х
UNAM	х	Х	Х		Х		х	х	х			Х

4.3 Complementarities/synergies between the partners

EPLANET will give the possibility to LA groups who have put forward ideas to accomplish them through collaboration with European partners, where they will have access to equipment and infrastructure which will allow them to realize their ideas.

European groups will gain from the young HEP Latin American community bringing in new and fresh ideas.

Modern HEP requires collaborative efforts in all aspects of the experiments from the conception and construction of the detectors to the analysis of the data and further interpretation of the results. This proposal will encourage and enable such joint efforts.

Examples of these collaborative efforts are given in some detail in the proposal providing evidence of how European and Latin American institutions of EPLANET can successfully collaborate to reach common scientific goals.

5. Transfer of Knowledge

5.1 Quality and mutual benefit of the transfer of knowledge

The transfer of knowledge is based on the exchange of scientists, junior and senior, between participating organizations, with a strong focus on the large experimental facilities of CERN and Pierre Auger Observatory. This exchange will:

- Create the conditions to achieve fundamental scientific discoveries and technological developments in HEP, thanks to the enhancement of the discovery potential of the participating scientists through mutual exchanges of ideas and closer collaboration.
- Allow the Latin American community to have access to the best experimental facilities and enhance relationships with the best European partners. Conversely, they will have the possibility to pass on their special knowledge to the European colleagues.
- Allow European scientists to transfer knowledge by giving lectures and training courses in Latin America.
- Orient towards Europe a flux of intellectual resources, derived from the enormous potentialities of Latin American countries.
- Support the training of scientific personnel of Latin America and encourage the research groups in LA to strength collaborations between them and raise their scientific visibility.
- Improving physics education in Latin American Universities by transferring European educational best practices and creating new educational material, both from the European Universities and from CERN.
- Help LA community to take advantage of the existing technologies to promote industrial innovation in their countries.
- Help to promote the divulgation of the scientific knowledge, in Europe and in Latin America, and to make aware the civil society about the development due to the technology as a direct product of the scientific research.

Universities participating in the project have well established high level academic training programmes. In addition CERN has a wide and well recognized by the HEP community Academic Training and Summer Students programmes with general and specialized lectures in particle physics, in accelerator and detector related technologies and in computing. A large number of seminars and conferences on specialized topics take place every year at CERN and in the Universities participating in the project. Only at CERN more that 200 lectures and seminars are given every year.

The participant institutes in EPLANET will organize **specific workshops** to provide a forum of exchange of ideas and the development of the scientific plans of each individual work package.

We envisage at least one workshop for each work package in the course of the four years of the project. Typical subjects for such workshops are physics beyond the standard model, innovation in computing, microelectronics and hadrontherapy.

We do not expect EPLANET to cover the cost of these workshops although it will facilitate the participation of a few individuals. These Workshops are directed mainly to the scientific community of EPLANET and, more generally, to the participants to the CERN and Auger experiments.

Extended residence in other scientific institutions has proven to be the single most efficient instrument to transfer knowledge in very complex fields such as HEP.

As an example, through only several months of continuous collaboration with a group that has developed new analysis tools, scientists could gain adequate know-how to continue the work in their home institutes.

The LA scientists will take back to their home institutes knowledge and technical expertise which they have acquired in Europe – this will enhance and broaden the knowledge base in Latin America, and probably give a European orientation to their future initiatives. On the European side, the scientific and technical knowledge gained by having access to the Auger Laboratory and by collaborating with colleagues from another scientific culture, will expose them to new ideas and approaches and result in an enriched attitude to science in general.

5.2 Adequacy and role of staff exchanged with respect to the transfer of knowledge

The goals will be different in the different work packages and depending on the seniority of the exchanged scientist. Senior scientists from both sides will transfer their expertise and know-how to junior scientists.

Senior scientists involved in EPLANET are the leading figures in HEP in LA and some of the most important figures in Europe. They can guarantee the excellence of the project from the point of view of the scientific standing.

Junior scientists will participate in world class projects, gaining hands-on expertise and profiting from the training programmes. The level of the junior scientists is guaranteed by the fact of being hired by the most prestigious institutions in their countries.

EPLANET includes some of the world leading figures in HEP and its related technologies, and most of the best Latin American scientists in the field. More details on the specific expertise of the researchers can be found in the proposal.

The mobility of European Professors and senior scientists to Latin America will help LA scientists to develop experimental and analysis tools required in experimental and theoretical particle physics and in HEP technologies. To quote but only a few technologies, we mention: detection systems, particle accelerators, medical imaging, reconstruction algorithms, GRID computing.

6. Implementation

6.1 <u>Capacities (expertise/human resources/facilities/infrastructure) to achieve the objectives of the planned cooperation</u>

CERN is the world's largest particle physics centre and one of Europe's first joint ventures (1954) for research and high-tech activities. The CERN scientific programme is mainly based on the construction and future operation of the Large Hadron Collider and its four major experiments: ALICE, ATLAS, CMS and LHCB. Currently more than 9000 users from over 500 institutes and universities from all over the world, mainly from the Member States, are involved in the research and technology programme of the Laboratory, in physics and on a wide range of applied disciplines. CERN provides adequate facilities and services to host all of them. On-site hostels, User Office, office and lab space, transport, shipping and purchasing is a small sample of the large range of services that CERN offers to the users.

The Pierre Auger Observatory, in Mendoza (Argentina) is the most ambitious project ever undertaken for the study of the ultra high energy cosmic rays (UHECR). There is no known acceleration mechanism to reach such energies. The PAO is a hybrid detector, combining information from ground-based particle detectors and atmospheric fluorescence detectors.

More than 200 physicists from 55 institutions of 15 countries have collaborated in building the Observatory. The number of staff and their stay at the Pierre Auger Observatory is based on well known experience gained during the operation of the Observatory that started to collect data in 2005 and has been completed in 2008.

There are projects to build a similar installation in the Northern Hemisphere.

Adequate technical infrastructure including clean rooms, micro-electronics laboratories, workshops, computing facilities, etc will be made available to the participants in the project by the major host institutions.

Space limitations do not allow a detailed description of each of the other participant institutions. As an overview we can state that all major HEP research institutions of the four LA countries which have signed S&T Agreements, participate in this proposal which, therefore, represents properly the entire community.

This includes large prestigious and world known institutions as shown in the list of Partner institutions (Part A).

Similarly, from the European side, in addition to CERN which is the flagship laboratory in particle physics, all institutes involved can claim both, scientific excellence and consolidated experience in collaborating with LA institutes.

In conclusion, the partners in the different Work Packages have adequate expertise, equipment and infrastructures to cover their commitments in the work packages listed in Table 1.

6.2 <u>Appropriateness of the plans for the overall management of the exchange programme</u>

EPLANET will provide the framework to maximize the level and effectiveness of scientific cooperation between European and Latin American Institutes.

This goal may be achieved by providing:

- access to LA scientists to the largest HEP research facility in Europe (CERN)
- access for European scientists to the largest research infrastructure in Latin America (Pierre Auger Observatory)
- training opportunities in Europe for young researchers from the majority of the larger research institutes in Latin America.
- The opportunity for high level exchanges of senior scientists from LA and EU.

Scientific and administrative coordination

EPLANET will be managed following the very successful model of the HELEN network which involved a similar number of exchanges and institutions, i.e. comparable in size and complexity.

The complexity and size of the project will require that the Coordinator, is assisted by a Deputy Coordinator to handle the overall administration of the project.

The support for detached outgoing and incoming personnel will be provided by the Human Resources Services of each institution. In the case of CERN which receives more that 75% of the detached incoming personnel from Latin America, the support will be handled at the Work Package level and will be coordinated by the CERN Interlocutor. This support will include assistance for the obtaining of Visas, help in the search for accommodation and other administrative tasks.

Figure 1 shows a schematic view of the management organization of EPLANET.

The decisional body is the Executive and Supervisory Board (ESB). The members of the ESB are the Project Coordinator, the Deputy Project Coordinator, the CERN interlocutor, one representative form the Pierre Auger Observatory and one representative per participating country. The ESB is chaired by the Project Coordinator.

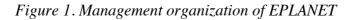
The ESB will meet once per year at the beginning of the year.

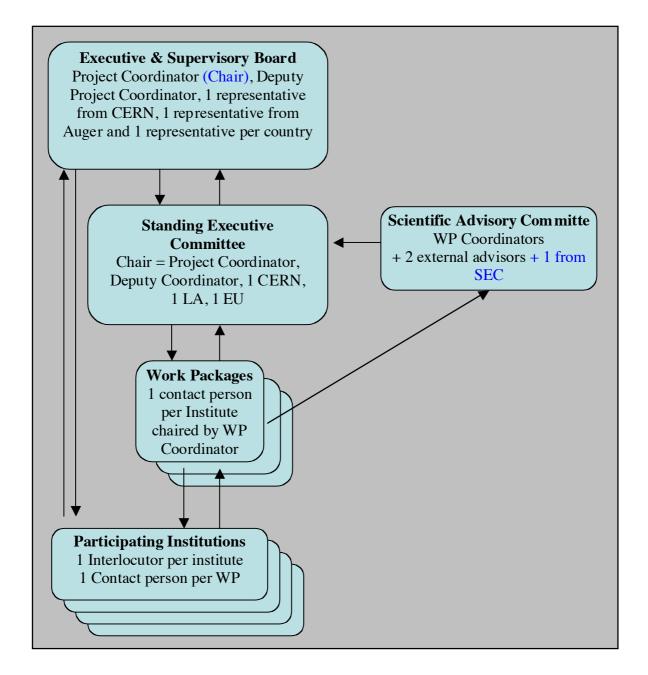
To insure the effectiveness of the exchange programme and the optimal choice of exchanges, the ESB will evaluate every year the development of the work packages and the choice of the specific scientists that would benefit from the exchanges.

Decisions of the ESB are prepared by the Standing Executive Committee (SEC). Ex-Officio members of the SEC are the Project Coordinator, the Deputy Project Coordinator and the Interlocutor from CERN. Four additional members will be elected by the ESB among its members, two representing Latin American countries and two representing European countries. The SEC will meet twice per year. The meetings will take place normally at CERN to minimize costs.

The EPLANET Project Coordinator will propose a Coordinator for each Work Package. These 9 Work Package Coordinators together with two external advisors and one representative of the SEC will form the Scientific Advisory Committee (SAC). The external advisors are nominated by the Project Coordinator.

The SAC will periodically assess the development of the different Work Packages and provide information to the Standing Executive Committee.





Each participating institution in the project will nominate a Local Committee of three members chaired by one of them who will be the Interlocutor of the Institution in EPLANET.

Within each Work package (WP) each participating Institution will also nominate a contact person who will propose the candidates to participate in the WP and will seek for the agreement of the WP Coordinator before forwarding the list of candidates to the Local Committee of the Institution.

The Local Committee has the responsibility of collecting and selecting the various requests of candidates to participate in the Work Packages according to the planned activities and to the quality and adequacy of the candidates. The Local Committees will meet once every six months.

The interlocutors of the institutes participating in EPLANET will report directly to the Project Coordinator.

The Work Package Coordinators will report every year to the Project Coordinator on the development of the research programme including the status of milestones.

At the end of each year, the Project Coordinator prepares

1) a report on the mobility of the year, based on the reports by Interlocutors and detached junior and senior scientists,

- 2) the mobility plan for the next year of junior and senior scientists.
- 3) progress of the Work packages

Most of the participating institutions have been members of the HELEN network and, therefore, have developed extensive cooperation capabilities and mutual understanding.

All members of the management have already played key roles in HELEN, thus acquiring the know-how that will be instrumental to the success of EPLANET.

Financial and logistics management

The Project Coordinator will handle the overall resource allocation.

Institutes will provide adequate support for logistic and financial issues through their corresponding departments of Human Resources and Finances.

Institutes will insure the necessary resources for the displacement of their detached researchers to the corresponding partner institute. They will commit to keep the regular payment of the home salary or grant to the researchers during their detachment abroad. This point will be included in the Consortium and Partnership Agreements to be signed by each participating institution.

A 5% of the overall budget allocation from IRSES will be devoted to administrative support and to the expenses incurred in the preparation of meetings of the management bodies.

The remaining budget allocation from IRSES will be used to pay subsistence to the researcher and to contract adequate social insurance, when required.

7. Impact

7.1 <u>Relevance of the proposed partnership to the area of collaboration and for the European Research Area³</u>

The number of scientists who will be able to start or continue in research and development will be increased by the EPLANET projects, and the quality will also be improved by having access to world-class equipment and infrastructures, through training, and by working with renowned experts. Through working in international teams and taking part in discussions of complementary and sometimes contradictory approaches, the researchers will develop a broader, critical view and judgement, and

³ Towards a European Research Area, 18 January 2000. COM(2000)6

gain international visibility and recognition. They will further benefit from the personal contacts they have established in these international networks.

EPLANET projects are mutli-disciplinary and some of them will involve developments with industry. Individual researchers will thus acquire experience in working and communicating across disciplines and sectors, allowing them to pursue successful careers in different environments.

Many of the international projects in which EPLANET researcher will be involved, such as the LHC and Auger, have very active outreach programmes, and EPLANET participants will be encouraged to take part in these actions. These activities are usually well attended and contribute to improving the image of science, especially among younger people.

EPLANET, by its international nature and knowledge exchange programme, will decrease fragmentation, isolation and compartmentalisation of national research efforts. It will lead to a more coherent and optimal implementation of national research resources and result in closer relations of different organizations. The improved use of resources should encourage investment in research and innovation, particularly on the Latin American side.

The proposed exchange programme is fully in line with the spirit and goals of the European Research Area (ERA) as defined in the EC Communication "The European Research Area: New Perspectives", published in April 2007. EPLANET will contribute in particular to the following axes of the ERA:

Development of world-class infrastructures

The area of collaboration covered by this proposal is high energy physics and some of its associated technologies. Altogether, it covers a very wide spectrum of research and development activities, which are recorded in Table 2.

The Auger experiment and the LHC machine are expected to be forefront world-class HEP facilities in the coming years. They both break new ground - their scientific results are eagerly awaited and will be very important for the field of HEP. Most of the Work Packages (WP 1,2,3,4,5,9) will contribute significantly to these results. Developments in accelerator technology (WP 6) and scientific computing (WP 8) are vital to the future of the field, and the partners working on Work Package 7 will make major contributions to area of cancer treatment using hadron beams. Due to space limitations it is not possible to describe fully all the Work Packages, but they all make significant and important contributions to the field of HEP and associated technologies.

Mobility of researchers

The Auger experiment and the LHC are currently poles of attraction for scientists from all over the world. Trans-national mobility will be boosted, for both people and knowledge, and the introduction of a European dimension to the careers of Latin American colleagues will be very useful for their future realisation.

Opening of the ERA to the world

EPLANET has a strong scientific exchange programme which will be a powerful tool to further promote High Energy Physics in Latin America, and to improve bilateral scientific cooperation between the EU and Latin America. It will expand and continue the successful activities under the HELEN network, aiming to strengthen the academic activities of the LA Universities and research centers and the cooperation in the field of HEP, Astroparticle Physics and related technologies; to consolidate research groups and

to favour the active involvement of young scientists in world-class scientific activity. The international workshops that will be organised under the framework of EPLANET will continue to stir the interest of young scientists in HEP, to stimulate ideas and to motivate international cooperation.

EPLANET should become a major factor in the collaboration between Europe and Latin America, and in strengthening the development of high energy physics and associated technologies on a world scale.

Effective knowledge sharing

The participation in forefront research and development projects, and in the network's training activities, will significantly benefit the careers of the researchers involved in EPLANET, and will contribute to the development of the knowledge-based economy in Europe and Latin America. Research and technology account for a significant fraction of economic growth, and have a strong influence on competitiveness and quality of life. Through the exchange programmes and knowledge sharing activities of the project, the researchers will broaden their scientific and technical skills and, in major centres like CERN, CNRS and INFN, they will have the opportunity to take management and other complementary training courses which will prepare them for longer-term, leadership positions. They will participate in frontier research projects driven by world class laboratories and experts.

7.2 Potential to develop lasting collaboration with the eligible Third Country partners

In high energy physics it is standard practice to form large international collaborations in order to build and operate experiments at a few central accelerator facilities, and to analyse the data recorded by these experiments. Individual R&D and physics research projects carried out at separate institutes scattered around Europe and Latin America would certainly lead to fragmentation, duplication and uncoordinated activities. It is therefore very beneficial to have structured activities between these institutes which bring together and focus their research efforts.

Through this project, researchers, particularly those from LA, will benefit from access to an outstanding range of expertise and infrastructure, and will be part of forefront R&D and research activities on an international level. A substantial fraction of these researches are expected to remain in the HEP. Having profited from the numerous advantages and appreciated the value of such international collaborations, they are likely to use this approach for future activities throughout their careers. Experience over many years in HEP bears this out.

Care will be taken to integrate newcomers into the physics collaborations, and they will be required to attend regular collaboration meetings and present results of their work. Visiting experimental scientists and their groups will be full members of the experimental collaborations, while visiting theoretical physicists will be members of smaller groups in the host institutions. Past experience shows that these aspects also promote long-lasting collaboration between the partners.

All work packages of this proposal concerns long-term projects. For example, LHC is expected to be the forefront HEP facility for the next 20 years, and it is expected that the collaborations formed in this proposal will continue for many years. Beyond the lifetime

of LHC, it would be natural for the partners to continue working together in the framework of future facilities such as the International Linear Collider or neutrino factories. Also for the other projects, the conditions exist for lasting cooperation between the network partners.

We expect that this project will help to consolidate signed Memoranda of Understanding, Cooperation Agreements and Protocols to these agreements between participants and that it will also be the seed for new Cooperation and Collaboration Agreements.

Examples of this potentiality can be seen in the frame of the HELEN network which facilitated the signature of MoU's between LHC experiments and Brazilian and Chilean Institutions and of Cooperation Agreements between CERN and the Governments or funding Agencies of Argentina, Brazil, Chile and Mexico.

8. Ethics

Ethics is central to scientific integrity, honesty and clarity of science. It is considered essential by the *Commission* in the research activities that it funds or carries out itself. This means that in any proposal submitted to the 7th Framework programme, ethics issues must be identified and addressed.

The following special issues should be taken into account:

ETHICS REVIEW AND THE REVIEWERS

Ethics review aims to prevent Community funding being used for research activities that contravene fundamental rights.

- Reviewers are selected on the basis of their expertise.
- Reviewers must first register online on CORDIS.
- Reviewers have a wide range of skills. They include doctors, biologists and clinicians, ethicists, lawyers.
- Gender balance is promoted.
- Reviewers come from the European Union and other countries.

Every proposal gets a report outlining the views of the reviewers. No marks are given, but if the proposal is unclear on ethics issues, clarification may be asked for.

ETHICS REVIEW IS AUTOMATIC IF A PROPOSAL INCLUDES:

- Interventions on human beings;
- The use of human embryonic stem cells (hESC); and/or
- The use of non-human primates.

Ethics Review may be necessary if the proposal is flagged by the scientific expert as raising specific ethics issues.

MAIN ETHICS ISSUES THAT MUST BE ADDRESSED

- Informed consent
- Human embryonic stem cells
- Privacy and data protection
- Use of human biological samples and data
- Research on animals
- Research in developing countries
- Dual use

AREAS EXCLUDED FROM FUNDING

• Research activity aiming at human cloning for reproductive purposes.

• Research activity intended to modify the genetic heritage of human beings which could make such changes heritable (Research related to cancer treatment of the gonads can be financed).

• Research activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

MAJOR CHANGES FROM FP6 TO FP7

The Ethic Review will be carried out on the proposal as it is submitted.

• No additional information will be requested at Ethical Review.

- Drafts of Information Sheet and Consent Form have to be submitted.
- No need to submit copies of legislation.

INFORMED CONSENT

When is it needed?

- When children are involved
- Healthy volunteers
- Human genetic material
- Human biological samples
- Human data collection

WHAT MUST BE IN A CONSENT FORM?

A statement that this is a research project.

- The purpose of the research, the duration, procedures to be used and identification of any experimental procedure.
- A description of the foreseen risks and benefits to be included.
- A statement describing the extent to which confidentiality of records identifying the subject will be maintained.
- A disclosure of any alternative procedures that might be beneficial.
- For research involving more than minimal risk, an explanation as to whether there are any treatments or compensation if injury occurs and if so what they consist of or where further information can be obtained.
- Identity the contact person for answers to questions about the research and research subject's rights, and whom to contact in the event of injury to the subject.
- A statement that participation is voluntary, withdrawal from the research can be undertaken at any time without loss of benefits which the subject is otherwise entitled to.

HOW TO DEAL WITH INFORMED CONSENT IN PRACTICE?

Ensure that:

- it is understood. Explain how you check the critical part of the process;
- it excludes vulnerable persons, prisoners, mentally impaired persons, severelyinjured patients, very young children, but avoid lost opportunities for these persons. The framework should guarantee their participation (notion of surrogate legal/ therapeutic representative);
- you address the fact that people rarely recall what they have agreed upon when signing an informed consent form.

PRIVACY AND DATA PROTECTION

Privacy problems exist wherever uniquely identifiable data relating to a person is collected or stored, in digital form or otherwise. Improper disclosure control can be the root cause for privacy issues.

Data affected by privacy issues

- Health Information
- Financial and Genetic information
- Criminal justice
- Location information
- Data privacy/sharing data while protecting identifiable information

How to address Data protection and Privacy?

- Describe the procedures for informed consent confidentiality.
- Inform consent for duration and limited purposes.
- Code or anonymise banked biomaterial, security for storage and handling and make sure it is lawfully processed.
- Check for accuracy, and security Check for data transferred abroad unprotected.

DUAL USE

Dual use is a term used to refer to technology which can be used for both peaceful and military aims.

DOUBLE STANDARDS

The issues at stake when conducting research in *Third Countries* are linked with applying the same criteria to other cultures. This implies that you take into account the wide disparities in health systems, the burden of disease, the level of literacy and the scientific and ethics infrastructures.

HUMAN EMBRYONIC STEM CELL RESEARCH (HESC)

Each proposal using hESC is assessed by at least two independent ethics reviews: one in the country where the research is carried out and one at the EU level. No system in the world offers a higher guarantee regarding the respect of fundamental ethics principles. When involving the use of hESC in their research project, researchers should take into account and specify:

- if it does not destroy embryos (including to procure stem cells);
- if the partnership has taken into account the legislation, regulations, ethics rules and/or codes of conduct in place in the countries where the research using the hESC will take place, including the procedures for obtaining informed consent;
- the source of the hESC;
- the protection of personal data (genetic data and privacy);
- the nature of financial inducements, if any;
- positive opinion from a Committee constituted by Member States representatives;
- approval of the relevant national or local ethics committee prior to the start of the research activities.

ELEMENTS FOR A GOOD APPROACH

- Foresee Ethics Responsibility at the level of Work-Package Leadership.
- Include a flowchart of the Ethics review process within the partnership.
- Include an appropriate periodic report on ethics.
- Ethics consideration is reflected in the structure of the proposal.
- Include an Ethics Standing Committee or at least a periodic monitoring for ethics.
- Include a Work Package on Ethics (if relevant).
- Specifically include: Insurance of participants, Conflict of interest, Incidental findings.
- The content of the Ethics part of the proposal should reflect that the issue was thought of thoroughly.
- Address possible ethics issues, even if to justify that they are not applicable, give justification.
- Justify the choice of animals, estimate the numbers.
- Take into account data, data transfer, banks, collecting samples, future clinical trials.

RESEARCH ON ANIMALS

• Address the question of animal by explaining your choices of species.

• Make a detailed and convincing explanation for the application of the 3Rs: Reduction, Replacement, Refinement.

- Justify species and give an estimate of numbers of animals you will use.
- Refer humane end points and pain suffering.
- Check for alternatives.

PART C

9. Overall Maximum Community Contribution (Tables A3.1 & A3.2)

Tables A3.1 and A3.2 from the GPFs.

Prefinancing: This amount is intended to provide the *beneficiary* with a float in between periods and it would be agreed during negotiations. As an indication, for projects with one of two reporting periods, the amount of the pre-financing could be between 60-80% of the total Community financial contribution

10. Grant agreement deliverables

A3.′	1:
Budo	ıet

					Buuger
Project Number 1	246806		Project Acronym ²	EPLANET	
		One Form	er Project		
Participant number in this project	Participant short name	Country	Number seconded researchers month	EU contribution / researchers month (€)	Total EU Contribution (€)
1	Roma I	Ital	21	1,800	37,800
2	CNRS	France	160	1,800	288,000
3	INFN	ital ý	216	1,800	388,800
4	LIP	Portugal	6	1,800	10,800
5	CIEMAT	Spain	40	1,800	72,000
6	UAH	Spain	19	1,800	34,200
7	UB	Spain	33	1,800	69,400
8	UCM	Spain	25	1,800	45,000
9	USC	Spain	135	1,800	244,800
10	UV	Spain	58	1,800	104,400
11	CERN	Switzerland	1,054	1,800	1,915,200
12	leeds	United Kingdom	25	1,800	45,000
TOTAL (€)			1,803		3,245,400

Project Nu	mber 1		246806	5			F	roject Acro	nym *	E	PLANET	
						o	ne Form pe	r Project				
Participant number in this	From		To	•		Seconded	Number seconded	EU contribution /	Participant contribution /	Total participant	Total EU Contribution	Total (€)
project	Participant short name	Country	- M	articipant MS/AC or TC)	Countr	researcher 43	researchers month	researchers month (€)	researchers month (€)	contribution (€)		
1	Roma I	ital i /	US	BA	Argentina	Earl∮ Stage Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	US	BA	Argentina	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	US	BA	Argentina	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	U	NLP	Argentina	Earl∮ Stage Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	U	NLP	Argentina	Earl∮ Stage Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	U	NLP	Argentina	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	US	SP	Brazil	Earl∮ Stage Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	US	SP	Brazil	Earl∮ Stage Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	CE	8PF	Brazil	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	CE	8PF	Brazil	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ltal ý	ci	INVESTAV	Mexico	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	ci	INVESTAV	Mexico	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	UE	ERJ	Brazil	Experienced Researcher		1,800	0		0 1,800	
1	Roma I	ital ý	UE	ERJ	Brazil	Experienced Researcher		1,800	0		0 1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
1	Roma I	italý	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
1	Roma I	ltalý	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
1	Roma I	ital ý	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
1	Roma I	ital ý	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
1	Roma I	ital ý	UNAM	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
1	Roma I	ital ý	UNAM	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
1	Roma I	ital ý	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Country	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CBPF	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CBPF	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	2	1,800	0	0	3,600	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
2	CNRS	France	CBPF	Brazil	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
2	CNRS	France	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	CINVESTAV	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	Italý	CINVESTAV	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltalý	CINVESTAV	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	Italý	CINVESTAV	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	italý	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	Italý	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	italý	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	UNAM	Mexico	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	italý	UNAM	Mexico	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	Italý	UNAM	Mexico	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital	UNAM	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
3	INFN	italý	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ital∮	UFRJ	Brazil	Experienced Researcher	3	1,800	0	0	5,400	
3	INFN	ital ý	UFRJ	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ltalý	UFRJ	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ltal∳	UNLP	Argentina	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ltal ý	UNLP	Argentina	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ltal	UNLP	Argentina	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital ý	UNLP	Argentina	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital ý	UNLP	Argentina	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital∳	UNLP	Argentina	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital∳	UNLP	Argentina	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ital∮	UNLP	Argentina	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltal∮	UNLP	Argentina	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	italý	UNLP	Argentina	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
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Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
3	INFN	ltalý	UNLP	Argentina	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
3	INFN	ltal∮	UNLP	Argentina	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ital∳	UNLP	Argentina	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltal∳	UNLP	Argentina	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltał∳	UNLP	Argentina	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltał∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ltal∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ltal∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ltal∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital ý	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital∳	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital ý	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	ital ý	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
3	INFN	italý	UNICAMP	Brazil	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher ⁴³	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
3	INFN	italý	UNICAMP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	italý	UNICAMP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	UNICAMP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltal	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	PUCC	Chile	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	italý	PUCC	Chile	Earl∮ Stage Researcher	3	1,800	0	0	6,400	
3	INFN	italý	PUCC	Chile	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltalý	PUCC	Chile	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	italý	PUCC	Chile	Earl∮ Stage Researcher	3	1,800	0	0	6,400	
3	INFN	ltal	PUCC	Chile	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltal∮	PUCC	Chile	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
3	INFN	ltal∳	PUCC	Chile	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
3	INFN	ital∳	PUCC	Chile	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
3	INFN	italý	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
3	INFN	ltał	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltałý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ital ý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltał∮	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltał∳	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
3	INFN	ltałý	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	ltalý	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
3	INFN	Italý	UNLP	Argentina	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
3	INFN	ltał	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
4	LIP	Portugal	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
4	LIP	Portugal	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU anatoliu fan (Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr#	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
4	LIP	Portugal	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
4	LIP	Portugal	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
4	LIP	Portugal	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
4	LIP	Portugal	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CBPF	Brazil	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
5	CIEMAT	Spain	UNICAMP	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
5	CIEMAT	Spain	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	3	1,800	0	0	5,400	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
5	CIEMAT	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
5	UAH	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU contribution /	Participant contribution /	Total participant	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	researchers month	contribution / researchers month (€)	researchers month (€)	participant contribution (€)	(€)	
6	UAH	Spain	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	UNAM	Mexico	Experienced Researcher	2	1,800	0	0	3,600	
6	UAH	Spain	UNAM	Mexico	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	UNAM	Mexico	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
6	UAH	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
6	UAH	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
7	UB	Spain	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total participant	Total EU Contribution	Total (€)
number in this project	Participant short name	Country	Participant (MS/AC or ETC)	Country	researcher ⁴⁰	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
7	UB	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
7	UB	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	ИСМ	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr¶	Participant (MS/AC or ETC)	Country	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
8	ИСМ	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	исм	Spain	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	исм	Spain	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	UCM	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
8	ОСМ	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	USP	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	USP	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	USP	Brazil	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
9	USC	Spain	UNAM	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
9	usc	Spain	UNAM	Mexico	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
9	USC	Spain	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UBA	Argentina	Experienced Researcher	3	1,800	0	0	6,400	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
9	USC	Spain	UBA	Argentina	Experienced Researcher	3	1,800	0	0	5,400	
9	USC	Spain	UBA	Argentina	Experienced Researcher	3	1,800	0	0	5,400	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
9	usc	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	USP	Brazil	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	UBA	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	UBA	Argentina	Experienced Researcher	3	1,800	0	0	5,400	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
9	USC	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
9	USC	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
9	USC	Spain	CNEA	Argentina	Experienced Researcher	3	1,800	0	0	5,400	
9	usc	Spain	USP	Brazil	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
9	USC	Spain	UNLP	Argentina	Experienced Researcher	2	1,800	0	0	3,600	
9	USC	Spain	USP	Brazil	Experienced Researcher	б	1,800	0	0	9,000	
9	USC	Spain	USP	Brazil	Earl∮ Stage Researcher	6	1,800	0	0	9,000	
9	USC	Spain	USP	Brazil	Experienced Researcher	δ	1,800	0	0	9,000	
9	USC	Spain	USP	Brazil	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
9	usc	Spain	UBA	Argentina	Experienced Researcher	3	1,800	0	0	5,400	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr#	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CINVESTAV	Mexico	Earl∮ Stage Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
10	uv	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
10	UV	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	USP	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	USP	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	USP	Brazil	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
10	UV	Spain	USP	Brazil	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
10	UV	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

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Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
10	UV	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
10	UV	Spain	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
10	uv	Spain	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
10	uv	Spain	CINVESTAV	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UBA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
umber in this roject	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
1	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
1	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
1	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
1	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 40	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	BUAP	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
umber in this roject	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
1	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
1	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
1	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	PUCC	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CNEA	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNMDP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNMDP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNMDP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNMDP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNICAMP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CINVESTAV	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UERJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	USP	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UTFSM	Chile	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	CBPF	Brazil	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UGTO	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
11	CERN	Switzerland	UFRJ	Brazil	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
umber in this roject	Participant short name	Countr#	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
12	leeds	United Kingdom	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNAM	Mexico	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Experienced Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
12	leeds	United Kingdom	UNLP	Argentina	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr¶	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ital ý	Earl∮ Stage Researcher	6	1,800	0	0	9,000	

Participant number in this	From		То		Seconded	Number	EU contribution /	Participant contribution /	Total participant	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	contribution (€)	(€)	
13	CNEA	Argentina	INFN	ital ý	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
13	CNEA	Argentina	INFN	ital ý	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	italý	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
13	CNEA	Argentina	INFN	ltalý	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltal∮	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	INFN	ltalý	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	UAH	Spain	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	UAH	Spain	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	USC	Spain	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	usc	Spain	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Country	researcher 40	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
13	CNEA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	CNRS	France	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	CNRS	France	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	UB	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	UB	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	UB	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	UB	Spain	Experienced Researcher	1	1,800	0	0	1,800	
14	UBA	Argentina	USC	Spain	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
14	UBA	Argentina	USC	Spain	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
14	UBA	Argentina	USC	Spain	Earl∮ Stage Researcher	б	1,800	0	0	9,000	
14	UBA	Argentina	USC	Spain	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	9,000	

Participant number in this	From		То		Seconded	Number	EU	Participant contribution /	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
14	UBA	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
14	UBA	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	CNRS	France	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	CNRS	France	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	CNRS	France	Experienced Researcher	2	1,800	0	0	3,600	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Country	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
15	UNLP	Argentina	INFN	ital ý	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	INFN	ital ý	Experienced Researcher	2	1,800	0	0	3,600	
16	UNLP	Argentina	INFN	ital ý	Experienced Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	INFN	ital ý	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	UB	Spain	Experienced Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UB	Spain	Experienced Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UB	Spain	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UB	Spain	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	UB	Spain	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UB	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	ИСМ	Spain	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	ИСМ	Spain	Experienced Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UCM	Spain	Earl∮ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	UCM	Spain	Experienced Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	USC	Spain	Earl∮ Stage Researcher	3	1,800	0	0	5,400	
15	UNLP	Argentina	USC	Spain	Experienced Researcher	3	1,800	0	0	5,400	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
16	UNLP	Argentina	USC	Spain	Experienced Researcher	3	1,800	0	0	6,400	
15	UNLP	Argentina	USC	Spain	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
16	UNLP	Argentina	UV	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	UV	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	UV	Spain	Experienced Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
15	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
16	UNLP	Argentina	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	9,000	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr#	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
16	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
16	UNLP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
16	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
16	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
16	UNLP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
15	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
16	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
15	UNLP	Argentina	leeds	United Kingdom	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
16	UNMDP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	10,800	
16	UNMDP	Argentina	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	10,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
16	UNMDP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	10,800	
16	UNMDP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	10,800	
16	UNMDP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	10,800	
16	UNMDP	Argentina	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	10,800	
16	UNMDP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
16	UNMDP	Argentina	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
16	UNMDP	Argentina	CERN	Switzerland	Eari∳ Stage Researcher	2	1,800	0	0	3,600	
16	UNMDP	Argentina	CERN	Switzerland	Eari∳ Stage Researcher	2	1,800	0	0	3,600	
17	CBPF	Brazil	CNRS	France	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CNRS	France	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CNRS	France	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
17	CBPF	Brazil	CNRS	France	Eari∳ Stage Researcher	3	1,800	0	0	5,400	
17	CBPF	Brazil	CNRS	France	Experienced Researcher	3	1,800	0	0	5,400	
17	CBPF	Brazil	CNRS	France	Experienced Researcher	3	1,800	0	0	5,400	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Country	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
17	CBPF	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	9,000	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
17	CBPF	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
17	CBPF	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
17	CBPF	Brazil	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
17	CBPF	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	

Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	

Participant number in this	From		То		Seconded	Number seconded	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
18	UERJ	Brazil	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
19	UFRJ	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	

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Participant	From		To		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
20	UNESP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
21	UNICAMP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
21	UNICAMP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
21	UNICAMP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
21	UNICAMP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
21	UNICAMP	Brazil	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Eari∳ Stage Researcher	б	1,800	0	0	9,000	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		To		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher ⁴⁰	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
22	USP	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
22	USP	Brazil	CERN	Switzerland	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
22	USP	Brazil	CERN	Switzerland	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
22	USP	Brazil	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
23	PUCC	Chile	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
23	PUCC	Chile	CNRS	France	Experienced Researcher	1	1,800	0	0	1,800	
23	PUCC	Chile	UB	Spain	Experienced Researcher	2	1,800	0	0	3,600	
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Participant number in this	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
23	PUCC	Chile	UB	Spain	Experienced Researcher	1	1,800	0	0	1,800	
23	PUCC	Chile	UB	Spain	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
23	PUCC	Chile	UB	Spain	Experienced Researcher	1	1,800	0	0	1,800	
23	PUCC	Chile	uv	Spain	Experienced Researcher	2	1,800	0	0	3,600	
23	PUCC	Chile	uv	Spain	Experienced Researcher	2	1,800	0	0	3,600	
23	PUCC	Chile	uv	Spain	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	9,000	

Participant	From		To		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
23	PUCC	Chile	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
23	PUCC	Chile	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
24	UTFSM	Chile	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Country	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
24	UTFSM	Chile	CERN	Switzerland	Earl∮ Stage Researcher	4	1,800	0	0	7,200	
24	UTFSM	Chile	CERN	Switzerland	Earl∳ Stage Researcher	4	1,800	0	0	7,200	
25	BUAP	Mexico	CERN	Switzerland	Earl∮ Stage Researcher	δ	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
26	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∮ Stage Researcher	6	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
26	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher ⁴³	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
25	BUAP	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
26	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
25	BUAP	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
26	CINVESTAV	Mexico	INFN	ital ý	Experienced Researcher	б	1,800	0	0	9,000	
26	CINVESTAV	Mexico	INFN	ital ý	Experienced Researcher	δ	1,800	0	0	9,000	
26	CINVESTAV	Mexico	INFN	ital ý	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
26	CINVESTAV	Mexico	INFN	ital ý	Experienced Researcher	б	1,800	0	0	9,000	
26	CINVESTAV	Mexico	INFN	ital ý	Experienced Researcher	6	1,800	0	0	10,800	
26	CINVESTAV	Mexico	CIEMAT	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CIEMAT	Spain	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CIEMAT	Spain	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CIEMAT	Spain	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	USC	Spain	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
26	CINVESTAV	Mexico	uv	Spain	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	uv	Spain	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	uv	Spain	Experienced Researcher	1	1,800	0	0	1,800	

Participant number in this	From		То		Seconded	Number	EU contribution /	Participant contribution /	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 49	seconded researchers month	contribution / researchers month (€)	researchers month (€)	participant contribution (€)	(€)	
26	CINVESTAV	Mexico	uv	Spain	Experienced Researcher	2	1,800	0	0	3,600	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	5	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	5	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	2	1,800	0	0	3,600	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	4	1,800	0	0	7,200	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
26	CINVESTAV	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
27	UGTO	Mexico	INFN	ital ý	Experienced Researcher	2	1,800	0	0	3,600	
27	UGTO	Mexico	INFN	ital ý	Experienced Researcher	2	1,800	0	0	3,600	
27	UGTO	Mexico	INFN	ital∮	Experienced Researcher	2	1,800	0	0	3,600	
27	UGTO	Mexico	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
27	UGTO	Mexico	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	6,400	
27	UGTO	Mexico	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
27	UGTO	Mexico	CERN	Switzerland	Experienced Researcher	3	1,800	0	0	5,400	
27	UGTO	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
27	UGTO	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
27	UGTO	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
27	UGTO	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
27	UGTO	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
27	UGTO	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
28	UMSNH	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
28	UMSNH	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
28	UMSNH	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
28	UMSNH	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
28	UMSNH	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
28	UMSNH	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
28	UMSNH	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
28	UMSNH	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
29	UNAM	Mexico	CNRS	France	Earl∳ Stage Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	CNRS	France	Experienced Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	CNRS	France	Experienced Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	INFN	ital∮	Experienced Researcher	3	1,800	0	0	5,400	
29	UNAM	Mexico	INFN	ital∮	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
29	UNAM	Mexico	INFN	ital∮	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
29	UNAM	Mexico	INFN	ital ý	Earl∳ Stage Researcher	3	1,800	0	0	6,400	
29	UNAM	Mexico	INFN	ital∮	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	INFN	ital∮	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	CIEMAT	Spain	Experienced Researcher	6	1,800	0	0	9,000	

Participant number in this	From		То		Seconded	Number seconded	EU	Participant	Total	Total EU Contribution	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Country	researcher ⁴³	researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	(€)	
29	UNAM	Mexico	CIEMAT	Spain	Earl∮ Stage Researcher	6	1,800	0	0	9,000	
29	UNAM	Mexico	иан	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	ИАН	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	ив	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	ИСМ	Spain	Experienced Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	ИСМ	Spain	Earl∮ Stage Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	USC	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	USC	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	USC	Spain	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	uv	Spain	Experienced Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	UV	Spain	Experienced Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	6	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	6	1,800	0	0	9,000	

Participant	From		То		Seconded	Number	EU	Participant	Total	Total EU	Total (€)
number in this project	Participant short name	Countr	Participant (MS/AC or ETC)	Countr	researcher 43	seconded researchers month	contribution / researchers month (€)	contribution / researchers month (€)	participant contribution (€)	Contribution (€)	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	б	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	3	1,800	0	0	5,400	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	δ	1,800	0	0	9,000	
29	UNAM	Mexico	CERN	Switzerland	Experienced Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	CERN	Switzerland	Earl∳ Stage Researcher	1	1,800	0	0	1,800	
29	UNAM	Mexico	leeds	United Kingdom	Experienced Researcher	2	1,800	0	0	3,600	
29	UNAM	Mexico	leeds	United Kingdom	Experienced Researcher	2	1,800	0	0	3,600	
TOTAL (€)						1,803				3,245,400	3,245,40

A5: Reporting Periods

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246806	Project acronym ²	EPLANET						
One Form per Project								
		246806 Project acronym ² One Form per Project						

Reporting period	From month	To month	Total estimated eligible cost	Total requested EU contribution
1	1	24	0.00	1,622,700.00
2	25	48	0.00	1,622,700.00
	1	48	0.00	3,245,400.00