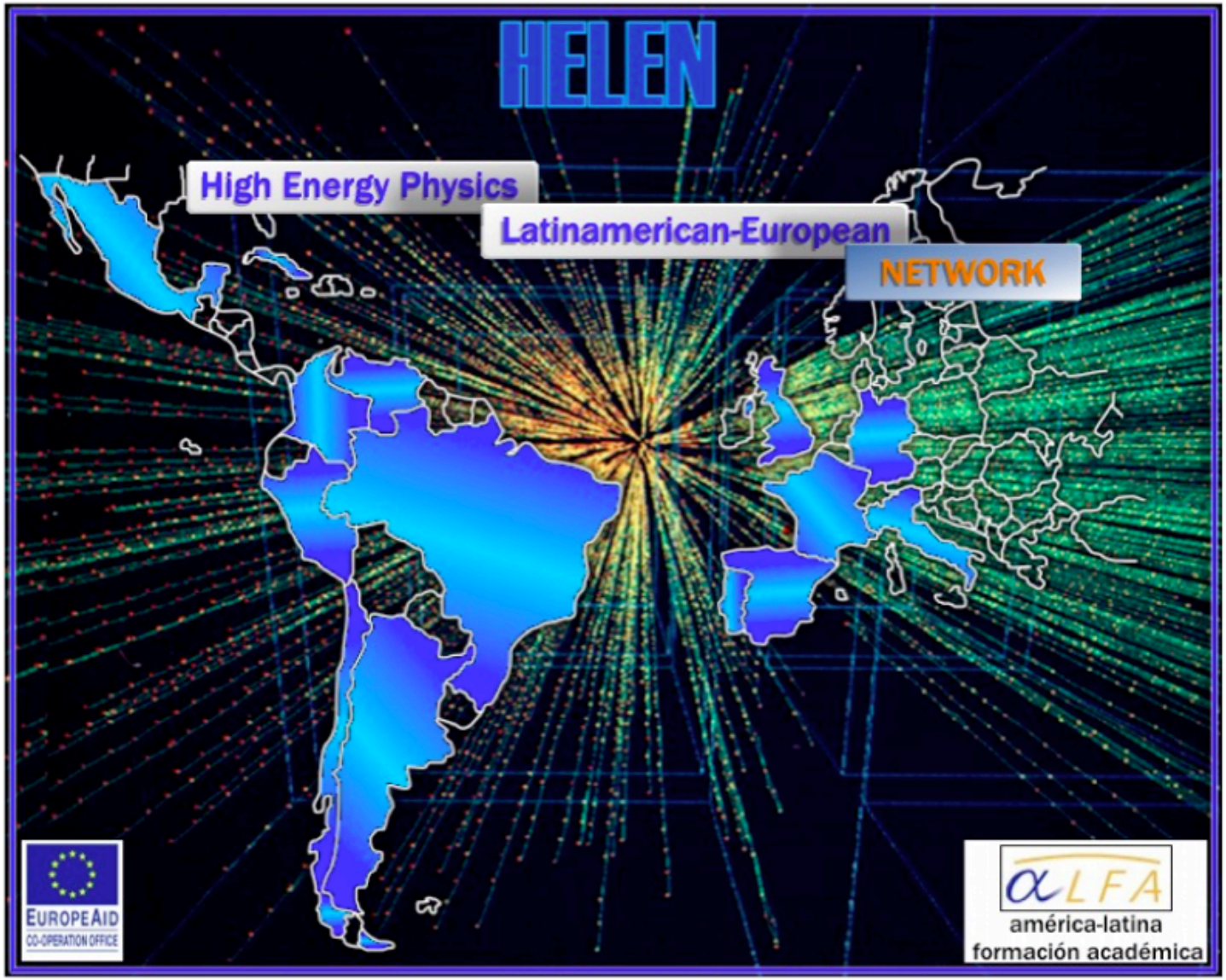
HELEN's Logo

Program started on August 1st, 2005



1. Objectives

Academic Co-operation Programme between European Union and Latin America

HELEN

High Energy Physics LatinAmerican-European Network

Objectives

1. To train young generations of physicists in **High Energy Physics**, in which Europe is world leader, thereby promoting fundamental physics in Latin American countries and contributing to the modernization of physics education there.
2. **CERN, DESY** and **Gran Sasso** facilities, in particular the **Large Hadron Collider** (LHC), **HERA** and their experiments, as well as the **Auger Experiment** in Argentina are fundamental tools for an advanced training programme.
3. To facilitate access of Latin American countries to the technological benefits in the accelerator, detector and information technology domains (**GRID** as an example).
4. To strengthen the integration of the European and Latin American Physics communities.

2. Training Program

Training Types

Complementary training (CT): Mobility of undergraduate students of the two final years of the University courses
Advanced training (AT): Doctorate, Master degrees or post-doctoral vocational specialisation courses
Short-term training (STT): as part of post-graduate studies
Researchers training (RT): Specialised scientific visits for researchers

Academic Background of Grant-Holders

Complementary Training: Members of an Undergraduate Program in Physics or Engineering;
Advanced Training: Members of a Ph.D. Program in Physics or Engineering holding a Bachelor Degree with thesis work in Particle Physics or related Technologies;
Short Term Training: Same as AT
Research Training : Ph.D. diploma in Particle Physics (Experiment or Theory).

Requirements for Grant-Holders

Being a National of: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay and Venezuela, or from one of the 25 Members of the European Union.

Being a registered student or an associated researcher of one of the HELEN Institutions (see Website).

Working Knowledge of English

Applications

The Application Form can be downloaded from our Website and sent by e-mail to the Interlocutor of the Applicant's Institution (adress on the Webpage) **together with**:

Curriculum Vitae (maximum one page) and list of publications

The proposed workprogramme to be performed in the Host Institution (maximum one page)

For Undergraduate or Graduate students: letter of the Applicant's Advisor approving the Workprogram as part of his/her training

Copy of the Applicant's passport (scanned, pdf file)

Names of one/two Referees (Referees should send their recommendation letters directly to the Interlocutor).

Selection Process

Applications will be examined by a Local Committee in each Institution

An applicant for a Grant cannot be in the Local Committee

Grants will be attributed by a Central Committee

Names of Grant Holders will be published on the HELEN's Website

We aim at completing the selection process by November 2005.

Financial Support

Grants are financed as a lump fixed amount of 1.500 EURO/month.

Travel of the grant-holder, from the institution of origin to the host institution (economy class fare) is financed to a maximum amount of:

Intercontinental travel LA/EU: 1.500 EURO

Intercontinental travel EU/LA: 1.500 EURO

Continental travel LA/LA: 1.000 EURO

Continental travel EU/EU: 600 EURO

Description of the Training Programme

a. The Project provides advanced training to young physicists by embedding them in research groups at the forefront of research in High Energy Physics (HEP), in the preparation of detectors, hardware / software analysis tools for LHC, DESY, CNGS or Auger experiments, or in Particle Theory. All Institutions that will receive Grant-Holders have long-established programs of seminars and lectures.
b. Technology Transfer:
   - Technology transfer from HEP is the object of specific training at CERN and in LA by CERN professors;
   - A HEP Technology Data Base will be created and disseminated to Funding Agencies and Industrial Unions
c. Outreach:
   - Participation of graduate students to the CERN High School Teachers Programme
   - Training of the same students by the Outreach unit at CERN.

Visits of Professors

Professors/tutors mobility along the network will allow them to give seminars or short lecture series, to:

a. Enhance training;
b. Start new, collaborative, EU –LA and LA-LA research;
c. Oversee research internship of the grant-holders, which is the principal form of training in the Project.

Professors/tutors submit to the Network Coordinator a brief report of their travel.

Objectives of the Training Program

The main objective of the Project is to create a network for the training of personnel both in European and other Latin-American Institutes/Universities.

Technology Transfer: we propose (1) to diffuse in LA the methods adopted at CERN and (2) to create a HEP Technology Data Base made available to the Funding Agencies for Basic and Applied research and to the Industrial Unions in LA, to promote further R&D.

Outreach: training of some post doctoral students to the task of disseminating scientific culture to High School Teachers, by making them participating in the annual CERN program for High School Teachers.

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

ADVERTISING HELEN GRANTS

Applications for the Grants of the first year Deadline: October 15, 2005

Milestones

Feb. 2005:	Programme approved by Eu Commission
April 05:	Website established
July 28/05:	Contract signed between EU and Univ. La Sapienza
Summer 05:	Local Committees established
Sept. 15/05:	Fellowships advertised on the Web
October 05:	Article about HELEN on CERN Courier
Oct. 15/05:	Deadline for applications 1st Call
Nov. 2/05:	1st Call approved
Apr. 30/06:	2nd Call approved

>6200 visits to HELEN site

3. Trainees at CERN

CERN COURIER

IoP Magazines

- www.iop.org
- Site Overview
- Latest issue
- Special Issues
- CNL
- Archive
- Buyer's Guide
- Subscribe
- Jobs Watch
- Advertising
- Feedback
- Contacts
- Resources
- Search

This Issue | Back Issues | Editorial Staff

Faces and Places

Faces and Places (page 5)

HELEN brings Latin Americans to CERN

The training programme supported by the High Energy Physics Latin American- European Network (HELEN) is in full swing. For 2006, the programme has assigned about 70 fellowships to be spent at CERN by Latin American students and young physicists. The fellowships are centred on the experiments at the Large Hadron Collider (LHC), theory, the DataGRID and technology transfer. Other fellowships are to be spent at European and Latin American universities, bringing the total for the first year of the programme to more than 100 fellowships, with an average duration of three months.

Now a small but active HELEN community is building up at CERN, and has established a HELEN club to allow the exchange of views and to help newcomers in the complex CERN environment. Jose Salicio Diez of the Physics Department coordinates HELEN at CERN.

Latin American students

Latin American students who have arrived at CERN to take up fellowships during the first months of 2006 relax in front of the LHC collaboration buildings, together with the deputy coordinator of HELEN, Veronica Riquer (centre), from Rome University and INFN.

4. HELEN fellowships in the first year

Grants advertised on the Web, with description of job profile
A poster is diffused in local units
Local Committees propose an ordered list of candidates
The Standing Executive Committee acts as Central Committee and assigns the Grants
Grant Holders are published on the Web

- first call approved in Rio, Nov. 2, 2005;
-trainees appeared in Europe in Jan. 2006
-second call approved in April 2006

1st year fellowships:
-LA to EU: 114 (392 months)
-EU to LA: 25 (34)
-LA to LA: 9 (13)

total 148 (439 months)

Nominal Budget 759 + 88.5+ 28.5 = =876.0 kE

BRAZIL
Grants for the Academic Year 2005-2006

CENTRO BRASILEIRO DE PESQUISAS FÍSICAS - CBPF
RIO DE JANEIRO, RJ

Local Committee:
Dr. João Carlos Costa dos Anjos (Chair)
Dr. Gilvan Augusto Alves
Dr. Ronald Cintra Shellard

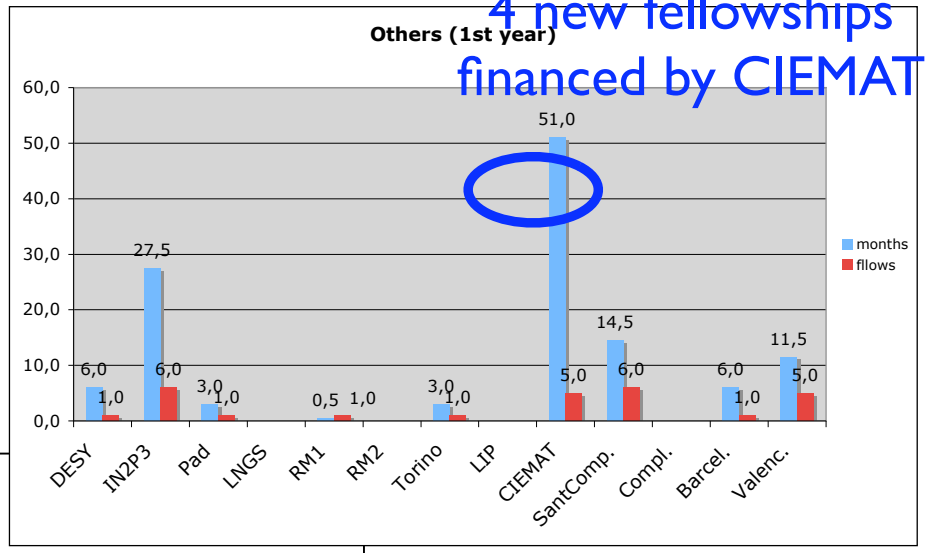
Latin America to Europe

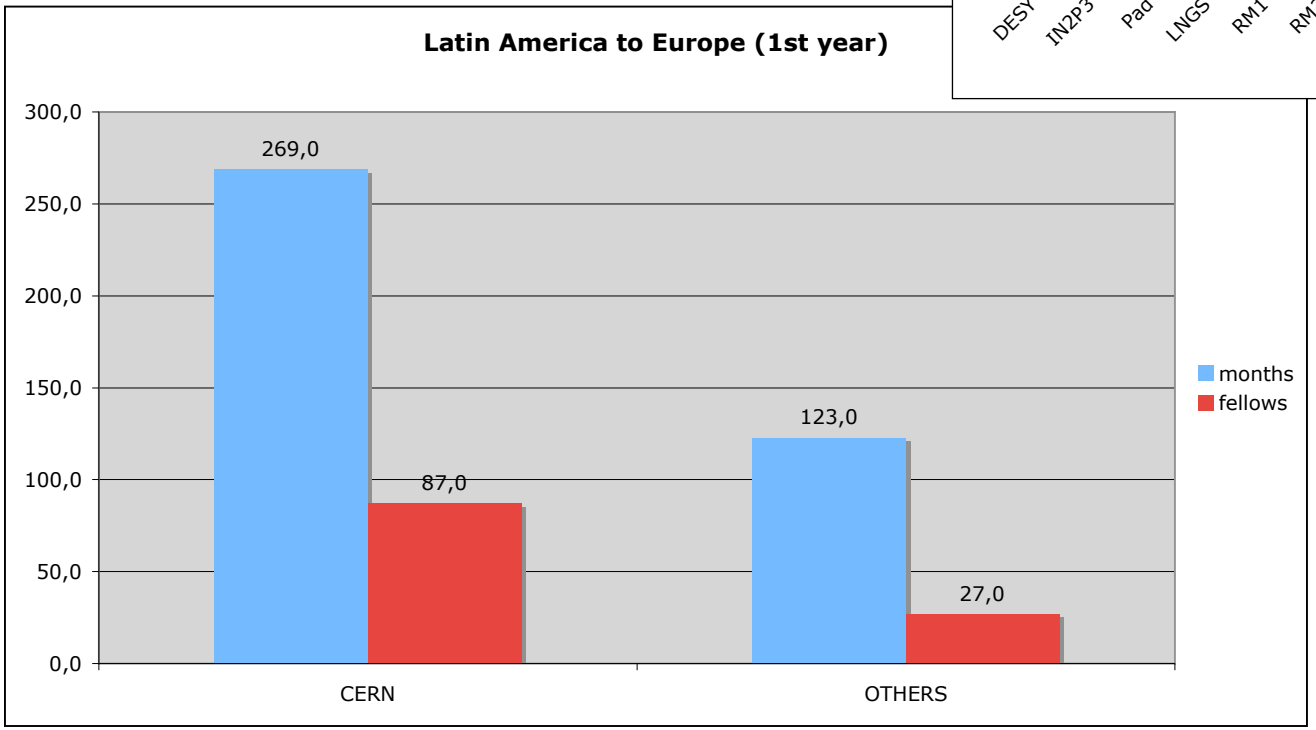
Grant	Type	Work Program	Months	Host Institution Country
1.	AT	LHC: Post-doc to work in the development of data analysis and communication software based on GRID technology for experiments LHC-b and CMS.	6	CERN France/Switzerland
2.	STT	LHC-b. Post-graduate student: Monte Carlo generation for b-physics.	1	CERN France/Switzerland
3.	STT	LHC-b. Post-graduate student: Charm trigger strategies for LHC-b.	1	CERN France/Switzerland
4.	STT	LHC-b. Post-graduate student: muon system: chambers test and online monitoring.	1	CERN France/Switzerland
5.	STT	LHC: Post-graduate student: Training in instrumentation: installation and operation of a LHC detector, data analysis or GRID technology.	1	CERN France/Switzerland
6.	RT	CMS: GRID architecture.	1	CERN France/Switzerland

Destinations of Grant Holders

Project - 3 years:
322
1002

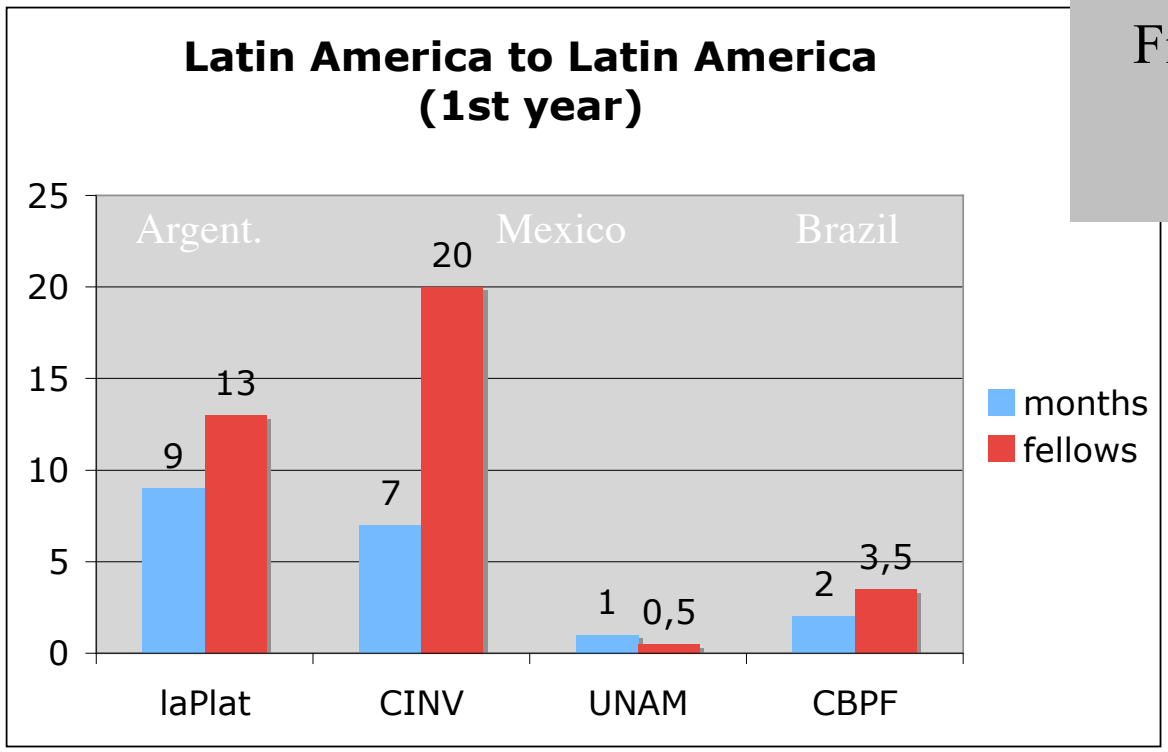
4 new fellowships financed by CIEMAT





Real Data
First year:
114
392

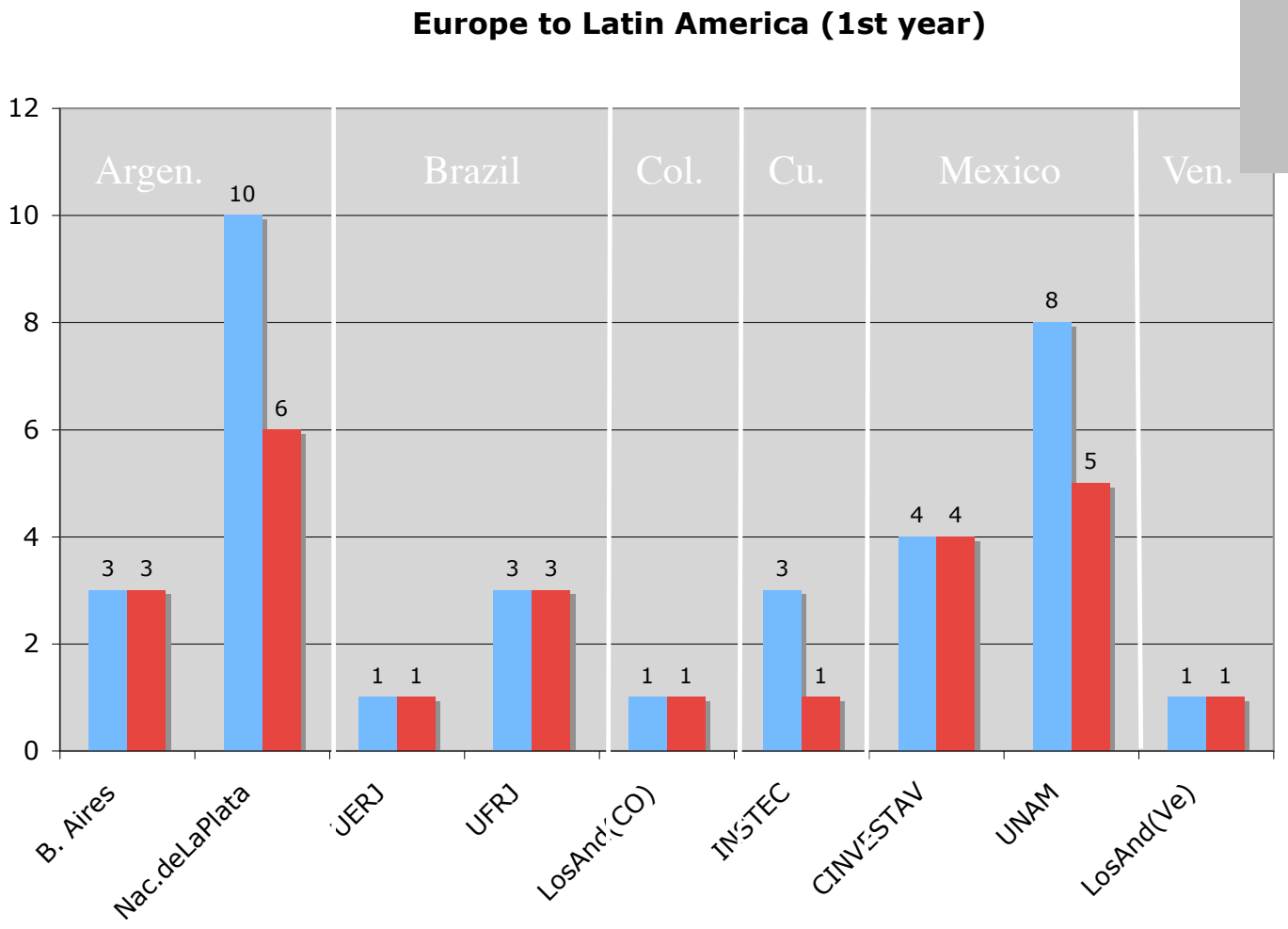
Destinations of Grant Holders



Real Data
First year:
19
37

AUGER:
9
13

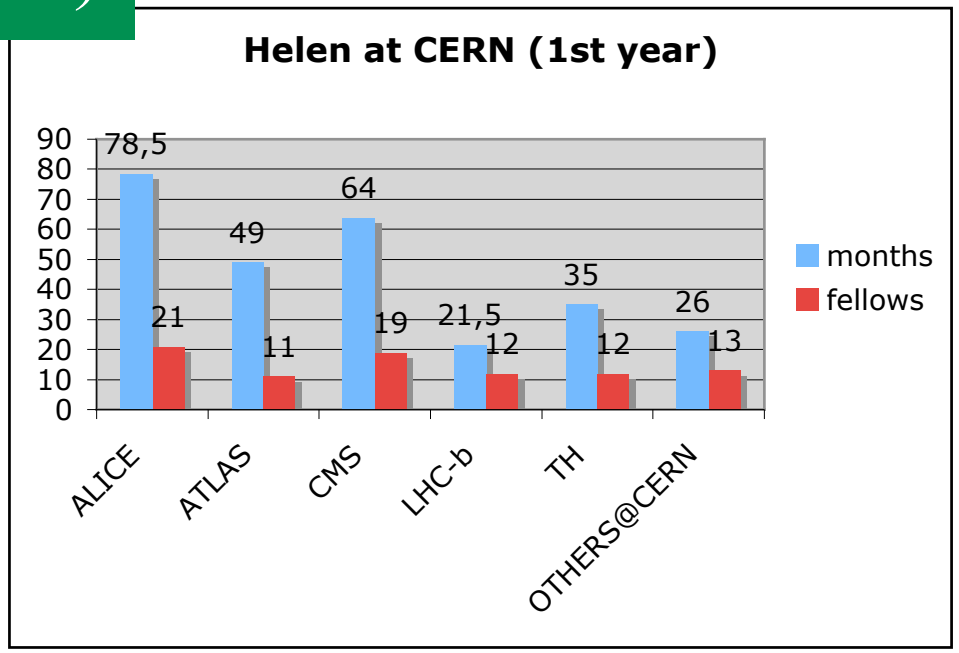
Destinations of Grant Holders



Real Data
First year:
25
34

AUGER:
7
11

Helen at CERN (1st year)



- 87 contracts, 269 months;
- 36 fellows appeared thus far;
- relations to experimental collaborations seem to be good;
- communications with TH less good !

Main emphasis is in LHC, however...
AUGER: 16 (24 months), about 11% of total number of Grants

Arrived until now...38 fellows

CMS (Kirsti Aspola)

1. Luis Manuel PODESTA LERMA
2. Camilo Andres CARRILLO MONTOYA
3. Daniel MEIRELLES MARTINHO
4. Antonio VILELA PEREIRA
5. Diogo Raphael DA SILVA DI CALAFIORI
6. Andre SZNAJDER
7. Vitor OGURI
8. Moacyr HENRIQUE GOMES E SOUZA
9. Dilson DE JESUS DAMIAO
10. Sheila Mara SILVA DO AMARAL
11. Diogo BUARQUE FRANZOSI
12. Eduardo DE MORAES GREGORES

ATLAS (Connie Potter)

13. Andre ASEVEDO NEPOMUCENO
14. Clemencia MORA HERRERA
15. Alam Ismael TORO SALAS

ALICE (Michelle Sarah Connor)

16. Guillermo TEJEDA MUNOZ
17. Ildefonso LEON MONZON
18. Arturo FERNANDEZ TELLEZ
19. Carlos PEREZ LARA
20. Marcelo GAMEIRO MUNHOZ
21. Mario Ivan MARTINEZ HERNANDEZ
22. Rafael DIAZ VALDES
23. Pedro Luis Manuel PODESTA LERMA
24. Sergio ROMAN LOPEZ
25. Roberto NORIEGA PAPAQUI
26. Ismael CORTES MALDONADO

LHC-b (Nathalie Grub)

27. Herman PESSOA LIMA JUNIOR
28. Gabriel GUERRER
29. Augusto Antonio ALVES JUNIOR

Geant4 (Nathalie Knoors)

30. Sandro FONSECA DE SOUZA

TH (Nanie Perrin)

31. Boris Alejandro PANES SAAVEDRA
32. Juan Carlos HELO HERRERA
33. Yeinzon RODRIGUEZ GARCIA
34. Lorenzo DIAZ CRUZ

Others (Catharine Zimmermann)

35. Sebastian Oscar MAESTRI
36. Daniel DE MIRANDA SILVEIRA
37. Claudio LENZ CESAR
38. Jorge Luis MACHADO DO AMARAL

and many thanks to:
Kirsti,
Connie
Michelle Sarah
Nathalie G.
Nathalie K.
Nanie
Catharine

5. Budget (kE)

Budget:

LA Inst. co-finance 15%
EU Inst. co-finance 45%
CERN 140 kE/y (mostly its own trips)

	LA/EU	*EU/LA*	*LA/LA*	
Fellows	*759*	*88.5 (21)*	*28.5*	*= 876.0*
Profs	*36.2*	*151.7 (67)*	*5.5*	*= 193.4*
			tot.	*=1069.4*

Budget 1st Year

N° of Units	Unit cost (*)	TOTAL
0,00	600,00	0,00
75,00	500,00	37.500,00

N° of Units	Unit cost (*)	TOTAL
111,00	1.500,00	166.500,00
34,00	1.500,00	51.000,00
25,00	1.000,00	25.000,00
4,00	600,00	2.400,00
100,50	1.500,00	150.750,00
347,00	1.500,00	520.500,00
0,00	1.000,00	0,00
14,00	1.500,00	21.000,00
62,00	1.500,00	93.000,00
11,00	1.000,00	11.000,00
19,00	600,00	11.400,00
569,00	175,00	99.575,00
242,00	150,00	36.300,00
Total A - Actions		**1.225.925,00**

Total 1st Year = F + G	**1.295.766,00**

Total Network 1st Year	323.941,50
Total EC 1st Year (max. 75% of 1st Year)	971.824,50 75,00%
Total Others 1st Year	
Total 1st Year	**1.295.766,00**

Money (kE)

Very preliminary, Financial statement requested in 3 months

Transferred to institutes (1st install):	128
students at CERN up to now:	134
Insurance @CERN	27
Meetings in Rio	27
Others (adm. install.etc.)	20
spent by CERN	~ 60

tot about 400

EU first inst.: 770, we need to spend >500 within July, to ask for a second istallation

Visit of professors: info requested to Interlocutors, unsuccessfully thus far.

6. SAC met on June 19-20

PROJECT HELEN
(HIGH ENERGY PHYSICS LATINAMERICAN EUROPEAN NETWORK)

First Meeting of the:
SCIENTIFIC ADVISORY COMMITTEE
CERN 19-20 June, 2006
Building 4, 1st floor, Office #21

Participants

Chair	Luis Epele
Co Chair	Paolo Giubellino
4 LHC expts	Nick Ellis
	Elie Aslanides
	Paolo Giubellino
	Hans Hoffmann
AUGER	Giorgio Matthiae
CERN	José Salicio Diez
CNGS	Ornella Palamara
DESY	Klaus Mönig
CERN TH	Luis Alvarez Gaumé
CERN Techn Transf	Marilena Streit Bianchi
CERN GRID	Pere Mato
Invited:	
HELEN HEP data base	Marilena Bianchi Streit
High School teaching Program	Mike Storr
Observers:	
HELEN'S Coordinator	Luciano Maiani
Deputy Coordinator	Veró nica Riquer
Members of the Standing Ex. Comm.	invited

What I expect from you in this Meeting is (i) to analyze critically what has been done so far as seen, in particular, from the point of view of groups and Institutions which are receiving the Grant-Holders, and (ii) to provide scientific advice and suggestions how to improve the process.
In the days following your Meeting, the Standing Executive Committee shall meet, also at CERN. I shall report to and discuss with them your conclusions, so that we can set to start the programme of the second year. Later, in fall, the Meeting of the Executive Board, which includes representatives of all Countries participating in HELEN, will finally approve the programme of the second year.

DRAFT AGENDA

CERN, June 19

14:00.	**Approval of the Agenda**
14:30	**Status Report: The first Year of HELEN (L. Maianl)**
15:15	**Establishing a HEP technology data base in Latin America**
15:45	**Coffee Break**
16:00	**Discussion: working methods of the SAC**
16:30	**Discussion: HELEN's first year**
18:00	**Summary of Conclusions by the Chair.**

CERN, June 19

9:30	**The second year's program and schedule (L. Maiani)**
10:00	**Coffee Break**
10:30	**Discussion on the second year**
13:00	**Summary of Conclusions and Recommendation**
14:00	**End of the Meeting**

We shall discuss SAC conclusions and recommendation later in this Meeting.

7. Comments and overview

1. To train young generations of physicists in **High Energy Physics**, in which Europe is world leader, thereby promoting fundamental physics in Latin American countries and contributing to the modernization of physics education there.
2. **CERN, DESY** and **Gran Sasso** facilities, in particular the **Large Hadron Collider** (LHC), **HERA** and their experiments, as well as the **Auger Experiment** in Argentina are fundamental tools for an advanced training programme.
3. To facilitate access of Latin American countries to the technological benefits in the accelerator, detector and information technology domains (**GRID** as an example).
4. To strengthen the integration of the European and Latin American Physics communities.

- HELEN is proving to be attractive for young people in LA, and effective in strenghtening collaborations
- interest increased by LHC approaching and AUGER working
- HEP data base started, contracts for High School Teachers program given...

...on the minus side:

- we have been late in starting and are late in spending;
- contacts between candidates-interlocutors-perspective tutors: margin for improvement
- visits of professors: scope not clearly prceived, it is somehow out of control
- review of HEP teaching has not started

and:

- could we do more to advertise HEP, disseminate results,...etc.??

Milestones (cont'd)

- Jul. 2006: Workprograms for 2nd year call, Grants put on the Web
- Sept. 2006: Intermediate technical and financial statement
- Sept. 2006: Audit and request for 2nd Year
- Oct. 2006: Grants for 2nd year approved
- Oct. 2006: Second year program to be approved by Executive Board.

"That much accomplished, so much left to do"