

To the HELEN Coordinator
Prof. L. Maiani
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CERN, June 20th, 2006

The Scientific Advisory Committee (SAC) of the HELEN project met at CERN on June 19th and 20th, 2006. Representatives of the main scientific lines of HELEN were present: the four LHC experiments, the CERN Theory Group, the GRID program, DESY, the CERN High School Teacher training program, the CERN Technology Transfer, the Gran Sasso Laboratory and the AUGER experiment.

The SAC would like first of all to compliment the management of HELEN for the effective and smooth operation of the project, which already in its first year has proven to be a powerful tool to promote High Energy Physics in Latin America, and to improve bilateral scientific cooperation between the EU and Latin America. More specifically, in several universities HELEN has served as a real bootstrap program which has launched academic activity and cooperation in the field of HEP, Astroparticle Physics and related technologies, while in others it has been instrumental to consolidate groups and to favour the active involvement of young scientists in world-class scientific activity. Contextually, a number of courses have been delivered in Latin American Universities, stirring interest in HEP, stimulating ideas and motivating cooperation. HELEN has also been a major factor in the active participation of young and senior European and Latin American Physicists in the AUGER experiment in Argentina.

A series of reports from each individual project stressed the impressive, very positive impact that HELEN has been able to have, both at the level of training of young scientist and for the actual scientific output of the projects themselves. Also the technology-oriented fields (Accelerators, technology transfer, GRID) showed very positive progress in the first year. HELEN has proven to be able to attract excellent candidates from all over Latin America, and has become a major factor not only in the collaboration between Europe and Latin American Universities, but to the development of High Energy Physics in the region in general. The outcome of the first year is so positive that the question is already posed of how to expand and prolong the program beyond the current plan.

Several comments were made on how, after the success of the first year, one could further improve the effectiveness of the program, in particular in view of the organization for the second year.

The main proposals on which general agreement has been found are the following:

- a) From the experience of the first year, we consider fundamental that the contact between the teams of origin and the hosting institution is made before the new call of fellowships is announced, to guarantee that each fellow will receive optimal training. In particular, a representative from the host Institution for the field of the fellowship should be involved in the definition of the work program and identify the perspective local supervisor or contact person. For each of the main fields for the fellowships the person of reference to be contacted shall be indicated.



- b) The High School Teacher's programs can make a major impact in LA countries thanks to its intrinsic multiplicative factor. It is recommended that the program is strengthened, in order to reach a large number of High School Science Teachers. In particular, it is proposed to establish a "mirror" program to the one managed by CERN. To this purpose a number of potential organizers of similar programs in LA will participate in the CERN HST program, and on the basis of this experience launch regional programs in Spanish and Portuguese.
- c) It would be very useful to have as flat as possible time profile for the number of trainees at CERN, avoiding in particular an accumulation during the summer months, which are also the ones during which housing is more problematic. It would be useful that the timing of each fellowship is discussed with the host institution, and in any case defined well in advance, at least two months prior to departure, so that housing and organizational problems can be avoided.
- d) For students and young trainees longer stays have proven more effective than short ones. On average an increase of the duration for these types of fellowships should be encouraged. This would make the fellowships more effective for the trainees while at the same time reducing travel costs and administrative overhead. Short visits of senior researchers from the same institutions should be timed to allow them to maintain a good link between the activity carried by the student at CERN and the work in the institute of origin. A sizeable fraction of shorter visits of senior scientists should be devoted to the supervision of the younger trainees.
- e) The visits of young researchers and professors from Europe to LA have proven very effective in promoting activity and collaboration, while longer fellowships of students have proven more difficult to organize, especially in the very special moment of the launch of LHC which makes CERN particularly attractive for research. Possibly, a modest shift from one kind of trip to the other might be advisable.
- f) Given the cost of living in the Geneva area and in particular of accommodation, it is essential that actions are taken to secure low-cost accommodation for the trainees.

Sincerely Yours,

For the SAC Committee
Dr. Paolo Giubellino
Co-Chair
HELEN SAC

