

CERN-Protocol N° P082/LHC

**PROTOCOL**

**to**

**THE CO-OPERATION AGREEMENT  
DATED 6 SEPTEMBER 2004**

**between**

**THE COMISION NACIONAL DE INVESTIGACION  
CIENTIFICA Y TECNOLOGICA DE CHILE (CONICYT)**

**and**

**THE EUROPEAN ORGANIZATION FOR NUCLEAR  
RESEARCH (CERN)**

**concerning**

**Participation of Institutions of Chile in High-Energy Particle Physics  
Experiments at CERN**

**2007**

THE COMISION NACIONAL DE INVESTIGACION CIENTIFICA Y TECNOLOGICA DE CHILE, hereafter referred to as "CONICYT", represented by its President, Mrs. Vivian Heyl,

on the one hand,

and

THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH, hereafter referred to as "CERN", represented by its Director-General, Dr. Robert Aymar,

on the other hand,

(hereafter referred to as "the Party" or "the Parties"),

#### CONSIDERING THAT:

- On 6 September 2004, CERN and CONICYT have signed a Co-operation Agreement concerning the further development of co-operation in fundamental scientific and technical research, hereafter referred to as "the 2004 Co-operation Agreement";
- CERN and the Republic of Chile share a common interest in expanding co-operation in fundamental physics research in Latin America, particularly in the Andean region;
- Particle physicists from the Republic of Chile are already participating in the ATLAS experiment at CERN's Large Hadron Collider (LHC), with particular interests in physics studies, data acquisition, informatics, simulation and electrical engineering;
- The continued exchange of scientific and technical personnel is a necessary element for the participation of the Republic of Chile in the fundamental physics programmes of CERN on a basis of reciprocity;

- The participation of Chilean researchers in an international, cutting-edge fundamental science project hosted by a European Intergovernmental Organization, through the education, training and professional development of researchers and through the transfer of technological know-how, will be of mutual benefit to both the Republic of Chile and the international science community,

**IT IS AGREED AS FOLLOWS:**

**ARTICLE 1  
Purpose of the Protocol**

- 1.1. The purpose of this Protocol is to provide a long-term operational framework for the participation of students and scientific and technical personnel of universities and research institutions of the Republic of Chile (hereafter collectively referred to as "institutions of the Republic of Chile") supported by CONICYT in fundamental high-energy physics experiments at CERN.

**ARTICLE 2  
Collaboration**

- 2.1. The Parties shall co-operate in the research, development and construction activities specified in this Protocol.
- 2.2. CONICYT shall set up dedicated collaborations between itself, CERN and institutions of the Republic of Chile, with a view to the participation of qualified Chilean scientific and technical personnel in:
  - 2.2.1. Theoretical and experimental high-energy physics;
  - 2.2.2. Electrical engineering and electronics;
  - 2.2.3. LHC Computing Grid (LCG) and associated information technologies;

- 2.2.4. and, subject to prior formal agreement by CONICYT and CERN, other projects related to high-energy physics, such as astrophysics and atomic physics.
- 2.3. The Parties shall use the results of their collaboration exclusively for peaceful purposes.
- 2.4. **Annex 1** lists the institutions of the Republic of Chile, together with their declared interests in participating in the respective research areas, as far as such information was available at the time of the signature of this Protocol. Other institutions can also be included in this Protocol if the Parties agree.
- 2.5. Any such collaboration shall only cease through the termination of the respective project, or of this Protocol, or by written agreement.
- 2.6. CERN may accept the participation of undergraduate students from institutions of the Republic of Chile in the CERN Summer Student programme, subject to financial terms and numerical quotas to be agreed on an annual basis between CERN and CONICYT.
- 2.7. Subject to full financial support from the Republic of Chile, CERN could also accept candidates from institutions of Chile in its programmes for Technical and Doctoral Students.
- 2.8. The Republic of Chile shall make its contributions under this Protocol in so far as these have formally been agreed by CERN and CONICYT, such as through Memoranda of Understanding for the construction, maintenance and operation of particle detectors or other formally agreed projects.

### **ARTICLE 3**

#### **Contributions by the Republic of Chile**

- 3.1. CONICYT shall request from the Government of Chile the funding required for the activities defined in this Protocol, in accordance in its internal procedures.
- 3.2. CONICYT, depending on its available budget, shall set up a "Chile Fund", in accordance with Article 5 of this Protocol.

## **ARTICLE 4 Co-ordination**

- 4.1. CONICYT shall execute this Protocol in close collaboration with CERN. To this end, CONICYT shall appoint a Chilean physicist as the Co-ordinator of this Protocol.

## **ARTICLE 5 The Chile Fund**

- 5.1. CONICYT shall ensure that the Chile Fund is used for the following purposes only:
  - 5.1.1. To cover the travel expenses and subsistence payments of Chilean physicists, engineers and technicians to allow them to participate in the CERN experimental programs;
  - 5.1.2. Contributions to cover the agreed "Construction" and "Maintenance & Operation Funds" for the CERN experiments in proportion to the Chilean participation;
  - 5.1.3. Expenditures for materials and equipment as required by students and scientific and technical personnel of the institutions of the Republic of Chile at CERN and which fall outside the normal technical support provided by CERN for visiting teams;
  - 5.1.4. Expenditures at CERN for materials and equipment to be used in Chile for research work by institutions of the Republic of Chile in relation to their collaborations with CERN via CONICYT.
  - 5.1.5. To cover the travel expenses and payments of Chilean students, to allow them to participate in the CERN-Latin American School of High-Energy Physics.
  - 5.1.6. Financial support for Chilean physics and engineering graduate students, for visits to CERN as part of their graduate training.

## **ARTICLE 6**

### **Personnel**

- 6.1. In the framework of this Protocol, CONICYT shall ensure the selection of personnel with the necessary skills and competence to take part in the collaborations.
- 6.2. The institutions of the Republic of Chile shall pay for the travel expenses and subsistence payments of their own personnel when coming to CERN, in case the contributions by the Republic of Chile or by other sources are insufficient for this purpose.
- 6.3. The Chilean researchers, for the duration of their presence at CERN, shall be given the status of Users or Unpaid Associates in the sense of the CERN Staff Rules and Regulations. They shall be assigned to Research Teams of the experimental Collaborations at CERN and/or to the CERN Departments. They shall be registered in the CERN Users Office and/or in the relevant CERN Department.
- 6.4. The Chilean researchers shall remain employees of their home institutions, which, as employers, shall bear exclusive responsibility for their remuneration and for the procurement of social security insurance, as well as health, accident and third party liability insurance at levels adequate for a stay in the CERN region.
- 6.5. Each Party shall take the necessary steps to ensure a level of protection for the personnel of the other Party, when being on its territory or, as the case may be, site, equivalent to that granted to the members of the personnel of an Intergovernmental Organization.

## **ARTICLE 7**

### **Implementation**

- 7.1. The responsibility for implementing this Protocol resides with CONICYT and CERN.

## **ARTICLE 8**

### **Safety**

- 8.1. The personnel of each Party shall comply with the rules for conduct and safety in force at the host establishment.
- 8.2. Any item or equipment constructed and used by personnel from either Party shall conform to the rules for industrial safety in force at the host establishment where it will be installed and operated.

## **ARTICLE 9**

### **Intellectual Property**

- 9.1. Without prejudice to the mechanism laid down in any applicable Memorandum of Understanding, the intellectual property rights resulting from the execution of this Protocol shall be jointly vested in the Parties, who herewith agree to grant each other a free, irrevocable and perpetual license to use such rights for any scientific, non-military purpose, including the right to sub-license such rights to any other party for scientific, non-military purposes. Each Party shall hold the other Party free and harmless from, and indemnify it for, any loss or damage resulting from its use (including any sub-licensing) of such rights.

## **ARTICLE 10**

### **Duration**

- 10.1. Subject to the continued validity of the 2004 Co-operation Agreement, this Protocol shall remain in force for an initial period of five years and shall thereafter be renewed automatically, each time for a new period of five years, unless a written notice of termination is given by one of the Parties to the other, or the Parties have agreed on its renewal by another period, at least six (6) months prior to the renewal date.

**ARTICLE 11**  
**Signature**

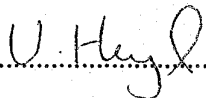
- 11.1. This Protocol shall be signed in the presence of Her Excellency President Verónica Michelle Bachelet Jeria. In consideration of their interest in the execution of this Protocol, and to witness their agreement to the scope of the work they shall thereby undertake, the Rectors of the Pontificia Universidad Católica de Chile and the Universidad Técnica Federico Santa María shall add their signatures to those of the authorized representatives of the Parties.

**ARTICLE 12**  
**2004 Co-operation Agreement**

- 12.1. This Protocol shall form an integral part of the 2004 Co-operation Agreement, whose terms shall apply hereto insofar as this Protocol does not stipulate.

Done in Geneva on 3 June 2007 in four copies in the English language and four copies in the Spanish language, both versions being equally valid.

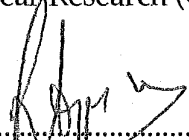
For the Comisión Nacional de  
Investigación Científica y Tecnológica  
de Chile (CONICYT)



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Mrs. Vivian Heyl  
President

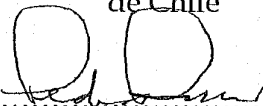
For the European Organization  
for Nuclear Research (CERN)



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Dr. Robert Aymar  
Director-General

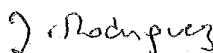
For the Pontificia Universidad Católica  
de Chile



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Prof. Pedro Pablo Rosso  
Rector

For the Universidad Técnica Federico  
Santa María



.....

Prof. Jose Rodriguez Perez  
Rector



## **ANNEX 1**

**Institutions of the Republic of Chile together with their declared interests in participating in the respective research areas as far as such information is already known at the time of the signature of this Protocol.**

### **Institutions of the Republic of Chile**

1. **PUC** Pontificia Universidad Catolica de Chile, Santiago
2. **UTFSM** Universidad Tecnica Federico Santa Maria, Valparaiso
3. **UACH** Universidad Austral de Chile, Valdivia
4. **USACH** Universidad de Santiago, Santiago

### **Declared interests**

1. Theoretical and experimental particle physics:
2. Electrical engineering and electronics:
3. LHC Computing Grid (LCG) & associated information technologies:
4. Other projects related to high-energy physics, such as astrophysics and atomic physics.