ADDENDUM

to

THE MEMORANDUM OF UNDERSTANDING FOR A MULTI-LATERAL COLLABORATION

between

THE INSTITUTIONS AND FUNDING AGENCIES OF THE CTF3 COLLABORATION

concerning

THE CONTRIBUTION OF THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)

TO THE CTF3 COLLABORATION

November 2005

CONSIDERING:

The Memorandum of Understanding ("the MoU") defining the framework applicable to the construction of a 3rd generation Compact Linear Collider Test Facility (CTF3) and the performance of Experiments to demonstrate the feasibility of key issues of the CLIC scheme;

That Article 1.2 of the MoU envisages Addenda defining each contribution pledged to the CTF3 Collaboration,

THE EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN), in its capacity as Member of the CTF3 Collaboration, **HEREWITH AGREES** to make the following contributions:

Already provided until/inclusive 31 December 2004

- The total capital cost of previously existing CERN facilities, equipment and other items made available by CERN to the Collaboration until/inclusive 31 December 2004 is valued at 40 MCHF.
- The new equipment made available by CERN to the Collaboration until/inclusive 31 December 2004 is valued at 16 MCHF.
- The manpower, rated at 150 kCHF per man-year, made available by CERN to the Collaboration and used before 31 December 2004 amounts to 100 man-years.

CERN shall assume responsibility for the provision of the following in-kind contributions to CTF3:

- Power converters for the magnets of the Transfer Line 1 (TL1) and the Combiner Ring (CR): 0.86 MCHF
- 3 GHz waveguides for the CR: 0.1 MCHF
- CLEX building to be built during 2006 and to be ready for installation of material in 2007. Estimated cost about 2.5 MCHF
- Technical services, infrastructure of CTF3 buildings, maintenance and exploitation of the whole complex (other than the facilities defined in Article 5.1 of the MoU); estimated to be on average 0.5 MCHF/year
- Daily project management

And jointly with other Members:

- Magnet system for the Combiner Ring (jointly with BINP): delivery foreseen in November 2005, cost for CERN: 0.33 MCHF

- Detailed design and manufacture of components for TL1 and CR : 0.6 MCHF
- Pumps, gauges and control equipment of the vacuum system for TL1and CR for installation in 2005/2006 : 0.2 MCHF
- Infrastructure, installation of equipment and cabling of TL1 and CR in 2005/2006 : 1.6 MCHF
- Controls hardware and software for TL1 and CR : 0.1 MCHF
- CTF3 commissioning, operation and testing
- CLIC accelerating structure and PETS development, ongoing until 2009, estimated to be about 0.8 MCHF/year.
- For the Probe Beam, built under the responsibility of CEA/DAPNIA and IN2P3/LAL and LAPP,

  - Preparation chamber for photocathodes,
  - LIL accelerating sections incl. accessories
  - One klystron
  - Hardware for Low level RF system
  - Power supplies for magnets
  - RF deflector
  - Vacuum valves and pumps
  - Cooling water infrastructure
  - Hardware and VME cards for controls system

  the value of the equipment is estimated to be 1.95 MCHF.

- CERN participation in the ISTC-supported programme towards the development of a 30 GHz high power RF source by IAP: 75 kCHF

The manpower for these activities is covered by the CERN Medium Term Plan (MTP) and will be about 25 man*years per year.

This Addendum shall form an integral part of the MoU.

Done in Geneva on 30 November 2005

For the European Organization for
Nuclear Research (CERN)

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Director-General, R. Aymar