

ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE (CERN)
EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH (CERN)

ADDENDUM No. P066/LHC/A3

to

**THE PROTOCOL DATED 7 JULY 2003,
AS EXTENDED ON 6 SEPTEMBER 2006 AND 27 JUNE 2011**

to

THE 1994 CO-OPERATION AGREEMENT

between

THE GOVERNMENT OF THE ISLAMIC REPUBLIC OF PAKISTAN

and

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

concerning

**Scientific and technical contribution of Pakistan
in the CLIC study at CERN**

2013

The European Organization for Nuclear Research ("CERN"), an Intergovernmental Organization with its seat at Geneva, Switzerland, represented by its Director-General, Rolf-Dieter Heuer,

on the one hand,

and

The Pakistan Atomic Energy Commission ("PAEC"), represented by its Chairman, Ansar Parvez,

on the other hand,

hereafter collectively referred to as the "Parties" and individually as the "Party",

CONSIDERING THAT:

- On 1st November 1994, CERN and the Government of the Islamic Republic of Pakistan have signed a Co-operation Agreement concerning the Development of Scientific and Technical Co-operation in the Research Projects of CERN (hereafter referred to as the "1994 Co-operation Agreement");
- On 7th July 2003, CERN and PAEC have signed a Protocol to the 1994 Co-operation Agreement concerning a special contribution by Pakistan towards the construction of the LHC (hereafter referred to as the "Protocol");
- The Protocol was extended for the first time on 6th September 2006 and for the second time on 27th June 2011;
- Pursuant to Article 3 of the Protocol extension of 6th September 2006, the scope of the Protocol was broadened, providing that each reference to "*the Construction of the LHC*", "*the LHC Project*", "*the LHC construction*", "*LHC machine and/or detector components*" and "*the LHC Programme*" in the Protocol is understood to refer to any construction or upgrade activities for CERN accelerators and/or approved experiments;
- Therefore, the Protocol provides for an operational framework for the scientific and technical collaboration of Pakistan in the CLIC study at CERN;

- Article 3.2 of the Protocol provides that the precise contents, delivery schedule, shall be mutually agreed on a case-by-case basis and, prior to the making of any financial commitments by either Party, shall be laid down in addenda to the Protocol;
- This addendum (hereafter referred to as the "Addendum") shall form an integral part of the Protocol to the 1994 Co-operation Agreement. In case of conflict between the terms of this Addendum and the terms of the Protocol, the terms of this Addendum shall prevail.

HAVE AGREED AS FOLLOWS:

Article 1 Scope of the Addendum

This Addendum sets out the details and modalities of the scientific and technical contribution of PAEC to the CLIC study at CERN (hereafter referred to as the "CLIC Work"). It also specifies CERN's contribution to the collaboration.

Article 2 The PAEC contribution

PAEC shall contribute to the CLIC Work by making available experts (the "Experts") who will participate in the CLIC design studies, CTF3, electronics, physics, x-band production and two-beam module development, in collaboration with the CERN Beams Department. The Parties shall jointly establish the detailed modalities of the activities of the Experts and set these out in annexes to this Addendum. Each annex will be signed by technical persons responsible for the two parties. Annex-1 which is already operative will become integral part of the Addendum.

Article 3 The CERN contribution

- 3.1 CERN shall contribute by making available office facilities, workshops, equipment (including, where applicable, dosimeters and Oxy boxes for work in radiation risk areas, and any other standard CERN safety item that may be required), tooling, materials and services (hereafter referred to as the "Facilities") on the CERN site as required for the execution of the work by the Experts. The Facilities shall remain the property of CERN and are made available without any warranty or liability for any loss or damage resulting from their use. PAEC shall take proper care of the Facilities until the completion of the Experts' work. The Parties shall agree on the cost of the repair, or the replacement of any item that cannot be repaired, and such cost

shall be deducted from any amount payable by CERN to PAEC under this Addendum.

- 3.2 In consideration of the important costs to be incurred by PAEC in the execution of its contribution, included but not limited to overhead costs, CERN shall assist through payments into the Pakistan Fund. The amounts of such payments shall be specified in the annexes setting out the detailed modalities of the activities of the Experts at CERN.

Article 4

Co-ordination

The Parties shall each nominate a Technical Co-ordinator, who together shall co-ordinate the technical execution of this Addendum. CERN's Technical Co-ordinator will be Germana Riddone and PAEC's Technical Co-ordinator will be communicated to CERN by co-chairperson of JCPC from Pakistan.

Article 5

Status at CERN of the PAEC Experts

- 5.1 The Experts shall have the status of Associates Member of the Personnel under the CERN Staff Rules and Regulations for the duration of the execution of their work.
- 5.2 The Experts shall remain employees of PAEC, which, as their employer, shall bear exclusive responsibility for their remuneration and for the procurement of social security cover. Such cover must include health insurance covering the financial consequences of professional and non-professional illness and accidents at a level that is adequate for both Switzerland and France. PAEC shall hold CERN free and harmless from any liability in connection with the foregoing. Any accompanying members of the family must also have health insurance covering the financial consequences of non-professional illness and accidents at a level that is adequate for both Switzerland and France.
- 5.3 During the period of their association with CERN, the Experts shall be subject to the rules and regulations, including in particular the safety rules and regulations and the rules of conduct, applicable on the CERN site.

ARTICLE 6

Publications

- 6.1 The Parties shall strive to jointly publish the results of the collaboration as Open Access publications.
- 6.2 In so far as the Parties do not jointly publish the results of their collaboration, publications by one Party involving results developed by the other Party shall be subject to the latter's prior written approval, which shall not be withheld unreasonably.
- 6.3 Publications shall acknowledge the collaboration between the Parties including, whenever appropriate, the personnel having taken part in the development of the results covered by the publication.

Article 7

Liability

Each Party shall bear its own loss and damage in connection with this Addendum, except as stipulated in Article 5.2 of this Addendum, for loss or damage resulting from gross negligence or wilful misconduct by the other Party, or from a violation by the latter of the safety and other rules in force at the host Party, in which cases the responsible Party shall indemnify the other Party for its loss and damage. Notwithstanding the foregoing, the Parties shall in no event be liable to each other for any consequential loss or damage, such as loss of income or of availability of data or installations.

Article 8

Termination

- 8.1 In the event of a substantial breach by PAEC of its obligations under this Addendum, CERN may terminate this Addendum in whole or in part if no corrective action satisfactory to CERN is taken within two months of the issue of a letter of notice by CERN to PAEC. In the event of such termination by CERN, PAEC shall reimburse CERN for all costs wholly and necessarily incurred by it as a result of such termination.
- 8.2 In the event of a substantial breach by CERN of its obligations under this Addendum, PAEC may terminate this Addendum in whole or in part if no corrective action satisfactory to PAEC is taken within two months of the issue of a letter of notice by PAEC. In the event of such termination by PAEC, CERN shall reimburse PAEC for all costs wholly and necessarily incurred by it as a

result of such termination. The amount of such reimbursement shall not exceed the remaining amount payable by CERN to PAEC as of the date of termination of this Addendum.

Article 9

Governing law and dispute resolution

- 9.1 The terms of this Addendum shall be interpreted in accordance with their true meaning and effect and, as a consequence of CERN's status as an Intergovernmental Organization, independently of national and local law. Provided that if and insofar as this Addendum does not stipulate, or any of its terms is ambiguous or unclear, then in those circumstances only and solely in respect of those circumstances and not in respect of this Addendum as a whole, reference shall be made to Swiss law.
- 9.2 If any dispute under this Addendum fails to be settled amicably, the Parties shall resort to the arbitration procedure adopted by CERN in accordance with its status as an Intergovernmental Organization. Notwithstanding reference of any dispute to arbitration, the Parties shall continue to perform their obligations under the Addendum.

Article 10

Contact persons

All documents concerning this Addendum shall bear the reference:

Addendum No. P066/LHC/A3

PAEC shall send:

Documents of technical nature to the CERN Technical Co-ordinator:

Germana Riddone
BE Department, CERN
CH-1211 Geneva 23
Switzerland

Invoices to:

CERN – Finance and Procurement Department
Accounts Payable
CH-1211 Geneva 23
Switzerland

CERN shall send all documents to PAEC's Technical coordinator.

Drawn up in two copies in the English language and signed for

The European Organization
for Nuclear Research (CERN)



Dr. Rolf-Dieter Heuer
Director-General

The Pakistan Atomic Energy
Commission (PAEC)



Dr. Ansar Parvez
Chairman

Date 26.07.2013

Date 08-10-13

Annex 1

PAEC Experts in the study and development of tooling

Six PAEC Experts shall participate in the study and development of the dedicated equipment needed for the fabrication of the x-band accelerating structures, as well as the assembly and testing of the two-beam modules, at CERN.

The Experts will have to be familiar with Computer-Aided Design (CAD) software, such as CATIA, as well as with the fabrication and assembly of micro-precision components.

The six PAEC Experts who will perform these activities shall be:

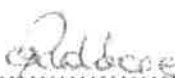
S #	Name & Designation	Departure Date
1.	Mr. Muhammad Zahir Shah, SE	03-04-2013 (for 6 months)
2.	Mr. Muhammad Zubair, Tech-II	03-04-2013 (for 3 months)
3.	Mr. Javed Iqbal Bodla, Pr. Tech	23-06-2013 (for 3 months)
4.	Mr. Riaz Muhammad, SE	15-09-2013 (for 6 months)
5.	Mr. Safeer Ahmad, Sr. Tech	15-09-2013 (for 3 months)
6.	Mr. Tassawar Ali, Tech-II	08-12-2013 (for 3 months)

The duration of the intervention of each Expert at CERN shall be:

1. Six months for the mechanical engineer (S # 1 & 4)
 2. Three months for the technician (S# 2, 3, 5, 6)
- Starting dates are indicated in the table above.

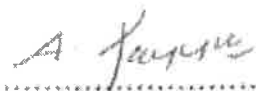
The payments to be made by CERN into the Pakistan Fund, in accordance with Article 3.2 of the Addendum, shall amount to 25'000 CHF for the mechanical engineer and 12'500 CHF for the technician. The returned airfare will be paid by CERN in cash after receiving invoice from the PAEC engineer/technician. Medical insurance will be the responsibility of the PAEC expert.

The European Organization
for Nuclear Research (CERN)


.....
Dr. Germana Riddone
CERN Technical Co-ordinator

Date 22/03/2013

The Pakistan Atomic Energy
Commission (PAEC)


.....
Dr. Abdul Qayyum
PAEC Technical Co-ordinator

Date 04/07/2013

Annex 2

Addendum No. P066/LHC/A3 to Protocol 2003

PAEC Scientists for beam dynamics and RF acceleration

Four PAEC scientists/engineers shall participate in the study and development of beam dynamics and RF acceleration for the fabrication of the x-band accelerating structures, as well as the assembly and testing of the two-beam modules, at CERN. They will also take part in commission and operation of CTF3 facility.

The Experts will have to be familiar with basic accelerator physics, software for beam dynamics and optics, such as MADX, SIMION, as well as with the concepts of vacuum and high voltage handling.

The four PAEC Experts who will perform these activities shall be:

S #	Name & Designation	Departure Date
1.	Mr. Kashif Yaqub, SS	15-09-2013 (for 6 months)
2.	Mr. Muhammad Asif Khan, PS	15-09-2013 (for 6 months)
3.	Mr. Syed Suleman Daud, SE	15-03-2014 (for 6 months)
4.	Mr. Danish Ali Nawaz, SS	15-03-2014 (for 6 months)

The duration of the intervention of each Expert at CERN shall be initially six months. Starting dates are indicated in the table above.

The payments will be made by PAEC through Pakistan Fund, in accordance with Article 3.2 of the Addendum, shall amount to 15'000 CHF for each scientist/engineer. The returned airfare will be paid by PAEC. Medical insurance will be the responsibility of the PAEC expert.

The European Organization
for Nuclear Research (CERN)



Dr. Germana Riddone
CERN Technical Co-ordinator

The Pakistan Atomic Energy
Commission (PAEC)



Dr. Abdul Qayyum
PAEC Technical Co-ordinator

Date 26.09.2013

Date 08.10.2013